

Edited by R. Gwynn Ellis

No. 68

Dept. of Botany, National Museum of Wales

Cardiff CF1 3NP



× *Conyzigeron huelsenii* at Beckton, del. Brian Wurzell © 1994 (see page 32)

ADMINISTRATION

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Year Book 1995.*)

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NOTICE TO MEMBERS COUNCIL NOMINATIONS

Nominations for vacancies on Council, in writing, signed by two members of the Society and accompanied by the written consent of the candidate to serve, if elected, should be sent to the Hon. General Secretary, at the above address to arrive BEFORE FEBRUARY 1st 1995 (see *Yearbook 1995* for the list of present Council members May 1994-1995).

MARY BRIGGS, Hon. General Secretary

**CONTRIBUTIONS INTENDED FOR
BSBI NEWS 69
should reach the Editor before
FEBRUARY 28 1995**

COMMENT

BRITAIN AND EUROPE?

1994 was a year of most significant achievement by the Society and its members. It was a period during which about ten local Floras were published – one, for Radnor, for a county which had never had one before and others, like Glamorgan, Northumberland and West Yorkshire, where their last comprehensive Floras are now nearly a century or more out-of-date. Then, in November, at the London Exhibition meeting two books of major national and international importance were on display for the first time – *Scarce Plants in Britain* and *Alien Plants of the British Isles*.

I hope that, by now, you have taken up the pre-publication offers for both these volumes (surely justification alone for belonging to the BSBI) and have already appreciated how invaluable they will be in the future. *Alien Plants* expands still further the start which Clive Stace gave us in his *New Flora of the British Isles* of making us aware of the great range of species which can grow in the wild in this benign climate of ours and which means you do not need to go abroad to enjoy foreign plants.

Scarce Plants in Britain is the most important contribution to the conservation of our native British plants to be published for a generation. Everyone concerned about the future of the British flora and the protection of its diversity will have to absorb its implications. Its results will influence the next edition of the Red Data Book and the Quinquennial Review of the Schedules to the Wildlife and Countryside Act and, perhaps more significantly, it should provide facts and stimulation for the production of County Red Data Books and Lists – the recommended criteria for which include all ‘Scarce Plants’.

But appreciation of the importance of both books will not be confined to readers in these islands. It may be fortuitous that they were both published in the same month that the first rail service opened between London, Paris and Brussels but it is a symbolic reminder of how close we are to Europe and how much of our floras we share in common. This suggests that we should work much more closely with our neighbours in studying the flora and carrying out research and taking action aimed at protecting threatened species.

It therefore seemed timely to invite colleagues from NW Europe to join us for a conference in February 1995 to discuss present progress and future prospects for studying the taxonomy and distribution of our common flora – and they are coming from Scandinavia, Holland, Belgium and France. At the conference we will not only report on *Alien Plants* and *Scarce Plants* and their implications but we will also be disclosing our plans for the *New Atlas* project and exchanging views on methodology with those similarly engaged in NW Europe using the 10 km squares, tetrads and 1 km squares which we pioneered.

1995 will be no year for resting on laurels (even if you can now identify them!) – it is the year when all of us should be out in the field helping to give the *New Atlas* project a tremendous lift-off. Make contact with your vice-county Recorder if you want to help – and involve your friends or your local botanical group or natural history society – and give them all membership forms: they may have missed the pre-publication offers for ‘Aliens’ and ‘Scarce Plants’ but, with ‘Pondweeds’ imminent and the *New Atlas* to come, they can hardly resist joining such a vigorous and worthwhile Society.

FRANKLYN PERRING, President

DIARY

N.B. These dates are supplementary to those in the 1994 Calendar.

1995

FEBRUARY

- 4 *Botanical Latin* meeting, Reading (see *BSBI News* 67 p. 58)
 9 Joint BSBI/Linnean Society Conference, London (see *BSBI News* 67 p. 58)
 25 Natural History Museum Open Day (see page 26)

MARCH

- 25 Natural History Museum Open Day (see page 26)

APRIL

- 16 National Phone Day (see *BSBI News* 67 p. 59)

JUNE

- 4 *Cotoneaster* Open Day (see page 44)

JULY

- 29 IOPB VI International Symposium, Tromsø, Norway (see *BSBI News* 67 p. 60)

OCTOBER

- 8 *Cotoneaster* Open Day (see page 44)

See also page 65 for dates of 1995 Botany Tours at home and overseas

EDITOR

EDITORIAL



Edgar Wiggins (1911-1993), Editor *BSBI News* 15 (1977) - 42 (1986). May he rest in peace

Happy New Year to one and all. Let's hope that 1995 is as successful as 1994; two books published in late November will take some beating. Well done Alison David & Chris for *Scarce Plants in Britain* and Eric & Sally for *Alien Plants of the British Isles*.

Global Warming – hotter or colder?

I have long assumed that if 'Global Warming' occurs, our temperatures will rise and many of our native plants will migrate northwards, their places taken by alien invaders from southern Europe. This assumption has now been challenged.

I recently heard a snippet of news on the radio that implied that 'Global Warming' could decrease not increase the temperature over the British Isles. Increased world temperatures, so the theory goes, could result in more icebergs breaking away from the polar ice caps. As these melting bergs drift south they would cool the surrounding waters which could affect the Gulf Stream. Any weakening of this warm current could result in our climate getting colder accompanied by a southwards migration of native arctic-alpines!

EDITOR

REGIONAL JOURNALS

IRISH BOTANICAL NEWS

Irish Botanical News is published annually, usually in February and is circulated free to all members living in Ireland and to non-resident Irish vice-county recorders. Printing and distribution costs are approximately £1.50. Consequently, cheques, made payable to BSBI, in multiples of £1.50, up to a maximum of four will ensure that you receive copies as they are published. If printing costs are considerably less, the balance will be carried forward.

BRIAN S. RUSHTON, Dept. of Biological and Biomedical Sciences, University of Ulster,
COLERAINE, Northern Ireland BT52 1SA

BSBI WELSH BULLETIN

The *BSBI Welsh Bulletin* is normally published twice yearly. It is circulated free of charge to all members living in Wales and to non-resident Welsh vice-county recorders. Most back issues are still available on request (originals or photocopies) and an index to the first 50 issues is available. Orders should be sent to Dr G. Hutchinson, Dept. of Botany, National Museum of Wales, Cathays Park, CARDIFF CF1 3NP, specifying the issue number (or year, which would have to include the season or month), together with a cheque (made payable to BSBI Wales) @ £1 per issue (includes p. & p.). The current issue is no. 57, Summer 1994. For long runs the price is negotiable - contact me at the address below. If you would like to subscribe to the *Welsh Bulletin*, send your cheques, to cover as many years as you wish, to me and I will inform you when your subscription is due to expire.

GWYNN ELLIS, Dept. of Botany, National Museum of Wales, Cathays Park, CARDIFF CF1 3NP

THE SCOTTISH NEWSLETTER

The Scottish Newsletter is published each spring and sent to members resident in Scotland. Members outwith Scotland who would like to receive a copy are invited to open an account from which the cost of postage will be deducted each year. Those interested should send a remittance (of not less than £2.00) made out to me at the address below. As is the case for members who have already subscribed, they will be informed when a top-up is necessary.

PETER MACPHERSON (Joint Editor), 15 Lubnag Road, Newlands, GLASGOW G43 2RY

HON. GENERAL SECRETARY'S NOTES

The Burren Since the publication of the outline programme for the 1995 AGM in Dublin (*BSBI News* 67.2 – Important Notice), the Irish Committee has arranged a field meeting to the Burren, with especially in mind BSBI members visiting Ireland for the AGM. This meeting will be on the Monday (15th May) to Wednesday (17th May), with details published in the Field Meetings Programme, *BSBI Year Book 1995* page 14 and the AGM Programme leaflet distributed with this *BSBI News*.

The Presidents' Award An anonymous donor has generously sent £4,000 to fund an Award of £200 to be made annually, if merited. It will acknowledge the most useful contribution to the understanding of the flowering plants and ferns of the British Isles, through a book, major paper, discovery or outstanding exhibit during that calendar year.

The recipient (or joint recipients) will be chosen by the Presidents of the BSBI and the WFS, after consultation if necessary. The first Award will be presented at the BSBI AGM 1995, together with a Certificate signed by the two Presidents.

The founding of the Award is announced in this *BSBI News* 68 and in the WFS Spring Magazine 1995.

Appointments of Hon. Secretaries and Hon. Editors are usually made in May following the AGM, but in some cases it is more appropriate to link a change with the end of a calendar year, or the publication of a Journal. This is so for Elinor Wiltshire, who retires on December 31st 1994 after 5 years as Hon. Field Secretary. Elinor arranged field meetings in England, the Channel Islands and the Isle of Man, and each year co-ordinated the Field programme to include the meetings arranged for Ireland, Scotland and Wales by their Committees; Elinor has prepared another good programme for 1995 – published in the *BSBI Year Book 1995* pages 13-24 – and we record our thanks to her for all these excellent programmes.

From January 1st 1995 we welcome Margaret Lindop as Hon. Field Secretary; Margaret will be responsible for the administration of the 1995 meetings, and for preparing the programmes for future years, and she will be pleased to hear from members with suggestions and/or offers to lead field meetings.

Since 1987 John Edmondson has been the book reviews Hon. Editor, and we record our thanks to him also. John will edit and proof-read all books currently under review for publication in *Watsonia* 20(3 & 4) in 1995. He also remains as a paper editor for *Watsonia*.

From January 1995 we welcome Chris Preston as *Watsonia* book reviews Hon. Editor, and Chris will edit the reviews for publication in *Watsonia* 21(1), 1996 onwards. Correspondence on new books for review should now be sent to Mr C.D. Preston, ITE, Monks Wood, Abbots Ripton, Huntingdon PE17 2LS (and see Editors, *Watsonia* in *BSBI Year Book 1995* page 9).

Far-flung Travellers. Having changed planes in Bangkok on my night flight from Australia, a distant rear-view of a figure in the dim night lighting of the plane was reminiscent of Lynne Farrell (and it set my mind towards BSBI commitments awaiting my return). Sure enough, early next morning it was Lynne – returning from Kuala Lumpur, from rain forest canopy walkways on a botanical holiday in Malaysia – I was able to request a note from her on her new appointment and address for this *BSBI News*! (See page 44).

MARY BRIGGS, Hon. General Secretary

RECORDERS AND RECORDING

Changes in Recorders and Referees

Updated lists are published in *BSBI Year Book 1995*. We extend a warm welcome to all newly appointed Recorders and Referees as listed there on pages 26-30 and 31-37.

New Recorders:

v.c. 59 S. Lancs Peter Gateley
v.c. H29 Co. Leitrim Don Cotton

and note also a change of address for:

v.c. H34 E. Donegal Pauline Hodson

New Referees:

Charophyta *General Referee*: Nick Stewart (and note his new address in Devon)

Apiaceae (Umbelliferae) *additional General Referee*: Mervyn Southam

Asteraceae (Compositae) *Erigeron Referee*: Geoffrey Halliday

Cyperaceae *additional General Referee*: David Simpson

Introduced and Cultivated Trees: Cameron Crook

Cameron who is senior Forestry Officer for Cheshire County Council sends the following note on the trees which he is offering to Referee:

Introduced and Cultivated Trees (Coniferous and Broadleaved)

1. *Cultivated and Ornamental* Tree species and their *Varieties* planted in streets, parks and gardens which are not native to the British Isles but which may or may not be naturalised. This would also include Cultivars of native species and artificial hybrids.
2. Native would be defined as those tree species which colonised the British Isles by natural means since the last Ice Age as suggested by Mitchell (1974). Introduced would be as Stace's definition (i.e. all other species).
3. Any Tree species listed under '*Other Species*' in *New Flora of the British Isles*, Clive Stace.
4. All *Forestry* crops.
5. Introduced but well established or naturalised tree species.
6. Any other tree species which is undeterminable

Again we sincerely thank the retiring Recorders or Referees for their long years of good service to the Society. Vera Gordon, Recorder for S. Lancs. for 35 years (is this a record?), and Daniel Kelly for 8 years in Co. Leitrim. Jenny Moore has been Charophyta Referee for more than 15 years, and during this time wrote the BSBI handbook *Charophytes of Great Britain and Ireland*. We send thanks to them all on behalf of the many members whom they have helped with records and identifications, and from the Society for their major contribution through the years.

MARY BRIGGS, Hon. General Secretary

NEW ATLAS 2000

We do not yet have definite funding, but hope to have it within the next few months. Consequently we cannot have a paid project organiser in post for the start of the 1995 season.

Despite this we would like those of you who can to use this season fully for recording in the field, preferably in those areas most in need

Vice-county Recorders will normally be responsible for organising the fieldwork in their counties, advised and assisted by Regional Coordinators. There are 12 of these for England, Scotland & Wales, listed below. Similar arrangements are expected to apply for Ireland.

England:	SW	S, 1-6, 9	David Pearman
	S	7-8, 10-14, 33-34	Mark Kitchen
	London, SE	15-24	Rodney Burton
	Midlands	36-40, 55-58	Graeme Kay
	E Anglia	25-32, 53-54	Terry Wells
Scotland	NW & Man	59-65, 69-71	Phyl Abbott
	NE	105-109, 111-112	Ken Butler
	NW	97-98, 100-104, 110	Bernard Thompson
	E	85, 87-96	David Welch
	SW	72-77, 86, 99	Allan Stirling
Wales	SE and NE England	66-68, 78-84	Michael Braithwaite
	all	35, 41-42	Gwynn Ellis

The responsibility for compiling the records for each square will be allocated to one individual, chosen by the v.c Recorder (or his delegate for the project).

In the next few months we need to agree who is to be responsible for each square and decide how we are to deal with those areas where the resident botanists are unable to cope by themselves. In general, such areas are likely to be concentrated in the remoter and rougher parts of the country and we would be extremely grateful for outside help in such areas.

For those of you, hopefully the majority, who would like to join this project, the first step is to liaise with your v.c. Recorder. Requirements will differ from county to county depending on the state of local recording and could range from highly specific requests for refining certain species to general assistance in 10 km recording. Alternatively some of you may be happy to record when you are on holiday and this will be particularly welcome in the remoter parts, e.g. of northern Scotland and of Ireland. If you know beforehand, do make contact with the relevant Recorder since he/she may be able to suggest priority areas for attention.

Field cards are already available, except for Ireland, from Chris Preston at Monks Wood, D. M'Kean at RBG, Edinburgh or Gwynn Ellis, at NMW, Cardiff.

DAVID McCOSH, Hon. Secretary, Records Committee

PLANT STATUS NOMENCLATURE

In view of the plethora of terms used to describe the status of plants growing wild in the British Isles and the different interpretations of definitions used by various authors (Macpherson 1993) it was agreed by BSBI Council that a Plant Status Working Group be set up to produce an agreed list of unambiguous terminology, the expectation being that such terminology would be adopted for use by members of the BSBI in their botanical publications

The Working Group comprises P. Macpherson (convenor), J.H. Dickson, R.G. Ellis, D.H. Kent and C.A. Stace.

It is the opinion of the Working Group that few basic terms should be used but that that did not preclude additional qualifying terms being used when the information was available.

The following are the draft definitions suggested.

Plant Status Nomenclature

Native

- 1] Present in the study area, without intervention by man, whether intentional or unintentional, having come from an area in which it is native;
or
- 2] Arisen de novo in the study area.

Endemic

A taxon found only in the study area.

Alien

- 1] Brought to the study area by man, intentionally or unintentionally, even if native in the source area,
or
- 2] Come to the area without man's intervention, but from an area in which it is alien.

Categories of alien

- a] **Established / Naturalised**
A taxon which has been present in the wild for (say) \geq five years and is regenerating vegetatively or producing viable seed
- b] **Persistent**
A taxon which has been present in the wild for (say) \geq five years and is neither regenerating vegetatively nor producing viable seed.
- c] **Casual**
A taxon which is briefly (say \leq five years) or intermittently present.

Method of arrival

- a] By natural means
- b] By unintentional activity of man
- c] By intentional activity of man

We have spent considerable time on the topic 'Method of arrival', considering that this is important in respect of the status of an alien. We would appreciate suggestions for descriptive nouns for these categories. For example we considered for a] *migrant*, b] *contaminant*, *stowaway*, c] *hortal*. However, particularly with regard to b] and c] these terms do not cover all the possible methods of arrival within the sub-category.

Comments and suggestions on this paper will be welcomed and acknowledged. They should be sent to the convenor at the address below.

Reference

Macpherson, P. (1992). Colonisation of the Glasgow Garden Festival Site three years on: implications for recording. *Watsonia* **19**: 169-179.

PETER MACPHERSON, 15 Lubnaig Road, GLASGOW, G43 2RY

ANOTHER SITE FOR THE NON-STINGING NETTLE

Urtica galeopsifolia Wierzb. ex Opiz has been described in detail by D.V. Geltman who considers it to be a distinct species (*Watsonia* 19: 127-129 (1992)). Known as the Fen Nettle from its occurrence at Wicken Fen in Cambridgeshire, he records sites in East and Central Europe where it is well distributed

This summer, I was able to accompany Dr Alison MacDonald and Miss Ann Hutchison to the river at Wylze. Here we bravely touch-tested all the nettles along the bank and found to our amazement that no histamine release was inflicted! The species was verified as *Urtica galeopsifolia*.

Geltman describes other features to distinguish the species from *U. dioica*, the different location of the inflorescence, later flowering and slightly narrower leaves, but the absence of the slender silicaceous stinging-hairs is perhaps the most reliable distinguishing feature. I have also found it in Somerset at Ashcott (but possibly a hybrid). It may well be that this plant is more widely distributed along wet meadows than has been recorded.

BARBARA LAST, The Stables, Berwick St James, SALISBURY SP3 4TN

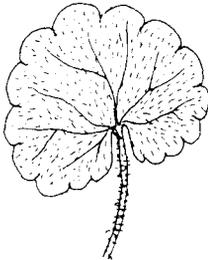
WINTER BOTANIZING

Summer is so taken up with gardening, holidays and entertaining that all too frequently one reaches autumn with a feeling of guilt and regret for what might have been. I find that I have far more time to walk in winter and am steadily improving on my vegetative identification. I would like to put forward two species that are far more obvious and easier to identify from November to March.

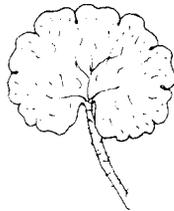
Chrysosplenium alternifolium – Alternate-leaved Golden-saxifrage

With greater experience I can now see that the leaves are totally different from those of *C. oppositifolium*. I had spent hours testing them to see whether they are opposite or alternate – a complete waste of time! The leaves of *C. alternifolium* are single, stalked, large and round, with a distinct dip in each lobe, and, vegetatively, can only be confused with those of *Glechoma hederacea* (Ground Ivy). But it can be separated from that species by the little bristles rather than hairs on the upper surface, by the dip in the lobe and by the vein pattern on the underside.

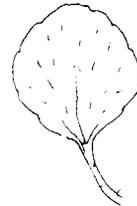
By May the competing vegetation has hidden most colonies, but from October onwards the leaves are clearly visible, often in sites where summer access, through nettles or other tall herbs, would be all but impossible. *C. alternifolium* is confined in Dorset to a small area in the north and west, but after two winters we have increased the number of sites from 13 to 65.



Glechoma hederacea



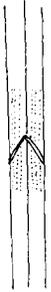
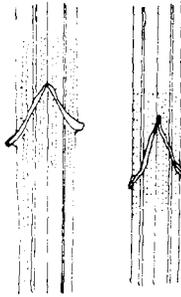
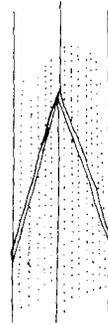
Chrysosplenium alternifolium



C. oppositifolium

Carex strigosa – Thin-spiked Wood-sedge

In flower the upright, unstalked inflorescences are quite diagnostic, but it is the ligule in winter that is distinctive and makes the separation from *C. sylvatica* and young *C. pendula* relatively simple. The ligules of *C. strigosa* are short, with a slight point, free at the edges, and usually, and crucially, strikingly asymmetrical. Those of *C. sylvatica* are short, round and appressed, whereas *C. pendula* are always pointed and elongated to some degree. I find that when they start to grow in spring and flower these differences are somewhat blurred.

*Carex sylvatica**C. strigosa**C. pendula*

C. strigosa, although sometimes abundant, is often found in amazingly discreet colonies, even down to one or two plants. Its leaves, intermediate in size between those of *C. pendula* and *C. sylvatica*, have a more yellowish-green tinge, and become brown at the ends. They also lie flat in a flaccid, limp way that is diagnostic but difficult to describe! As with the *Chrysosplenium* intensive botanising, mainly in the winter, has increased the known post 1980 sites from 4 to 106!! Yawns from all my friends, but both species grow in super habitats and have added greatly to our Sites of Nature Conservation Interest register.

I am very grateful to Robin Walls for the drawings with *Chrysosplenium alternifolium*, and to my wife for those with *Carex strigosa*. The article is based on two notes which appeared in Recording Dorset, the yearly publication of the Dorset Environmental Records Centre.

DAVID PEARMAN, The Old Rectory, Frome St Quinton, DORCHESTER, Dorset DT2 0HF

PLANT RECORDS; GRID REFERENCES

There has been some uncertainty about the degree of precision to be given in records of scarce taxa published in Plant Records in *Watsonia*. Members are asked to note that it is the responsibility of the person submitting the record to Chris Preston at Monks Wood to state whether a four figure or six figure reference should be published, regardless of how precisely the record may have been localised on the Individual Record Card.

DAVID J. McCOSH, Baconsthorpe Old Rectory, HOLT, Norfolk NR25 6LU

ORCHID POLLINATION IN PEMBROKESHIRE

I have devoted many hours, over many years, to observing the pollination of orchids – or rather the lack of it, and the following account will hopefully inspire some members to report their observations or at least give me some useful references. Compared with the frequent visits of insects to certain flowers, such as those of *Salix* spp., *Rubus* spp., *Lotus corniculatus* and above all – the popular *Anthyllis vulneraria* (kidney vetch), the sophisticated and highly evolved orchids appear to attract little or no attention, which I find quite extraordinary.

Platanthera chlorantha and *P. bifolia* (butterfly orchids)

In the 1970s I spent many hours, on blissful summer nights, in Ufton Wood in Warwickshire, trying to observe their pollination. Being on Lias clay the wood was rich in orchids, and their powerful after-dark scent rivalled that of honeysuckle, but I saw no visits and indeed on some occasions saw no moths, for which the flowers are said to be adapted, being white, strongly scented and with long spurs.

Dactylorhiza maculata (heath-spotted orchid)

In sheer numbers this orchid must be the most abundant in Pembrokeshire and no doubt in other damp, acid, maritime heaths along the Atlantic coast of the British Isles. One would have expected to see the odd insect visit, even without making any effort, over a period of 30 years, but I never have!

Dactylorhiza praetermissa (southern marsh orchid – probably)

For three Junes in succession I have lain about St David's golf-course, in Pembrokeshire, hoping to see an insect visit this 600-strong colony and once saw a bumble bee visit one flower (not even a whole inflorescence) so briefly that I was unable to identify it. Small reward for the potential embarrassment of having to explain my presence to bewildered golfers! A visit later in the year established, however, that 20% of the individual flowers (not plants) had in fact produced capsules: counting the seeds – or even estimating them, was beyond my patience as they are minute and shaped like minute bits of twisted paper. Although some plants had produced no capsules, most had one or more. This compares most unfavourably with the pollination studies by Hazledon & co.¹ of the related *D. purpurella* and *D. fuchsii*, though clearly in my case rare insect visits had occurred. Either they were more patient or more fortunate, for the *D. purpurella* they studied flowered in July when there are more insects about. Of course my sense of time may be at fault: from the standpoint of their 'customers' orchids should perhaps be viewed as antique shops – not supermarkets.

Anacamptis pyramidalis (pyramidal orchid)

A few specimens of this orchid grow around St David's golf-links in Pembrokeshire in an atypical calcareous site for Pembrokeshire (an old warren rich in shell-sand). But this is the only orchid I have ever observed being visited, by large skippers (*Ochlodes venatus*) and particularly by six-spot burnet moths (*Zygaena filipendulae*). This was observed in early July, six-spot burnets being on the wing and *Anacamptis* happening to flower here at the same time. In fact one or two moths, with 6 to 8 pairs of pollinia attached to their probosces, appeared to be 'concerned' about this extra attachment.

Discouraged by these generally negative results I visited the Lot region of southern France, near Labastide Murat, in 1994, believing that I would witness burnet moth and perhaps bee and butterfly visits on a grand scale, as there is so much more of everything there, including sun! What I had not bargained for, was the wealth of other more popular flowers in the *Anacamptis* colonies, such as *Hippocrepis comosa* (horseshoe vetch), *Trifolium pratense* (red clover) and *Knautia arvensis* (field scabious), so that burnet moths showed no interest in the orchids. Perched on the orchids, but not feeding from them, I saw two marbled white butterflies, a glanville fritillary, a meadow-brown and a pale clouded yellow, and this greater popularity of other flowers was true for all *Anacamptis* sites.

Himantoglossum hircinum (lizard orchid). This rare orchid – rare in the U.K. that is, grew abundantly in southern France, thus giving me the opportunity to study its amazing inflorescence and its pollination. Its extraordinary elongated, twisted labellum, its smell of goats and its size – some were 3½ ft. high, must all have evolved for some purpose, but for what purpose? I looked at thousands, but never saw one insect feeding from them, and this included one night-time visit (at great personal sacrifice, as I missed another haute cuisine dinner with accompanying wines). Altogether on the inflorescence I saw one ‘roosting’ marbled white, a few spiders and some micro moths, all using the inflorescence merely as perches. I wonder if the labella are meant to appeal to elongated insects such as sawflies, ichneumon flies or even longicorn beetles. Otherwise I cannot fathom their purpose

As far as I can judge the literature on the pollination of orchids is no better² It records few actual observations, but a host of speculations. Why have my efforts been so unrewarding, and can anyone help?

References

- 1 Hazledon, Naislett and Richards. 1991. Differential pollination efficiency within a hybrid swarm between *Dactylorhiza purpurella* and *D. fuchsii*. *Watsonia* **18**: 391-393.
- 2 Davies, Paul and Jenne and Huxley, A. (1983). *Wild Orchids of Britain and Europe*. Chatto and Windus.

GORDON KNIGHT, 12 Ffordd y Felin, Trefin, HAVERFORDWEST, Dyfed SA62 5AX

MISTLETOE SURVEY

I put a notice in our village magazine asking people to phone me if they had mistletoe hidden away in their back gardens. Within 3 days I'd had 10 phone calls and seen mistletoe on 8 different host species. Survey participants may care to copy this idea.

JOHN OUNSTED, Apple Tree Cottage, Woodgreen Common, FORDINGBRIDGE SP6 2BD

GROWING MISTLETOE

With the beginning of the Mistletoe hunting season, I rang the finder of the only Manx plants known to grow on anything except apples. Yes, as far as he knew, the several massive bunches of leaves were still flourishing on their Hawthorn, *Crataegus monogyna*. He would check when he next saw the landowner. Yes, it was true that he had recently made successful plantings on his apple trees in a village where the plant had been reported from several other gardens since about 1920. This is in a drier part of the Island. Since our enquiries may spur people into asking how to grow Mistletoe, I thought his instructions might be useful:

‘Assuming that you do not have a local growing source, **buy** Mistletoe when it comes into the shops before Christmas.

Push the cut stems into damp soil in a cold greenhouse so that drying out is slowed. [In the Isle of Man, plants in the open would probably blow away and there are birds!]

By March the berries will be browned and ripe. **Make a slit in the bark of the underside of an apple-tree branch.**

Stick a berry in the slit.

He had about 10% success with ten plants of varying ages after five years. However, another attempt, in a garden well away from any other colonies in a heavier rainfall district, failed.

P. S. A brief appeal in the local press and on Manx Radio was equally successful – I now have new records from six 10 km squares, in contrast to the three in the original *Atlas*, all on garden apples and five more from the period 1935-55.

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COCHLEARIA MEGALOSPERMA NATURALISED IN BRITAIN

A note in *BSBI News* 67: 56-57 (Sept. 1994), reporting on a naturalised *Cochlearia* at Nottingham, attributed these plants to *C. glastifolia* L. In fact the species involved is *C. megalosperma* (Maire) Vogt.

This taxon was originally described by Maire as a variety of *C. glastifolia* and has recently been raised to specific rank by Vogt in *Mitt. Bot. Staatssamm. München* 23: 199 (1987).

C. megalosperma is a native of S. Spain and differs from *C. glastifolia*, which also occurs in Spain, noticeably by its longer fruiting pedicels (3-4 times as long as the fruit, as opposed to 1½-2 times) and fewer seeds per fruit (6-8, instead of 15-30). *Flora Europaea* 1: 380 (ed. 2) also notes differences in the size of the fruit, style and seed, and seed surface characters.

The identity of other records of *C. glastifolia* as an alien now also needs to be checked.

I am most grateful to Dr John Akeroyd, who co-authored the account of *Cochlearia* for *FE* ed. 2 and who also revised most of volume one, for kindly bringing *C. megalosperma* to my attention and suggesting that the Nottingham population falls within its circumscription.

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REDISCOVERY OF A COLONY OF SAXIFRAGA HIRCULUS IN NE SCOTLAND: a saga of problems arising from secrecy

In August 1994 a colony of *Saxifraga hirculus*, the yellow Marsh Saxifrage, was relocated in the western uplands of North Aberdeenshire, v.c. 93. Kathy Fallowfield, using a 6-figure grid reference in her recently received record cards for v.c. 92, made the find accompanied by John Edelsten and Eddie Bruce.

The colony was unknown to myself, the recorder for v.c. 93, and to the present staff of Scottish Natural Heritage, not being in the files for the SSSI containing the site.

However we did know that a colony in the Cabrach area had been found in 1965 by Alan Souter, and thereafter he and Mary McC. Webster had checked it in most years. By the time I became recorder for v.c. 93 in 1977, Alan had died and Mary was less active; I never got to know from her the exact location of this colony despite some clues in letters.

There are lessons in this story for ensuring rare species are properly protected, and also a further puzzle about the site Alan discovered.

With a rare and attractive plant in a fragile environment easily damaged by trampling, it is understandable that botanists should want to minimise the number of visitors and ensure that only the devoted succeed. But giving only a 10 km square and an altitude to BRC, and not the details to the v.c. recorder and those looking after SSSIs, risks the required knowledge not being available when threats arise. People die, people move away, fires occur, records get lost, gaps in records may be filled inaccurately.

In recent years it seemed to those trying to protect *Saxifraga hirculus* that the four colonies extant in 1968-69 within a 20 km radius of Cabrach had been reduced to two, both being ones I had

discovered (Welch 1970). And with much ground in this district being afforested, considerable effort has been spent in trying to relocate the Souter-Webster colony. Fortunately progress has now been made, and John Edelsten had the good sense to report the find to me.

I deduce that Mary McC. Webster at some stage gave at least one staff member of NCC the grid reference of the site refound this year, perhaps with an obligation to secrecy, Peter Marren put the reference into his cards for v.c. 92 instead of the SSSI files, and never saw the colony. In due course Kathy Fallowfield inherited the cards but was unaware of the significance of the grid reference.

I remain unsure of the site of Alan Souter's 1965 colony. When Derek Ratcliffe commissioned me to search for *Saxifraga hirculus* in Cabrach, he said that the Souter's colony altitude was 1100 ft. When I reported my own discoveries later in 1968 to BRC, Frank Perring said Alan's colony was further west and confirmed 1100 ft. But now due to the efforts of Chris Preston and Lynne Farrell in digging out BRC record cards, it is established that the altitude originally reported was 1280-1300 ft; in subsequent transcription within BRC a 4-figure 1 km square grid reference appeared probably based on the position of Cabrach church *in lieu* of a proper location, and this was misinterpreted. A later BRC card gives a different 4-figure grid reference but no altitude or recorder; this 1 km square is where, on the basis of other information, I concentrated my search for the Souter colony. However, the square of the colony now rediscovered is different again.

So could it be that Mary McC. Webster found an extra colony, and that this is the relocated one rather than Alan Souter's original? If anyone has facts or memories which could help sort out this puzzle and perhaps turn up another site for *Saxifraga hirculus* I would be very grateful to hear from them.

Reference

Welch, D. (1970). *Saxifraga hirculus* L. in north-east Scotland. *Trans. Bot. Soc. Edinb.* **41**: 27-30.

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PETAL SIZES IN *CARDAMINE HIRSUTA*

Stace (1994) in his note on *Cardamine corymbosa* Hook. f. in Leicestershire suggests that my measurements of petal width of *Cardamine hirsuta* in the *Crucifer Handbook* (Rich 1991) 'must represent an extreme and rare upper limit'; this I dispute.

All my descriptions in the *Crucifer Handbook* I personally drew up from scratch. The measurements are largely population samples from material found in the wild, and wherever I could I sampled material in a range of habitats from widely scattered sites throughout Britain and Ireland. I quoted the typical variation I saw and measured (and I did an awful lot of measuring) and if I considered measurements to be extremes I quoted them in brackets. For a common species such as *Cardamine hirsuta*, the petal width measurements quoted are typical of the variation in Britain as a whole and in many different habitats; they are not extremes. What does surprise me is that such an eminent taxonomist as Clive Stace should base his judgement of what is typical on one population in his garden.

The broader judgement of what is typical depends on how well you know the plants. I appreciate that when writing a flora covering the whole of the British Isles it is not possible to sample in the same detail as I did for the Handbook covering one family, and that the variation observed depends on the amount of work done. A comparison of *Cardamine* petal lengths given in Stace's (1991) *New Flora* and my *Crucifer Handbook* shows this clearly; in all cases more variation is noted in my *Crucifer Handbook* than in the *New Flora*. This not only reflects the amount of work done, but also the way variation was researched; Stace (1991) compiled his descriptions from the literature and checked them for errors against specimens.

Similarly, I also stand by my description of the petals as unclawed in *Cardamine hirsuta* (c.f. my Figure 6). Contrary to what Stace (1994) states, I also did not include a description of *Cardamine corymbosa* let alone the claws on the petals in my Handbook.

Stace's 'diagnostic' measurements may work at Cringlee, but they should not be relied on to work elsewhere.

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 Stace, C.A. (1991). *New Flora of the British Isles*. Cambridge University Press, Cambridge.
 Stace, C.A. (1994). *Cardamine corymbosa* in Leicestershire. *BSBI News* 67: 53-54.

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IRISH LOUSEWORT (*PEDICULARIS SYLVATICA* subsp. *HIBERNICA*) NEW TO ENGLAND

During a holiday at Keswick in June 1994 I decided to visit Butterburn Flow to look for *Carex magellanica* (Tall Bog-sedge). Butterburn Flow is a SSSI of some 409 hectares on the Cumbria/Northumberland border and is the most important blanket mire in England.

It was while I was searching for the sedge that I came across some plants of *Pedicularis sylvatica* (Lousewort). I had already read Tim Rich's note of this species in *Watsonia* 20(1), 1994 and bearing in mind his request for other British records of subsp. *hibernica* I decided to look more closely at some of these plants.

To my surprise I very soon found a plant which had a hairy calyx and after a short time had found another. The remainder of the plants I examined were completely glabrous. Hairy and hairless specimens were growing side by side.

I would agree with Tim that plants with hairy calyces could be widespread in north-west England and could easily have been overlooked in the past. How many of us have ever bothered to stoop down and examine the calyx of *Pedicularis sylvatica*? I certainly never have and wouldn't have done on this occasion if I had not previously read the note in *Watsonia*. If it had not been for this report the plants on Butterburn Flow may have remained undetected for a very long time. I think this is probably the first English record for this subspecies, all previous records being for Ireland, Scotland and Wales.

One month prior to my visit to the Lake District I had attended the BSBI Field Meeting on the Lizard, Cornwall. I examined a good number of plants of *P. sylvatica* on this occasion but all had glabrous calyces.

In addition to the Scottish records of Irish Lousewort noted in Rich (1994), Mrs C. W. Murray has kindly pointed out to Tim Rich that subsp. *hibernica* is quite widespread on Skye, and there are now more records in addition to the 10 km squares noted in Murray, Birks & Murray (1980).

References

- Murray, C.W., Birks, H.J.B & Murray, R.M. (1980). *The botanist in Skye*. 2nd edition. BSBI, London.
 Rich, T.C.G. (1994). *Pedicularis sylvatica* L. subsp. *hibernica* D.A. Webb (Scrophulariaceae) new to Wales. *Watsonia* 20: 70-71.

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NETTLES IV
28 miles (46 km) of Stinging Nettles

The table (below) shows the prevalence of stinging nettles (*Urtica dioica*) along **all routes** (including the River Kennet) in July 1994 within the 9 × 1 km squares centred on Lockeridge, west of Marlborough (SU/145675). Counts were made per 100 metres, and applied to either (or both) route side(s), up to 5 metres deep beyond the edges, or in the case of the A4 road, the north edge and/or south of the cycle path edge.

1000+ stems per 100 metres indicate either (semi)-interrupted nettle bands 2+ metres thick, or adjacent nettlebeds. The numbers within the table show the affected lengths in kilometres.

It is strongly emphasised that the table does **not** include most field and ditchside nettle bands, nor the large nettlebeds on agricultural, waste and wet woodland habitats, nor vast aggregations of nettles on National Trust land (especially Piggledene), nor the occasional concentrations of nettles on chalk downland.

Wayside nettles do not appear in the following 4 habitats:

- 1) Deep-shaded paths under dense Beech (*Fagus sylvatica*) (such as the Bluebell expanses), *Thuja* or Spruce plantations in West Woods.
- 2) Some paths **across** (in sharp contrast to **alongside**) fields, **in the absence** of sarsens, fences, ditches, dumps, wire or obstructions where nettle rhizomes and stolons abound.
- 3) Sections of intensively mown, strimmed, weeded and/or weed-killed verges.
- 4) Undisturbed mixed woodland with a ground cover of Bracken, Bramble, *Dryopteris* spp., or large woodland grasses, as alongside the ancient Wansdyke West Woods path.

The superabundance of nettles may indicate 'Nettle Blooms' as the long-term land equivalent of algal blooms due to phosphate excess (Mike Grant, *Brit. Wildlife* 5(6): 407, Aug. 1994). Many routesides are monopolised by nettles to the virtual exclusion of other wayside flowering plants from midsummer onwards.

However an alternative (or additional) explanation may be the (recently evolved?) strains of stinging nettle with capacities for extremely vigorous stolon and rhizome formation. Riverside nettles in particular can also be much bigger than the 2-4(5) ft limits in the floras; I have kept a 3.38 metre (11ft 3½ inch) specimen from Bodenham in S. Wiltshire

Counted, per 100 metres for entire lengths	Nettle-free stretches	1 nettle or seedlings	2-10 plants	up to 100 plants	101-1000 stems	1000+ stems	All nettled lengths	Total lengths
River Kennet banksides	0	0	0.5	0.75	1.25	2.25	4.75	4.75
A4. fringes to verges	0	0	0	0	2.0	1.25	3.25	3.25
Minor roads. fringes to verges	0.25	0.5	0.9	1.25	6.0	3.10	11.75	12.0
Tracksides, rights of way, (villages, farmland, N. Trust)	1.25	0.35	0.5	1.5	3.85	6.40	12.60	13.85
Tracksides, rights of way, (West Woods)	5.75	4.25	3.0	2.0	1.75	2.25	13.25	19.0
All routes	7.75	5.10	4.90	5.5	14.85	15.25	45.60	52.85

Prevalence of stinging nettles along **all routes** within 9 × 1 km squares centred on Lockeridge, W of Marlborough (SU/145675)

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WATSONIAN VICE-COUNTIES IN LONDON

During the BSBI Exhibition on November 26th, 1994, it was conveyed, not for the first time, that my repeated references to London Boroughs (L.B.'s) may be unclear to a number of *News* readers. I am aware of this likelihood and I am prepared to explain my reasons for continuing to do so.

I am very much an advocate of the Watsonian recording system. I respect both its practicality and the widespread affection which its traditional use has earned over many decades. Within Greater London, however, our old portions of Kent, Surrey, Middlesex and Essex have been replaced by smaller, locally administered regions which, in general, obscure the original county boundaries. Nowadays there is only one practical way of navigating oneself through built-up land for botanising (or for any) purposes, that is armed with the London A-Z Atlas which maps our roads, open spaces, metropolitan boroughs and postal areas. Of course I also possess Ordnance Survey maps where conventional county boundaries are marked clearly in outer rural districts, but these boundaries likewise disappear in the massive urban sprawl, so again I cannot trace them back to within miles of the Thames. To be sure, I have long been dissatisfied over this, and I have also long been aware that other people in the past have somehow fared better. But I am not willing to give myself a bad time either by feeling guilty or by exhausting disproportionate hours and resources searching goodness knows where for precise correlation. My desire is to present BSBI with quality data and with quality writing. And my habit is to succeed.

Does anyone feel strongly enough to support me with a London A-Z Atlas marked with vice-county boundaries which clarify where every single city street belongs? If so, your gift will be gratefully acknowledged and I shall publish from it happily ever after!

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NOTES AND ARTICLES

EARLY MEMORIES OF G.C. DRUCE

Many hard things were said about George Claridge Druce during his lifetime and after his death hard things were written about his botanical work. I would like to say a little about a wholly admirable side of his character – his willingness to take time and trouble helping beginners in field botany. In *The Botanists*, David Allen says he was endlessly patient with them. He even took trouble to encourage the botanical interests of a small boy of eight who was showing signs of becoming a dedicated botanist – I know, because I was the small boy, and I owe much to his help.

In the spring of 1916 my parents, who then lived in Cardiff, rented a house by the seaside at Porthcawl for a few weeks. Behind the house the sand dunes stretched away to Newton Nottage and Merthyr Mawr and it was a splendid place for a young botanist to explore. When my brother Owain came to Porthcawl for the school holidays he collected butterflies and moths and looked for caterpillars. I was fascinated with the plants, especially the tiny ones such as *Whitlowgrass* and *Vicia lathyroides* which grew in the hollows between the dunes. Some of them I pressed and stuck in a book, naming them as far as I could from an illustrated book on wild flowers belonging to one of my brothers.

My interest in plants lasted through the summer after we had returned to Cardiff and in the autumn my father, who was keen to encourage it, gave me a copy of Bentham and Hooker's *British Flora* and the companion volume of illustrations. He also asked Miss Eleanor Vachell, an excellent botanist who in later years became well known in the Botanical Exchange Club (BEC), to help me. Miss Vachell taught me many useful things, how to press and label my specimens properly and how to mount them (on cartridge paper 17½ × 11½ inches exactly!) – and much about the plants themselves.

Occasionally on fine evenings we drove in her pony and trap to see interesting species. But above all she told that I must make contact with Mr Druce.

Druce duly enrolled me in the BEC. In the *Report* for 1919 (p. 682) he refers to me as 'our youngest member' and quotes something I had said in a letter about a plant of *Allium schoenoprasum* which I had collected at the Lizard and grown in my garden at Cardiff. I did not actually meet Druce until a few years later, but a correspondence began which continued until I went to Cambridge in 1927. A letter from Druce was always a high spot in the week. Sometimes a fat letter arrived containing a specimen for my collection. I remember receiving from him *Gentiana verna* and *Koeleria vallesiana*.

I have preserved only ten of these letters. What is probably the earliest of them is dated 1920, but Druce was notorious for dating his letters illegibly or not at all. Young as I was, he always wrote to me as one botanist to another. They were generally addressed to 'My dear Paul' but later on to 'Dear Richards'. For some while I wrote to him as 'Dear Sir', but one of my brothers noticed that his last letter was addressed to 'My own Paul' and suggested that something less formal would be better.

In the summer of 1920 my father was moved to London and we had a very wet summer holiday near Towyn in North Wales. I had already been introduced to mosses by A.E. Wade and Druce suggested that I should go to see D.A. Jones at Harlech. I did so and this diverted my interests even more strongly to bryology.

I first met Druce the following year. In the summer half-term holiday my parents and I stayed in the house of a friend at Kingswood Common in the Oxfordshire Chilterns. Dr Druce kindly wrote that he would like to meet us and would come over if the weather was fine. It rained in the morning, but improved in the afternoon. I well remember my excitement when at last I saw Druce's antique car coming up the hill. In the woods Druce showed me *Pyrola minor* and other plants new to me.

After that I met him on only two or three occasions though our correspondence continued. The last time I saw him was in 1930 or 1931 when he was staying with Dr and Mrs Gilbert-Carter in Cambridge.

I know that I was not the only young botanist to whom Druce gave help. In retrospect today we find much to criticise in Druce's botanical activities as well as in some of his personal characteristics. But it should be realised that at a time when there was a great gulf between professional and amateur botany and the large number of wildlife trusts and the like which there are today did not exist, he did much valuable work in stimulating British field botany and keeping it alive.

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'OFFICIAL' ENGLISH NAMES

I must confess to an extreme dislike of having to use 'official English names' – after all why were unambiguous Latin names invented? – and it leaves no place for local names. It is not a convention I will be following unless I have to – obviously dreamt up by a bureaucrat!

Gardeners, and the public at large, let the words *Chrysanthemum*, *Mesembryanthemum*, *Nasturtium* & *Delphinium* roll off their tongues without flinching and you cannot get more complex Latin names than these, so why should botanists always have to give English names as well?

Similarly, using upper case for the initial letters of English names annoys me – when you read books the words 'buttercup' or 'robin', for example, never begin with capitals. The excessive use of capitals is also visually intrusive (unless you are Teutonic!). The convention of all English names beginning with lower case, except where a proper name, makes the most sense to me.

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DIALECT PLANT-NAMES

This continues from *BSBI News* 67 the list of names collected since January 1992. Further names and any comments would be gratefully received.

Bacon and egg or **bacon and eggs** – *Lotus corniculatus*, bird's foot trefoil. Widespread, being recorded from the Isles of Scilly, Gloucestershire and Northamptonshire.

Bee bread – *Trifolium pratense*, red clover. [Cinderford, Gloucestershire, November 1993].

Bell bind – *Convolvulus arvensis*, lesser bindweed. [East Bergholt, Suffolk, February 1993].

Black jacks – *Plantago lanceolata*, ribwort plantain. 'one circled the stem just below the flower head and shot it off – the winner was the one whose head flew the furthest'. [Cinderford, Gloucestershire, November 1993].

Blegs – *Rubus fruticosus* agg., blackberry. [Addingham Moorside, West Yorkshire, April 1994].

Bobby buttons – *Galium aparine*, goosegrass. [Cinderford, Gloucestershire, November 1993].

Boys' bacca – *Heraclium sphondylium*, hogweed: 'the stem of hogweed was used here as a cigarette substitute gypsies smoked them commonly'. [Barnstaple, Devon, September 1992].

Bread and cheese – *Crataegus* spp., hawthorn, young leaves: 1930s, Heston, Middlesex, 'young hawthorn shoots were nipped off and eaten and known as bread and cheese'. [St Ervan, Cornwall, February 1992]. Widespread, being recorded from Avon, Bedfordshire, Cardiganshire, Devon, Dorset, Hampshire, Humberside, Kent, Northumberland, Oxfordshire, Staffordshire, Warwickshire, Antrim and Tipperary, etc., etc.

Thanks to Anne Andrews, M.P. Baker, Trevor Beer, Maureen Close, Gina Cooper, Eileen M. Elder, Natalie French, Bill Leavey, J. Maisley, Kate Mason, Elsie Olivey, Julia Ottery, K. Palmer, Rosemary Parslow, James Partridge, Denise Purcell and Evelyn Sewell for their contributions.

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HYPHENS AND ALL THAT

The letter from M.E. Souchier in *BSBI News* 67 was most interesting and logical. The use of hyphens seems completely to confuse many people, though no more perhaps than some other conventions of grammar and printing. Naturalists are generally well versed in the presentation of botanical and zoological nomenclature where the use of full stops, commas, brackets and equals signs follow the approved rules.

But as Mr Souchier says, the humble hyphen is much maligned (no hyphen there as much maligned is the predicate and not attributive) and he cites numbers of clear examples of correct usage. I admit to not having a copy of *ENOWF*, which I must rectify soonest (service slang). When I am editing, especially a botanical paper, I either leave the English names exactly as the author has written them, looking for consistency throughout the paper, or I compare them with my botanical books and the latest *Concise Oxford Dictionary*. Which is preferable, 'birdsfoot trefoil' (McClintock and Fitter), or 'bird's-foot trefoil' (*COD*)? I prefer the former, though no doubt the latter is strictly more correct.

Mr Souchier also refers to 'tea pot, tea-pot and teapot', whose evolution is exactly as *Fowler* stated many, many years ago. Then why do ornithologists currently say 'woodpigeon', but 'turtle dove'? The *COD* gives 'turtle-dove' but 'woodpigeon'! Languages are continually evolving, rules change over the years, and editors come and go. The important thing is consistency, unambiguity and logic, for, as Mr Souchier rightly says, if we twitch too much a lot of valuable time will be lost.

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SCARCE PLANTS IN BRITAIN

When the BSBI first considered producing a scarce plant atlas. I was happy, as a v.c. recorder, to undertake the work involved in updating the list of nationally scarce plant species in my county.

David Pearman, in his recent note in *BSBI News* 67 commented on the number of volunteers, v.c. recorders and authors without whose help the Nationally Scarce Plant Atlas would not have been possible. Virtually all the data used has been gleaned from v.c. recorders, all unpaid, who have given their time voluntarily.

The book is now, it seems, being marketed aggressively in the commercial field, for instance to environmental consultants and other businesses.

I wonder if other BSBI members feel that there is something of a mismatch here between the use of many hundreds of hours free and voluntary service by BSBI members and the hard selling of the resultant publication in the open market place. I would suggest that, if the expertise of recorders and other unpaid BSBI members is to be used for profit-making publications, then it might be appropriate to remunerate the contributors with a free copy of the publication to which they have given their services. Perhaps this should apply to the forthcoming *Atlas 2000*.

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'BLUEBELLS'?

I am trying to find out the true history of the common name in SCOTLAND for *Hyacinthoides non-scripta* (formerly *Endymion* or *Scilla non-scripta* still so given in some books).

Showing the flower or its picture to various Scots in different parts of the country it is almost always called 'bluebell'.

Most books declare 'wild hyacinth' as the name for this plant in Scotland. I have not yet found anyone who calls the plant this who has learned the name 'naturally' from parents or countrymen. Some have volunteered 'wild hyacinth' having found this name in a flora but admit they formerly called the plant 'bluebell'.

A further confusion is added when post cards of the plant are sold by the Scottish National Trust and Scottish Wildlife Trust identified only as 'bluebells'.

I learned 'wild hyacinth' from my parents who originated from the Perth-Angus area and whose forebears had lived there for several generations. I wonder now if they had read 'wild hyacinth' as a Scottish name for the plant and determined that I should know the plant by that name as a Scot.

Is 'wild hyacinth' then one of these all too commonly unquestioned fanciful perpetuations? If it is, who set the hare running and when? Grigson's otherwise comprehensive treatise on local plant lore, *The Englishman's Flora* is no help here.

To add confusion *Campanula rotundifolia* is also widely called a 'bluebell' and an illustration of this plant graces boxes of Bryant & Mays *Scottish Bluebell Matches*. Books give 'Scotch bluebell', 'harebell' or '... bluebell in Scotland' for this plant. I am also reminded of Harry Lauder's song 'Mary my Scotch Bluebell'.

I would be most interested to know if anyone has any knowledge of when the name 'wild hyacinth' fell out of use in Scotland or if it was ever really used at all. All correspondence will be acknowledged.

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MINDFUL OF THE PLANET

Dusk deepened over the Bayswater Road. Chandeliers glowed soothingly over the lounge carpet. Her voice whispered, 'I expect this is an edge for you.'

By then my exhibition was ready and my address prepared. I sat relaxed, awaiting my cue. In fifteen years, I had discovered ten plants new to science, and the full significance of the three most recent ones would soon stand revealed to an audience as remote from botanical circles as might be imagined. May I introduce you to the Columbia Hotel? Welcome! During the last two of those years, this gracious establishment has become an important social, educational and self-developmental sanctuary. It is a venue where people regularly gather in pursuit of such humanitarian and planetary issues as I can identify with, contribute to and derive enjoyment from. And was there a real 'edge' for me ... a personal challenge ... implicit in the sharing about to take place?

Before all else, I considered the automatic belief of 'remoteness'. It was false! No logical reason exists why the passions of botany on one side should be considered separate from the passions of humanity on the other. Nor is such divorce possible, not even in the most esoteric company. With plants and people alike, we are dealing with basic biological survival ... with infinite beauty ... with endless fascination ... with spiritual revitalisation ... and with material for unlimited communication through every conceivable mood. There is yet another perspective. Feedback. As we behave towards the world, so it shows, through vegetation changes, what we have done to it. As we behave towards other people, so they show, through words and body language, what we have done to them. Messages are ceaselessly returning to us. We interpret plant messages. We interpret human messages. We respond by choosing what to do next. Moreover our behaviour, personal and universal alike, is initiated by our minds. Positive, proactive minds will create positive, proactive relationships with ourselves ... with others ... with the environment ... with the planet at large. 'Mindful of the Planet' literally means minds full of the planet. In the BSBI we express love for our biosphere by taking care of our plants. At the Columbia we express love for our biosphere by taking care of our minds. Both involve learning processes. Neither one and no-one is 'remote'. A continuum links all.

This expanding insight offers a valuable framework for selecting private life-habits whereby we may strive towards re-creating these relationships as we want them to be. I illustrated my talk with certain plants which indicate, in particularly dramatic ways, how our activities are already changing the face of the world. Alien species from warmer climes are increasingly colonising southern Britain in response to increased human travel, increased earth displacement and increased global temperatures. New to science hybrids are more frequently arising on urban sites because, by accident or design, we are bringing within cross-pollinating range related taxa which previously only grew continents apart. Indigenous plant communities, rendered irreplaceably complex by the evolutionary refinements of millenia, are being bulldozed into cosmopolitan replicas under benevolent titles like 'nature reserve' or 'wildlife garden' whose different contents public admirers are ill-equipped to recognise. These, without judgements attached, comprise some of our relationships with ourselves, with each other, with the planet. Our scenery around us reflects our minds within us. As we believe, so we act. As we act, so we create. Our creations yield feedback. Our minds interpret that feedback. We choose what to do next. We ... we ... become infinitely, inescapably, individually responsible.

If this model be held as both reasonable and sustainable, the whole issue of plant conservation ... of planetary conservation ... finds itself sharply re-defined. Before I was conscious how each step operated in the continuum, I attended, in January 1993, a forum of North London environmental groups, each dedicated to furthering a specific local cause. After I grasped the poignancy of those steps, I attended, in October 1994, a second forum of closely similar content and purpose. The latter occasion proved a staggering contrast! Suddenly I knew why I was enrolled into some speakers' arguments and distanced by others. Suddenly I understood why some expositions invited success and why others invited failure. Suddenly I observed not just sounds and gestures but the vast mental wombs which had given them birth. Soberly, yet with serenity and also some sadness, I realised clearer than ever before why I had long ago chosen the role of independent ecological consultant instead of accepting affiliation with single crusades. Sensitively, I acknowledge gratitude for twenty

months of Life Training participation which now enable me to support the conservation movement more authoritatively overall. And as my participation lives on, so, too, will grow conscience, experience and eloquence. It is a worthy vocation.

Now historically, I reflect back to those hectic, heady days of Walthamstow Marshes protection (1979-1985), and re-savour the stark horror of **not** comprehending, at that period, how eminent nature-lovers could genuinely hold tragically counter-productive opinion and advice to be in our best interest ... or even in their own. Now, frighteningly, I visualise greater environmental dangers being threatened by the resentful conservationist than by the ignorant developer. Resentment, the most diabolical enemy of all, may assume incredibly insidious and subtle guises, as the mind, through chronic discomfort, corrodes first its owner, then other people, then finally everyone's planet ... inexorably back to the continuum. Resentments can spawn bitter jealousies, divisive suspicions, impersonal politics, cruel legislations, militant action groups, feminism, masculinism, every possible variety of 'us versus them'. And it doesn't matter how moral, or justified, or powerful, or superior, or divine a resentment appears to make us. It spells doom, in chain reaction, right down the line.

It was no coincidence, therefore, that my botanical exhibition and address at the Columbia Hotel was scheduled to conclude that specific part of a six-week course which dealt with the healing of resentments! Indeed I had requested precisely that section of the programme.

For it is feasible, even magnificent, to campaign for improvements **without** resentments, to work towards a more inheritable world through example, not through battle. I report the event here because I want the BSBI also to appreciate how dynamically, how rewardingly, this subject can be presented to sincere people outside our immediate readership. I recommend it because I've done it.

And was it an 'edge' for me? A precipice? A yawning chasm into unfathomable depths of panic? Well, it did turn out distinctly more than exciting! I'd go as far as to claim that in my thirty-five-plus years of serious botanical study, this opportunity to convey the mind-over-planet message to an assembly of kind-hearted lay students inspired one of my finest hours.

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WIDESPREAD DEFOLIATION OF YOUNG TREES BY THE COMMON LEAF WEEVIL

In early May 1994, 47 species of broad-leaved tree (56 varieties and subspecies) and 6 hybrids in one hectare of pasture field west of Marlborough were attacked by the Common Leaf Weevil, *Phyllobius pyri* (see table, p. 25). A touch to some of the trees caused a rain of falling weevils. I was impressed by the enormous range of vulnerable tree families, for even leathery old Eucalyptus leaves were being avidly eaten over 8 days, despite the supposedly lethal Australian cocktail of toxic terpenes, tannins and essential oils. Puzzlingly, shrubs, herbaceous species and trimmed hedgerow trees were wholly untouched, yet 4 specimen uncut hedgerow Wych Elms (*Ulmus glabra*) were all attacked.

Phyllobius pyri, *P. argentatus* and *P. viridocollis* (Curculionidae) are forestry pests, damage coding XXX - 'Important - causing significant loss of increment or value'. The first two species generally attack conifers as well as broadleaves, and are also separately listed as amongst the most important damagers of birches (*Betula* sp.) (Bevan 1987). The soil-inhabiting *Phyllobius* larvae 'feed on a wide range of herbaceous and woody species, especially grasses', thereby making trees planted on pasture particularly vulnerable. In April and May 1994 there were reports of severe defoliation of young trees due to *P. pyri* by the River Thames and in the Cotswolds.

P. pyri is 5-8 mm long with a variable coverage of usually green-bronze iridescent scales giving an opalescent sheen. Even allowing for this, and for scales rubbing off with age, there seemed to be 10 colour variants in this one Kennet Valley field. In order of frequency these were: (1) Bronze, (2) Bright green (mostly female), (3) Dull chocolate-brown/black, (4) Dull light brown, (5) Dull sandy-buff, (6) Bicoloured, black anteriorly sharply divided from white posterior 2/3 of abdomen, (7)

Bright golden-yellow, (8) Bright pink (all male), (9) Bright red (all male), (10) Prussian blue. All were identified as *P. pyri* (see acknowledgements).

In this field the *P. pyri* infestation was at its worst in April and early May. These weevils disappeared in early June, whether as a consequence of ants sometimes observed on the petiolar glands of Gean (*Prunus avium*) and Sargent Cherry (*P. sargentii*), or seasonal intensification of leaf poisons, or in response to a pre-programmed life cycle. Late-leaving trees were therefore not attacked (see table). At the height of infestation, the only effective predators noted were 2 pairs of Great Tits. Silver Limes (*Tilia* sp.) and other trees with tomentose shoots (if early-leaving) suffered the worst. Tomentosity helps defend limes against aphids (Mitchell 1982), but it seemed to help *P. pyri* to manoeuvre at speed, and to hold on comfortably and snugly in sleety spring gales. These weevils did, however, have trouble with lacinate and pinnate leaves (especially *Sorbus commixta*). The Great Tits were easily picking them off as they struggled around the serrate leaflets before they had a chance of dropping into the grass.

5-15 minutes after dropping, the weevils were again racing up the stems to the leading shoots. By chance, some trees had hazel (*Corylus avellana*) stakes which had sprouted leaves. If these hazel shoots were **above** the specimen tree, they acted as a 'lure-crop', to be preferentially defoliated by *P. pyri*. If **below**, they were seldom attacked. No bushy or hedgerow hazels were attacked. Leaves on pendant shoots were eaten at the top of the arch rather than the tip, but if infestation was severe (as with Silver Pendant Lime, *Tilia petiolaris*), the shoot was eaten through causing the death of the peripheral pendant segment. Hawthorn (*Crataegus monogyna*), Field Maple (*Acer campestre*) and Elder (*Sambucus niger*) were not attacked in **this** field by *P. pyri*, but all were either densely shrubby or levelled in the hedgerows. Neither were the shaded agglomerations of Sycamore (*Acer pseudoplatanus*), Hawthorn, Poplar (*Populus* spp.) and Willow (*Salix* spp.) at the field margins touched. However, at least 6 willow and 2 poplar species (see table) in the open were defoliated more severely by *P. pyri* than by other concomitant leaf-eating Chrysomelid beetles of the genus *Phyllodecta*. No trees under 60 cm amongst herbaceous vegetation were attacked by *P. pyri*: these were devastated by slugs and snails instead.

No trees were killed by *P. pyri* but over 2 years attacks on leading shoots reduced some to shrubs, particularly White Poplar (*Populus alba*). The newly planted limes which had suffered defoliation in spring and early summer, 1994, recovered well in August, as did most other tree species. Wilting and die-back in the very dry July was worse for slightly attacked newly-planted trees in full leaf, rather than those which had been severely stripped by *P. pyri* in May!

In summary, the factors favouring defoliation of young trees by *P. pyri* seem to be as follows:

- (1) Season. Spring and early summer vulnerability. Late-leafers are spared.
 - (2) Top, prominent or isolated shoots, of trees mostly between 60 & 400 cm. When the tree becomes shrubby or if it is cut back in hedging, it is left alone.
 - (3) Open pasture. Agglomerations of established or shaded trees were not attacked.
 - (4) Form of leaf and shoot. *P. pyri* copes easily with simple leaves and shoots, especially when tomentose, but is more easily predated by birds when leaves are compound with serrated leaflets.
- In the matter of chemical warfare, *P. pyri* seems to have taken on, and beaten hands-down, a vast range of higher plant species, especially trees.

Acknowledgements

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TABLE

Exotic Trees

Native, or (semi) naturalised trees (Stace 1991)

(Sub) Total defoliation, with cut shoots

<i>Liriodendron tulipifera</i>	<i>Tilia kiusiana</i>	<i>Corylus avellana</i> (compare also below)
<i>Prunus sargentii</i>	<i>T. × moltkei</i> (T)	<i>Populus alba</i> (T)
<i>P. subhirtella</i>	<i>T. oliveri</i> (T)(EL strain)	
<i>Quercus frainetto</i>	<i>T. petiolaris</i> (T)	
<i>Tilia chingiana</i>	<i>T. tomentosa</i> (T)(3 vars.)	

Partial defoliation

<i>Betula nigra</i>	<i>Tilia henryana</i>	<i>Acer platanoides</i>	<i>Tilia cordata</i> (3 vars.)
<i>B. utilis</i>	<i>T. intonsa</i>	<i>Populus nigra</i> subsp. <i>betulifolia</i> (EL)(see also below)	
<i>Cercicoph. japonicum</i>	<i>T. japonica</i>	<i>Prunus avium</i>	<i>Tilia platyphyllos</i> (2 vars.)
<i>Sorbus commixta</i>	<i>T. mongolica</i> (3 vars.)	<i>P. cerasifera</i>	<i>T. × vulgaris</i> (2 vars.)
<i>Tilia × flavescens</i>	<i>T. mongolica</i> hybrid	<i>Salix daphnoides</i>	<i>Ulmus glabra</i>
		<i>S. viminalis</i>	

Slight leaf damage

<i>Davidia involocrata</i>	<i>Tilia × euchlora</i>	<i>Acer negundo</i>	<i>Salix alba</i>
<i>Eucalyptus gunnii</i>	<i>T. maximowicziana</i>	<i>Alnus glutinosa</i>	<i>S. × calodendron</i>
<i>Pyrus calleryana</i>	<i>T. neglecta</i>	<i>Betula pendula</i>	<i>S. fragilis</i>
<i>Tilia americana</i> (2 vars.)	<i>Zelkova carpinifolia</i>	<i>Malus domestica</i>	<i>S. purpurea</i>
<i>T. amurensis</i>	<i>Z. serrata</i>	<i>Pyrus communis</i>	<i>Sorbus torminalis</i>

[Also *Gleditsia triacanthos* (LL), but culprit here probably mainly *Phyllobius argentatus*]

Undamaged trees

<i>Acer forrestii</i> (LL)	<i>Kolreuteria pan.</i> (VLL)	<i>Acer campestre</i> (H)	<i>Fraxinus excelsior</i> (VLL)
<i>Aesculus indica</i> (VLL)	<i>Nothofagus antartica</i>	<i>A. pseudoplatanus</i>	<i>Juglans regia</i> (VLL)
<i>Ailanthus altissima</i> (LL)	<i>N. obliqua</i>	<i>Aesculus hipp.</i> (LL)	<i>Platanus × hispanica</i> (VLL)
<i>Alnus nepalensis</i> (LL)	<i>Paulow. tom.</i> (VLL)(T)	<i>Castanea sativa</i> (LL)	<i>Populus canadensis</i> (LL)
<i>Catalpa bignon.</i> (VLL)	<i>Robinia ps. 'Frisia'</i> (VLL)	<i>Colutea arbor.</i> (LL)	<i>P. nigra bet.</i> (VLL&LL strains)
<i>C. speciosa</i> (VLL)	<i>Tilia oliveri</i> (LL strains)	<i>Corylus avellana</i> (H)	<i>Pterocarya frax.</i> (LL)
<i>Corylus colurna</i>	<i>T. platyphyl.</i> 'Lacinata'	<i>Crataegus mono.</i> (H)	<i>Sambucus nigra</i> (H)
<i>Juglans nigra</i> (VLL)	<i>Fagus sylvatica</i> (LL)		

Spring time damage by the leaf-weevil *Phyllobius pyri* to (mostly) young trees, over nearly 1 hectare (T) = Tomentose shoots; (H) = Hedgerow trees; (EL) = Early leafing strain; (LL) = Late leafer, after 15th May; (VLL) = Very late leafer, after 31st May.

NEWS FROM THE NATURAL HISTORY MUSEUM

During the first nine months of 1994 staff of the Flowering Plant Herbaria dealt with 140 loan requests, and received 1158 visitors. Noteworthy among the loans were two totalling c. 7,000 specimens of British *Rosa* to Tony Primavesi, who with Gordon Graham examined and annotated every sheet!

Accessions include c. 900 specimens, mostly from Cornwall, which were presented by Rose Murphy. As south-west England is rather poorly represented in our collections this donation forms a useful addition and is much appreciated.

We have also received a large number of slides which have been added to our expanded and recurred slide collection.

Two Herbarium Open Days are planned for spring 1995. On Saturday 25 February we will be joined by Len Ellis, the Museum's Curator of Bryophytes, so after an introductory tour in the morning we shall be focusing on mosses and hepatics in the afternoon. On 25 March the introductory session will be followed by a session which will allow participants to follow their own interests. Both Open Days will start at 10.30 a.m.; no charge will be made but people wanting to attend should contact me in advance. All are invited.

ROY VICKERY, Department of Botany, The Natural History Museum, LONDON, SW7 5BD

ANOTHER HERBARIUM FOR SALE

In an earlier number (*BSBI News* 47:32) I drew attention to the advertising for sale by a leading London firm of book dealers of a nineteenth-century local herbarium and deplored the risk of a market developing in this thankfully long-uncommercial field, if anyone were to succumb to the offer. In the event one of our museums did, I am sorry to say.

Perhaps influenced by that success, another bookseller, Henry Bristow of Ringwood, is now advertising in his latest catalogue an eighteenth-century British *hortus siccus*, for which he is asking the absolutely ludicrous sum of £1500. For this the lucky purchaser will receive 58 leaves bearing some 400 specimens, 'a few disintegrated', in contemporary calf-backed marbled boards. Mr Bristow has evidently never laid eyes on an early herbarium before, for the catalogue entry is rounded off – apparently in justification of the price – with the words: 'To a layman it seems miraculous to be able to look at flowers that were growing in the reign of George II.'

There are always people foolish enough to judge the value of an object by the size of the sum asked for it, but in this case the price must be safely beyond the purse of even the most affluent of our museums. The collection, moreover, seems likely to be of negligible interest botanically – except as a source of 'first dates' – for if another of those formed by the same individual is anything to go by, it doubtless consists by and large just of common wild and garden species. Although the man responsible for it, William Paine (fl. 1729–39), gave himself the title 'Botanist', his claim to that seems to have rested merely on the preparation of collections for sale and he was evidently a man of little or no education (thus Dandy on p. 174 of his masterpiece, *The Sloane Herbarium*). Frederick Yorke Brocas, about whom Victorian botanists wrote to one another in invariably patronising or contemptuous terms, was his nineteenth-century equivalent.

Three other flowering-plant collections of Paine's are already known. One is at Wadham College Oxford, a second was destroyed in the wartime bombing of Bristol City Museum, and the third is in the Sloane herbarium in the Natural History Museum. The last of these consists of 200 specimens from the West of England, only a few of them localised. The Bristol collection, made in Somerset in 1732, was more substantial, amounting to 677 specimens in two volumes.

This newly-surfaced fourth collection was made in May 1730 within ten miles of Exeter for an apothecary of that city, William Pitfield. Dr Nita Burnby, the authority on English apothecaries,

informs me that Pitfield completed his apprenticeship in Exeter in 1691 and had apparently either retired or died by 1735, for in that year his son succeeded to his practice. It is tempting to assume that the collection was a present for the son, to assist him in his studies, but Dr Burnby points out that from the dates he looks on the old side for that. Although he is known to have had scholarly leanings in later life featuring in seven book subscription lists between 1747 and 1786, no trace of any Pitfield has been found in any published botanical work.

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Rev. MOYLE ROGERS

I feel I must write in support of the Rev. W. Moyle Rogers. In *BSBI News* 67, an article on page 15 seems to impugn his reputation in two places: '... it seems likely that the Rev. Moyle Rogers misidentified *S. torminalis* ...' and later '... or because the plants were never actually there ...'

The credibility of the Rev. Moyle Rogers is completely sound as any batologist will confirm. He is a major figure in the study of *Rubus* TODAY especially so in Devon, where he lived a long life.

For a man who was capable of disentangling the complicated fabric of the genus *Rubus* to misidentify *Sorbus torminalis* is simply unbelievable. To question his honour is unforgivable.

Pistols at dawn on the A38, Mr Cann!

RAY GOULD, 40 Ferrers Road, St Budeaux, PLYMOUTH

PRONUNCIATION OF VERNACULAR AND SCIENTIFIC NAMES

I was interested in Anthony Galton's note concerning pronunciation of English plant names in *BSBI News* 67: 34. As he points out, pronunciation is a personal matter and can cause great offence and petty squabbles. However, there is an answer to the problem of deciding upon 'correct' pronunciation: turn to a dictionary. This is what one does with any other English word, and plant names are no exception.

Reference to my edition of the *Concise Oxford*, for instance, shows that 'avens', 'cinquefoil', 'gromwell' and 'whorl' should be pronounced as in the 'b)' version given by Mr Galton. Discrepancies between dictionaries are another matter of course...

Of greater confusion to me is the pronunciation of scientific names. Although several books are available with pronunciation guides, they often seem to conflict. Much of the problem lies around anglicised versus classical Latin pronunciation. For example *Centaureum* is usually anglicised to 'sent-or-ium', whereas the classical Latin pronunciation gives us the unwieldy 'kent-ow-ray-um'. Other common discrepancies between English and Latin include long 'i' (rhymes with 'sky' in English, with 'see' in Latin), hard or soft 'c', the diphthong 'ae' (always rhymes with 'sky' in Latin) and the stressed syllable (again 'sent-OR-ium' or 'kent-ow-RAY-um').

As scientific names are supposed to be international, I imagine that speakers of other languages have their own pronunciations relating to their native tongues. It therefore seems inevitable that people will always pronounce scientific names differently. As long as we all know what we're talking about, then *vive la différence!*

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BSBI AND THE YOUNGER MEMBER

Until I read the results of the BSBI questionnaire in the last *News* I was unaware that I was part of such a select group of members: the under-25s! I am not sure why BSBI should have so few members in this age group. Perhaps it is because there are so few young botanists (I don't know any others!) or perhaps it is because BSBI has a rather formal and perhaps daunting image. I for one might be put off attending BSBI meetings due to their (in my perception) rather intimidating facade. (Something which the lighter *BSBI News* articles help to dispel). On a positive note, my own reason for joining was to receive *BSBI News* and *Watsonia*, because I often saw them referred to in the literature and was keen to be kept up to date with botanical matters.

BSBI News itself I have found both readable and interesting (and sometimes entertaining!), and I think, the present layout and style are well chosen and achieve a balance between 'heavy journal' and 'magazine' formats. I certainly know of no other society which gives its members so much information in such a well-presented manner. [The cheque's in the post Mark. Ed.]

If BSBI does wish to increase its younger-aged membership base, I might suggest trying to get some nice people at RSPB, County Wildlife Trusts, Greenpeace, etc., to give the Society a plug in their publications. The RSPB for one, produces a newsletter for young people called '*Wingbeat*'. A few words about the benefits of BSBI membership (especially the smashing *News*!) [make that 2 cheques. Ed.] might draw in a few new members.

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WILD CLARY (*SALVIA VERBENACA*) IN CHURCHYARDS

In the *Sussex Archaeological Collections* (vol. 50 1906) the obituarist of Rev. Dr Frederick Arnold gives an example of the type of fascinating snippet of information with which his subject would regale any intelligent listener he happened to encounter. Arnold referred to the Mediaeval practice of sowing 'Wild English Sage' (*Salvia verbenaca*) on graves in the belief that it conferred immortality, he cited as an authority the 12th century *Schola Salernitana: cur moriatur cui salvia crescit in horto?* – why should he who grows sage in his garden die?

In Arnold's *Flora of Sussex* (1887) several churchyards in v.c. 13 are given as sites for the plant. Of these in the Chichester area (according to my observations) only Stoughton still supports a colony of *S. verbenaca*: it seems to have disappeared from Thorney and Westbourne, and from Priory Park in Chichester itself where the Greyfriars settled in 1269; likewise it no longer grows in Mid Lavant churchyard (St Nicholas), but it does occur in East Lavant (St Mary), a site not mentioned by Arnold – one might have suspected an error in recording, had not Guernonprez (a fine but unsung Sussex naturalist) confirmed the location in an annotated copy of the *Flora*. Another colony of *S. verbenaca* unrecorded by Arnold flourishes in West Wittering churchyard. Further east in West Sussex it remains at Steyning, albeit on the bank **outside** the burial ground of St Andrew's, but not at St Nicholas' Old Shoreham.

But was *S. verbenaca* a deliberate and early introduction into burial grounds? It does not to my knowledge grow on the South Downs very near any of these ancient churches (Steyning and Old Shoreham being the nearest to a concentration of modern records for the chalk slopes), although in former times it may well have done, I concede. Yet it is interesting to note that the first record for the county of Sussex is Mayfield Churchyard in v.c. 14 (1816, Forster: see Wolley-Dod's *Flora of Sussex*), some 14 miles North of the Downs. I find Arnold's theory attractive – especially as the plant is evidently not easy to eradicate once established and seems likely to be able to hang on for centuries in a site (Grigson, *An Englishman's Flora*); and there would also be the possibility in this habitat of buried seed being brought to the surface from time to time to re-establish or reinforce colonies. I would be most interested to receive any other reports of *S. verbenaca* in old churchyards to add to

the circumstantial evidence supporting the contention of Rev. Arnold that here we have a relic of Mediaeval religious belief.

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THE EUPHRASIAN FIELD SOCIETY

With reference to the note on page 70 of *BSBI News* 66, April 1994, BSBI members may like to know that 'The Euphrasian Field Society' really does exist. 'Euphrasians' tend to look to the past rather than the present for inspiration, and are dedicated (as of course their name implies) to return some of the half-forgotten pleasures of an earlier era to the field excursion – notably food, drink, cheerful companionship and an enormous bag at the end of the day (or so they say). I for my sins am their Hon. President, a function largely confined to turning up at society hog-roasts and summer picnics and eating a great deal [sounds like my kind of society. Ed.], and also an annual speech to rouse the Fellows and their guests (a duty not yet consummated).

The list of Hon. Advisors, cooks, vintners, etc., in the Society Prospectus is perfectly genuine. The rather formal style of address assumed by the Fellows in their Communications with brother Societies reflects their admiration for the manners and mannerisms of our forebears.

The heraldic devise on the Society notepaper is of course a combination of *Euphrasia* sp. (possibly *E. nemorosa* to judge from the robust branching habit and acute teeth of the upper leaf axils) and the Pearl-bordered Fritillary, *Clossiana euphrosyne*. I think *Euphrasia* was one of the three Graces, presumably the one with unusually bright eyes. The Society thinks she stood for charm, gaiety, and things of that sort.

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RED DATA BOOK PROJECT

The BSBI has been given small contracts from JNCC (for England and Wales) and from SNH (for Scotland) to gather recent records from the vice-county recorders. Most species are comparatively well-covered, with the notable exception of critical groups, particularly *Alchemilla*, where there are very few records post 1960! But a more interesting, and I hope, bridgeable gap are records from the very richest areas. There is a noticeable lack of recent records from the Lizard, the Snowdonia massif, Teesdale (especially), and the Cairngorms, especially away from the North Corries. The problem seems to be that v.c. recorders have no reason to revisit the most well-known parts of their county, whereas visitors assume that the plants there are well-documented and therefore hesitate to send in records. Would you please search your diaries and send recent (post 1987) records for England and Wales to me, and Scottish records to Dr. Keith Watson, Flat 1/2, 31, Kelvindale Gardens, Kelvindale, Glasgow G20 8DW. Records should consist of at least a 6-figure grid reference, date and location, habitat, and if possible an estimate of the population size. We will, in due course, forward these details to the v.c. recorder.

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ALIENS

ALIEN RECORDS

No authority is given if the taxon is mentioned in Stace's *New Flora of the British Isles* or Clement & Foster's *Alien Plants of the British Isles*. Arrangement follows both books. I would be delighted to receive any alien records for inclusion in future issues. All taxa not in Kent's *List of Vascular Plants of the British Isles* are eligible for inclusion. I would prefer all future records to include a map reference, even if only to a 10 km square. I do not have time to work these out myself.

- Pteris cretica* (Ribbon Fern). Several small plants in sunken area outside an old warehouse, King's Lynn, W. Norfolk (v.c. 28), 1993, R.M. Payne. The area was subsequently treated with herbicide(?) and no trace of the fern could be seen in 1994.
- Anemone hephehensis*. Near Swanley Village, W. Kent (v.c. 16), 16/9/94, J.R. Palmer, at side of footpath. Flowers pink with five sepals, i.e. the old original Japanese Anemone and near old cottage garden. Probably rare as an escape but perhaps we should be looking more closely at these.
- Thalictrum speciosissimum*. Damp grassland, Hextable, W. Kent (v.c. 16), 18/7/94, J.R. Palmer. Likely to have been introduced originally with grass-seed. Looks permanent. (This native of Iberia is very glaucous, with prominent veins beneath the leaflets).
- Soleirolia soleirolii* (Mind-your-own-business). Covering stones on the bank of a beck near Allerston, N.E. Yorks. (v.c. 62), 44/88V, 1994. Peter J. Cook.
- Mirabilis jalapa* (Marvel-of-Peru). Rubbish tip, Greenhithe, W. Kent (v.c. 16), 18/9/94, J.R. Palmer. A frequent escape in Spain, but frost will prevent its persistence in the wild in Britain.
- Amaranthus powellii*. Abundant in maize at Northfleet Green, W. Kent (v.c. 16), 5/9/82. J.R. Palmer, det. E.J. Clement. This spiny form of *A. hybridus* (see also Stace p.189) was on a farm where wool shoddy had been used some years before, and it was present for years afterwards, up until today as far as I know. But enormous quantities of *Phalaris aquatica* there make the source indeterminate.
- Amaranthus retroflexus* (Common Amaranth). Under bird table, Stoughton, Leicestershire (v.c. 55), August 1994, Mrs A.C. Gregory.
- Hibiscus triomum* (Bladder Ketinia). In an urban garden in Withernsea, S.E. Yorks. (v.c. 61), 54/32N, 1994. Peter J. Cook. Owner has not recently imported bedding plants but has fed birds.
- Salix elaeagnos* subsp. *angustifolia* (Cariot) Rech.fil. Crayford, W. Kent (v.c. 16), 30/7/94, J.R. Palmer. A procumbent seedling about 25 cm. long, some distance from planted bushes. Leaves less than 1 cm wide.
- Neslia paniculata* (Ball Mustard). One plant just outside the Docks, King's Lynn, W. Norfolk (v.c. 28), 1994, R.M. Payne.
- Philadelphus delavayi* L. Henry. In dense scrubby woodland, Swanscombe, W. Kent (v.c. 16), 19/8/94, J.R. Palmer. Leaves to 18 cm. long, the largest of all *Philadelphus* except possibly *P. × monstrosus*. Stems angled, pale brown to whitish. Leaves toothed, acuminate, apex rather tapering, dark lustrous green above, hairy beneath. Status relatively good.
- Spiraea canescens* (Himalayan Spiraea). Very large patch in field at Goodwick, Pems (v.c. 45), on N side of upper approach road to Fishguard Harbour, 14/7/70, J.R. Palmer.
- Cotoneaster obtusus*. Many seedlings large and small on Victoria Embankment, Middx (v.c. 21), on pavements and by railings etc., 22/9/94 J.R. Palmer. Called 'Dartford Cotoneaster' in Stace because many people first saw it when I showed it on Bowman's Heath, Dartford, but is probably fairly widespread. Can be seen bird-sown in a natural copse on Barnehurst Golf Course, and around Old Bexley, W. Kent (v.c. 16). (Bowman's Heath is now menaced by conservationists of the shrub-clearing tree-planting subspecies!).

- Cotoneaster splendens* (Showy Cotoneaster). Lambeth Palace Road, Surrey (v.c. 17), 1985, J.R. Palmer (grown on). About a dozen sizeable seedlings, on ashes used for car-parking.
- Cotoneaster transiens* (Godalming Cotoneaster). Lambeth, Surrey (v.c. 17), seedlings in abundance from large specimen in roadside copse, 26/9/94, J.R. Palmer.
- Cercis siliquastrum* (Judas-tree). A dozen or so seedlings under railings in St George's Road, Lambeth, Surrey (v.c. 17), 26/9/94, J.R. Palmer.
- Vigna radiata* (Mung-bean). Two sites in King's Lynn, W. Norfolk (v.c. 28) (both near the Docks), 1994, R.M. Payne, det. K.A. Beckett.
- Medicago glutinosa*. Grassy bank by footpath, Ebbsfleet, W. Kent (v.c. 16), 24/7/82, J.R. Palmer. Similar to Sickle Medick but legume in loose spiral of 1½–2 turns. (See *Flora Europaea* Vol. 2, 1968). The building of the Channel Tunnel International Rail Station at Ebbsfleet, together with a proposed 'Eurocity' of 200,000 people means the destruction of a large area with its many interesting native and introduced plants.
- Lupinus angustifolius* (Narrow-leaved Lupin). Several plants in car park on shingly ground, very near the Docks, King's Lynn, W. Norfolk (v.c. 28), 1993 & 1994, R.M. Payne.
- Amorpha fruticosa* L. (False Indigo). A patch-forming relic in dense scrub, New Hythe, W. Kent (v.c. 16), 24/6/83, J.R. Palmer, det. E.J. Clement.
- Lythrum junceum* (False Grass-poly). Disused limestone quarry, Stonesby Quarry, NW Leicestershire (v.c. 55), August 1994, Mrs A.C. Gregory.
- Fuchsia magellanica* var. *magellanica* (Fuschia). On side of brick wall, Swanscombe, W. Kent (v.c. 16), 18/9/94, J.R. Palmer. 9 in. high, not in neighbouring gardens.
- Acer cappadocicum* (Cappadocian Maple). Three trees in separate sites in Hampton-in-Arden, Warwickshire (v.c. 38), all ± 90 years old: Boundary hedge, SP/206814, 21/10/87, Road hedge of large garden, suckering freely and providing a substantial extension of the hedge. SP/200825, 12/10/88; Woodlet in field, suckers occasionally seen but usually grazed to ground by cattle, SP/203806, 15/10/88. All have butter yellow leaves in autumn and may have been planted by Sir Frederick Peel who introduced many foreign trees to the village during his 56 years residence from 1850-1906. Sheila Apted.
- Mangifera indica* (Mango). Rubbish tip, Northfleet, W. Kent (v.c. 16), 1971 J.R. Palmer.
- Solanum nigrum* subsp. *schultesii*. This distinctive sub-species occurred in several sites in the centre of King's Lynn, W. Norfolk (v.c. 28), in October 1994, R.M. Payne.
- Lamiastrum galeobdolon* subsp. *argentatum*. In natural vegetation on country roadside far from houses, Swanley Village, W. Kent (v.c. 16), 27/5/94, J.R. Palmer. Naturalised in a small plantation in the corner of a meadow in Roos, S.E. Yorks (v.c. 61), 54/22Z, 1994. Peter J. Cook. First found as a well-established colony in 1989, still there in 1994. Suspected to have been planted in the early 1960s and appears to be well-contained.
- Hebe × kirkii* (J.B. Armstr.) Ckn. & Allan. Phillack, W. Cornwall (v.c. 1), 11/7/81, J.R. Palmer. Side of stone wall, not near houses.
- Hebe parviflora*. One small plant on wall top, King's Lynn, W. Norfolk (v.c. 28), 1994, R.M. Payne, det. K.A. Beckett. Clearly an escape (?bird-sown) from a nearby garden where the species was growing.
- Cirsium rivulare* (Brook Thistle). On roadside, Glamis, Angus, Forfar (v.c. 90), 12/7/68, J.R. Palmer, det. D. McClintock (var. *atrosanguineum* (?= var. *atropurpureum*). Possibly overlooked for Melancholy Thistle elsewhere?
- Pilosella aurantiaca* subsp. *carpathicola* (Fox-and-cubs). On land not cultivated since c. 1945 in Withernsea, S.E. Yorks (v.c. 61), 54/32I, 1994. Peter J. Cook. First found as a well-established colony in 1989, still there.
- Conyza sumatrensis* (Guernsey Fleabane). Several plants on waste ground just outside the Dock gates, King's Lynn, W. Norfolk (v.c. 28), 1993. Quite a marked northerly extension of its previously known range. R.M. Payne.
- Ambrosia artemisiifolia*. One plant in Docks, King's Lynn, W. Norfolk (v.c. 28), 1993, R.M. Payne, det. K.A. Beckett.

- Agrostis castellana* (Highland Bent). Several plants at base of wall, King's Lynn, W. Norfolk (v.c. 28), 1993, R.M. Payne. When I returned with another interested botanist the area had been 'tidied up' and the plants had disappeared. Fortunately I had pressed one specimen for my herbarium.
- Polygogon viridis*. Several plants of this perennial grass were growing at the base of an old wall, King's Lynn, Norfolk, 1993 & 1994, R.M. Payne
- Hosta fortunei*. By the W side of the A819 some way N of Inveraray, Argyll, 29/7/61 J.R. Palmer. Status good. Also, naturalised at Henley Park Lake, Surrey, 1966.
- Crocus kotschyanus* (Kotschy's Crocus). Dartford Heath, W. Kent, 5/10/94, J.R. Palmer. Not planted. One specimen only but perhaps the last of several.

Geoffrey Wilmore has provided the following list of the more interesting species recorded at East Ardsley shoddy fields (S.W. Yorks, v.c. 63) during a visit on October 2nd 1994:

Amaranthus hybridus (Green Amaranth), *A. retroflexus* (Common Amaranth), *Ammi visnaga* (Toothpick-plant), *Carduus pycnocephalus* (Plymouth Thistle), *Centaurea calcitrapa* (Red Star-thistle), *Datura stramonium* (Thorn-apple), *D. stramonium* var. *tatula*, *Echinochloa crusgalli* (Cockspar), *Erodium botrys* (Mediterranean Stork's-bill), *E. cernitum* (Eastern Stork's-bill), *E. moschatum* (Musk Stork's-bill), *Fallopia convolvulus* (Black-bindweed), *Hedysarum coronarium* (Italian Sainfoin), *Medicago arabica* (Spotted Medick), *M. laciniata* (Tattered Medick), *M. minima* (Bur Medick), *M. polymorpha* (Toothed Medick), *Physalis ixocarpa* (Tomatillo), *Rumex dentatus* (Aegean Dock), *Scorpiurus muricatus* (Caterpillar-plant), *Setaria verticillata* (Rough Bristle-grass), *S. viridis* (Green Bristle-grass), *Sisymbrium irio* (London-rocket), *Solanum nigrum* subsp. *schultesii* (Black Nightshade), *S. physalifolium* (Green Nightshade), *Trifolium angustifolium* (Narrow Clover), *T. hirtum* (Rose Clover), *T. incarnatum* subsp. *incarnatum* (Crimson Clover), *T. subterraneum* (Subterranean Clover), *Xanthium spinosum* (Rough Cocklebur), *X. strumarium* (Spiny Cocklebur)

GWYNN ELLIS, Editor

× *CONYZIGERON HUELSENII* IN EAST LONDON

This striking plant is a rare bigeneric hybrid between *Conyza canadensis* (Canadian Fleabane) and *Erigeron acer* (Blue Fleabane). I have chosen to draw it for our front cover because (a) I have not seen it illustrated in any botanical literature and (b) I wish to clarify its distinctness from *Conyza bonariensis* (Argentine Fleabane) with which it has been compared (Stace 1991, Wurzell 1994). It is a beautiful intermediate between morphologically very different parents, a North American annual and a native perennial respectively. Its most spontaneously noticeable features are pale lilac-mauve flowers on numerous slender, spreading panicle branches. Most of these branches additionally carry two or three lower capitula in a weakly racemose pattern as inherited from *C. canadensis*; usually they fail to open. The branches overall combine to produce a silhouette more obviously resembling *E. acer* in breadth, with laterals approaching, equalling or slightly exceeding the central axis (not far overtopping it as is characteristic of *C. bonariensis*). The leaves are narrowly lanceolate to narrowly elliptic, acute towards the top of the plant and progressively more obtuse towards the bottom. (In *C. bonariensis* they are linear and flexuous.) They bear marginal cilia of varying lengths and angles but these are mostly thinner and softer than those of *C. canadensis* (compare with the minutely downy leaf margins of *C. bonariensis*). The stems also are covered with a variable indumentum, hairs ranging from straight and slender to short and hooked with stout bases; all are semi-transparent and rather hispid. The capitula appear wholly sterile, with seedless pappus adhering firmly to receptacle.

I discovered this 50 cm tall plant on October 12th, 1994, during an ecological survey undertaken for London Docklands Development Corporation by the Beckton stretch of the Northern Outfall

Sewer, London Borough of Newham. I had seen it previously only in a single calcareous Sussex locality in the 1970s (Wurzell 1994), and guess that its even more surprising occurrence at Beckon may have been stimulated in consequence of loose earth introduced from a rural district. The surrounding habitat otherwise appeared quite unsuitable for colonisation of the sand- and chalk-favouring *E. acer*; it comprised a flat, formerly grazed, heavily compacted expanse of nutrient-rich clay soil. *C. canadensis* proved scarce on the same loose mound, but their associated vegetation was of such nature as to suggest growth commencing the year before. Thus it is reasonable to postulate that *C. canadensis* would have been more plentiful in 1993; together with sufficient first-year-flowering *E. acer* to produce a biennial hybrid. As another season passes, all three will decline in the face of competition from more vigorous wayside and wasteland perennials.

I'd like to take this opportunity to thank everyone who has sent me further observations and specimens of *Conyza sumatrensis* (Sumatran Fleabane) from southern England. Such material is of great interest and includes a number of new county records. Another update on the status of this invading plant is in preparation, and all correspondents will be acknowledged.

References

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 Wurzell, B. 1994. A history of *Conyza* in London. *BSBI News* 65: 34.

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CORISPERMUM LEPTOPTERUM AND THE SAND-DUNE FLORA AT EMSCOTE NEAR WARWICK

Corispermum leptopterum (Ascherson) Iljin from the Chenopodiaceae is a Southern European annual described by P. Aellen in *Flora Europaea* (Vol. 1, 1964):

Plant 10-60cm., branched from the base, usually glabrous. Leaves alternate, linear-lanceolate to lanceolate, flat. Spikes short or long, usually dense. Flowers hermaphrodite, solitary in the axils of bracts. Lower bracts lanceolate, completely covering the fruit. Perianth-segment 1. Stamens 5. Stigmas 2. Achene 3.3-4.3×2-3.5 mm., strongly compressed, obovate or obovate-oblong, apex rounded, truncate or triangular. Wing narrow and thick, or broad and membranous (1/4-1/8 as wide as achene), entire or undulate. Seeds vertical. Occurs on shingle or in sandy habitats.

It is a casual in Northern Europe and briefly described in *The Wild Flowers of Britain and Northern Europe* (Fitter, Fitter & Blamey 1985).

C. leptopterum was first reported at Emscote in 1962 from among sand-dune species introduced probably in 1958 when large quantities of sea sand from Margam, Glamorgan, were used to extinguish a long burning fire in a railway embankment. The late Malcolm Clark wrote in 1964 that 'over an area of roughly 100 yards by 30 is a deep layer of sea-sand, some of it quite loose, but elsewhere consolidated into what might well be called "fixed dunes". This deposit of sand covers a siding alongside the main line, a track branching off to a power station and some ground in between'. The power station was dismantled in the mid-1970s, the site is not yet redeveloped.

It was assumed that the plant had arrived with the sand but there was no record of the species in South Wales and, 'as far as can be traced, has been recorded only once before in this country. This was many years ago as a casual near docks' (Clark 1964). A colony in Bathside Bay on the Stour in North Essex was reported in 1992 (Gibson 1992).

At Emscote in 1962 *C. leptopterum* was abundant and despite a very severe winter, also in 1963. I did not find it in 1977 while surveying the sand-dune flora (Bowra 1977) or during many visits in subsequent years to study *Oenothera*; but an area of sand exposed in 1989 by works on a small part of the c.10 m. wide verge (where the siding was) produced two plants in 1990. No plants were found in 1991 and 1992 but in 1993 there were two small groups each of c 10 plants c 100 m. to the east of

the 1990 site (by then reverted to coarse vegetation): one on a small area of exposed sand; the other c. 9 m. south near the railway where sprayed herbicides create alongside the ballast a c. 1 m. trough of periodically lethal open-ground. No plants were seen in 1994.

THE SAND-DUNE PLANTS

In wet 1993 and 1994, there were only four small areas of exposed sand all on the inside edge of the verge. Elsewhere, the high vegetation included *Artemisia vulgaris* (Mugwort), *Urtica dioica* (Common Nettle), *Armoracia rusticana* (Horse-radish), *Buddleja davidii* (Butterfly-bush), *Clematis vitalba* (Traveller's-joy), young *Acer pseudoplatanus* (Sycamore), *Chamerion angustifolium* (Rosebay Willowherb), *Hypericum perforatum* (Perforate St John's-wort), *Senecio jacobaea* (Common Ragwort), *Rubus idaeus* (Raspberry), *Pastinaca sativa* (Wild Parsnip), *Heracleum sphondylium* (Hogweed) and *Solidago gigantea* (Early Goldenrod). The adjacent track to the power station had for many years been almost impassable.

The table on page 35 shows past and present state of the sand dune flora. Added since 1977 are two probable omissions from the 1962/63 list: *Rubus caesius* (Dewberry), frequent among the tall vegetation on the verge; and *Viola canina* subsp. *canina* (Heath Dog-violet), rare near a patch of loose sand, recently in the trough near the railway and, more permanently, along a narrow shelter from sprays provided by a c. 25 cm. deep cement side of a conduit for cables alongside the ballast. This fragile open-ground haven has been found by several smaller sand-dune plants.

Groups of *Saponaria officinalis* (Soapwort) have spread over most of the site but not beyond. After at least ten years' absence, a few plants of *Diploxixis muralis* (Annual Wall-rocket) appeared in 1990 close to the *Corispermum* but I have found none since. *Erodium lebelii* (Sticky Storks-bill) became frequent in 1990 on a strip of ballast laid to assist bridge repairs. The ballast is now mostly overgrown but the species remains more frequent than it had become and has also found the trough and the narrow shelter alongside the railway. Scattered groups of *Ononis repens* (Common Restharrow) and *Echium vulgare* (Viper's-bugloss) have spread to the power station site.

The *Oenothera* (Evening-primroses) consist of *O. cambrica* (Small-flowered Evening-primrose) and (in 1988) about four times as many hybrids with *O. biennis* (Common Evening-primrose): there were 765 plants in 1993. As in South Wales, all but very few have the leaves and therefore the appearance of *O. cambrica*, indicating that this species was originally numerically dominant. The species and almost certainly the hybrids have spread to the power station site but there has apparently been no reciprocal spread from the annually changing several thousand strong hybrid swarm down below: I have seen none of the easily recognisable characters of *O. glazioviana* (Large-flowered Evening-primrose) nor the distinctive upswept and twisted leaves of the formerly abundant *O. biennis*. It is likely, therefore, that railway plants continue to be true descendants of the 1958 importation from Wales (Bowra 1992).

Salix repens (Creeping Willow) (male and probably one plant) survives on the side of the embankment of the track, mostly buried much as in 1977 to the tips of its branches in brambles. *Carex arenaria* (Sand Sedge) has decreased because of rank vegetation but is still widespread on the edges of the verge. *Elytrigia juncea* subsp. *boreoatlantica* (Sand Couch) disappeared in the early 1980s partly due to motorcycle activity. *Ammophila arenaria* (Marram) has been reduced to four dwindling groups of 20, ten, five and two tufts surrounded by high verge vegetation. *Phleum arenarium* (Sand Cat's-tail) is very rare but has occurred regularly in the narrow shelter alongside the railway.

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Emscote, near Warwick. The Sand-dune Flora

Species	1962/3	1977	1993/4
<i>Saponaria officinalis</i> (Soapwort)	Large colonies	Large colonies	Large colonies
<i>Diploxatis muralis</i> (Annual Wall-rocket)	Occasional	Occasional	See text
<i>Cakile maritima</i> (Sea Rocket)	Rare	Not found	Not found
<i>Salsola kali</i> (Saltwort)	Occasional	Not found	Not found
<i>Corispermum leptopterium</i>	Abundant	Not found	Two groups
<i>Viola canina</i> subsp. <i>canina</i> (Heath Dog-violet)	Not found	Not found	Several groups
<i>Rubus caesius</i> (Dewberry)	Not found	Not found	Frequent
<i>Erodium lebelii</i> (Sticky Stork's-bill)	Occasional	Frequent	Locally frequent
<i>Ononis repens</i> (Common Restharrow)	Frequent	Frequent	Several groups
<i>Trifolium arvense</i> (Hare's-foot Clover)	Rare	Not found	Not found
<i>Oenothera</i> sp. (Evening-primrose)	Abundant	Abundant	Frequent
<i>Salix repens</i> (Creeping Willow)	One colony	One colony	One colony
<i>Eichium vulgare</i> (Viper's-bugloss)	Abundant	Abundant	Locally frequent
<i>Carex arenaria</i> (Sand Sedge)	Large colony	Abundant	Locally frequent
<i>Elytigia juncea</i> subsp. <i>boreoatlantica</i> (Sand Couch)	Large colony	Occasional	Not found
<i>Ammophila arenaria</i> (Marram)	Abundant	Abundant	Four small groups
<i>Phleum arenarium</i> (Sand Cat's-tail)	Rare	Abundant	Rare

ROSA GALLICA L.

Sooner or later somebody is sure to notice that *Rosa gallica* L. (Red Rose of Lancaster) is wrongly keyed in the Key to native and alien species on pages 51 and 52 of the Rose Handbook; also in the rather unlikely event of anyone coming across this species in the wild it would not be possible to identify it. When modifying a native only key to include the aliens described in the Handbook I inadvertently put *R. gallica* in the wrong pair of leads.

This can easily be remedied without detriment to the efficacy of the key for other species by altering dichotomies 15 and 16 in the following manner:

- | | | |
|----|--|-----------------------|
| 15 | Stems with numerous mixed prickles and acicles | 16 |
| 15 | Acicles absent | 17 |
| | | |
| 16 | Larger prickles pubescent at base; hips large, 2 cm. or more; sepals long and narrow 2-3 cm., simple, erect after flowering; pedicels curved (alien often planted) | 6. R. rugosa |
| 16 | Prickles glabrous; hips smaller 1-2 cm.; sepals short c. 10 mm., triangular, lobed, reflexed after flowering; pedicels straight (rare alien or escape) | 10. R. gallica |

This is how the key was intended to be in the first place. I apologise for the mistake. Fortunately since *R. gallica* is now fairly rare in or out of gardens, the error will not greatly affect the normal use of the key.

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AN INVASIVE ALIEN PLANT FROM SOUTH AMERICA IN WHITEKNIGHTS PARK, CAMPUS OF THE UNIVERSITY OF READING

In August 1985 an alien species of *Solanum* was seen in three separate places in Whiteknights Park, the main campus of the University of Reading. It was identified as *Solanum vernei* Bitt. et Wittm. and reported by the late Adrian L. Grenfell in the Adventives section of *BSBI News* 41, December 1985, the information being attributed to J.R. Akeroyd, S.L. Jury, D.J. Farmer and N.J. Spencer, RNG., det. J.G. Hawkes. It is a native of the Argentine and its appearance in Reading was apparently its first sighting in this country. That was nine years ago; today, in 1994 it has made great strides! It can still be found in its original three places, but in addition it has spread all along the grass verge of the footpath leading down to the lake at the so-called Black Bridge; there is an abundance of it along both sides of the drive which leads to Foxhill House (an annexe to one of the Halls of Residence); a huge patch on the west bank of the middle lake among shrubby alders and dogwood bushes, and, in greatest profusion of all, it has taken over a good quarter of the front garden of Foxhill Lodge and there are great clumps of it along both the inside and outside of the garden fence, as if its next ambition might be to cross over to the north side of Whiteknights Road!

Solanum vernei is a handsome plant, rather like a tomato in vegetative appearance with flowers similar to those of a potato – typically solanaceous, in fact. It is thought to have been introduced into the park with some soil from one of the University farms where students had been doing experimental work on wild potatoes. It seems perfectly capable of holding its own with brambles, nettles and quite long grass but cannot compete with ivy – though this may simply be due to the fact that ivy tends to grow in shadier places than the alien plant can tolerate. There is an excellent description of this plant by Conrad V. Morton on page 58 of his book *A Revision of the Argentine Species of Solanum*, 1976.

Finally, I should add that the park is not in immediate danger of being taken over by this aggressive immigrant as the Superintendent of Grounds is keeping a watchful eye upon it and intends to take drastic action should it threaten to get seriously out of hand!

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THE INEXORABLE SPREAD OF *CONYZA SUMATRENSIS*

After being shown the East London colonies of *Conyza sumatrensis* and *C. bonariensis* by Brian Wurzell on one of his excellent botanical guided tours, I returned to my home in Ascot and promptly found *C. sumatrensis* flowering away happily in my own garden! Alerted to my former negligence I looked around a bit further and found the plant in the adjacent parishes of North Ascot, Sunninghill and Sunningdale. Emboldened by this success I ventured to Maidenhead, where the plant was common in exactly the urban niches that Brian had pointed out in London (viz. those soil-filled cracks at the bottom of brick walls, between the brickwork and the concrete surface of the car-park). In Ascot, the favourite habitat appeared to be cracks in garden paving; here, the flowering plants varied in height from about 10 cm. to a more typical 150 cm. or so. I wonder how many other aliens I am passing over because I haven't received the 'giz' that is obtained from seeing the live plant in the field at first hand. I strongly recommend you look out for this plant in September. The hairs of the leaf edge provide an excellent character; hairs closely appressed to the leaf edge = *C. sumatrensis*; hairs spreading and widely spaced = *C. canadensis* (in the text of Stace's *New Flora* rather than the key).

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ALIENS ON HAYLING ISLAND

Hayling Island in SE Hampshire (v.c. 11) is well known to botanists for its sand dune, shingle and saltmarsh flora. Apart from its native delights there are two much visited aliens, *Clematis flammula* and *Parthenocissus quinquefolia*, which have been around for years and were still present in 1994.

In 1990 I discovered a strange plant in a hedgerow fairly close to the above mentioned aliens that I could not identify. In 1992 I visited the site with George Forster and showed him the plant. He said at once that it was a *Lonicera* species but could not name it. Wandering around the vicinity we discovered *Elaeagnus umbellata* growing behind an old, disused wartime building. Samples of the *Lonicera* were sent to Eric Clement and he determined it as *Lonicera tatarica*.

Since 1990 the *Lonicera* has expanded and is now very prominent in the hedgerow whereas when it was first discovered it was difficult to see amongst the other vegetation. The *Elaeagnus* is a fully mature shrub (tree?) about 6 m tall, with a trunk about 14 cm in diameter and leaning at an angle of 45 degrees.

The origin of both of these plants is open to discussion. Both produce fruits that are eaten by birds so that may provide a clue. Maybe all of these aliens so close together are relics from wartime use of the area.

The *Elaeagnus* appears in Stace's *New Flora of the British Isles* (1991) but there is no mention of the *Lonicera*. The following descriptions and accompanying drawings should be adequate to separate these species from related plants that occur in gardens and could also conceivably escape.

Lonicera tatarica (Tartarian Honeysuckle)

A deciduous, glabrous, erect shrub up 3 m. tall with hollow pith to the stems. The leaves are 2.5-8 × 1.7-4.5 cm; ovate or ovate-lanceolate, acute or subacute, sometimes acuminate, truncate or



Lonicera tatarica (Tartarian Honeysuckle)



Elaeagnus umbellata Thunb. (Elaeagnus)

cordate at base; usually glabrous. The peduncles are 15-30 mm long. The bracts are longer than the ovary but the bracteoles are only 1/3 - 1/2 as long as the ovary and are ovate-elliptical. The corolla is 1.4-2.0 cm long, two lipped and white to red in colour with a gibbous tube. The ovaries are free.

The plant flowers from May – June and produces globose berries that are usually red, but may be orange or yellow in July to August.

There are a number of varieties based on leaf size, habit and corolla colour.

The plant is a native of N & C Asia and is now naturalised in Europe and N America. In the British Isles it is a very rare persistent garden escape or relic. It has only been previously recorded from Oulton Broad in East Suffolk, West Grinstead in West Sussex and Hextable in West Kent.

Elaeagnus umbellata Thunb. (Elaeagnus)

A variable, deciduous, sometimes partly evergreen, often spiny, spreading shrub up to 6 m tall, the young shoots covered with silvery scales that soon turn brownish. Leaves alternate, elliptic to ovate 3-10 × 2-4 cm, green on the upper surface, silvery beneath. The flowers are axillary, 6-12 mm long in clusters of 1-7 or more, creamy-white to yellowish inside and silvery outside, fragrant. The funnel-shaped tube is much longer than the segments and gradually narrows towards the base.

The plant flowers in May – June and produces white-speckled, red 6-8 mm globose fruits, which are scaly at first.

The plant is a native of E Asia. In the British Isles it is a persistent garden escape in various habitats especially hedgerows, usually bird sown. There have been records for Amroth in Pembrokeshire, Kings Mills in Guernsey and Godalming in Surrey. Seedlings have been reported from Littlebrook Marshes and Dartford Heath in West Kent.

My thanks to Eric Clement for his help in the identification and technical aspects of this note and to Mary Taylor for the drawings of the two plants.

DICK BARRETT, 20 Bridefield Close, Cowplain, WATERLOOVILLE, Hants. PO8 8PY

CAPNOIDES SEMPERVIRENS IN HAMPSHIRE

In June 1994 a single plant of *Capnoides sempervirens* (L.) Borkh. (Papaveraceae) was found growing in the Sir Harold Hillier Gardens and Arboretum near Romsey in South Hampshire (v.c. 11). The plant was noticed by Gardener Kevin Orchard, growing in light, sandy soil in a sunny position amongst a dense clump of *Ornithopus perpusillus* in Brentry Woodland, an area of the Gardens rich in Rhododendrons. The Sir Harold Hillier Gardens, which are managed by Hampshire County Council, are known internationally for their extremely large collection of mainly woody plants, but this is not a species that has ever been cultivated there. It is, however, available as plants or seed from several nurseries in this country and can occasionally seed itself in gardens.

Capnoides sempervirens, a native of North America, makes an attractive, unusual annual or biennial to about 60cm tall, the small, pink, yellow-tipped flowers contrasting effectively with the glaucous foliage. It is also sometimes listed as *Corydalis sempervirens* but the 2nd Edition of *Flora Europaea*, according to which it is naturalised in Norway, separates *Capnoides* from *Corydalis* on the basis of its cymose inflorescence, (racemose in *Corydalis*) and its inconspicuous bracts. According to Eric Clement, joint author of *Alien Plants of the British Isles*, it has been recorded only twice previously for this country, in an old quarry at Hassop in Derbyshire in 1971 and on waste ground at Wisley in Surrey in 1985, where the plants almost certainly came from those previously grown in the gardens. A voucher specimen has been deposited at the Natural History Museum (**BM**): A.J. Coombes 167, June 23rd 1994.

ALLEN J. COOMBES, The Sir Harold Hillier Gardens and Arboretum, Jermyns Lane, Ampfield, ROMSEY, Hampshire SO51 0QA



Capnoides sempervirens, del. Sue Oldfield © 1994

IOCHROMA AUSTRALIS – A NEW BRITISH ALIEN

Iochroma australis (Solanaceae) is a South American shrub native to Argentina. It was first reported as becoming naturalised at Nottingham, under the name *Acnistus australis* (*BSBI News* **65**: 42, 1994). Efforts to establish the correct name for this taxon, along with preliminary observations, form the basis for this short note, which has been prepared in view of the scant literature available.

Synonymy

Iochroma australis Griseb., *Abhandl. Konigl. Gesells. Wissensch., Gottingen.* **19**: 170 (1874).

Acnistus australis (Griseb.) Griseb., *Loc. cit.* **24**: 247 (1879).

Dunalia australis (Griseb.) Sleumer, *Lilloa* **23**: 137 (1950).

Description (See illus. p. 42).

Deciduous shrub, reaching 5 m in cultivation, but often less. Bark silvery-grey, with numerous lenticels and fissures, rather corky. New shoots arising from the centre of the bush, growing vertically until the bush is overtopped, then spreading out horizontally. In subsequent years branches gradually becoming weighed down and being replaced by newer ones from above. Leaves alternate, subsequent leaves and inflorescences arising from the axillary bud, which gradually produces a reduced shoot. Leaves lanceolate, reaching 8 cm long \times 2.5 cm wide, with a petiole up to 2 cm. Upper surface darker green with sparse linear trichomes, lower surface light green with prominent midrib and lateral veins. Inflorescence consisting of (1-2-5) flowers on pedicels c. 3 cm long. Calyx and pedicels with numerous fine linear trichomes. Calyx campanulate, 5-6 mm long, with 5 shallow, mucronate lobes c. 1 mm in depth, ribs prominent. Corolla campanulate, deep blue or occasionally white, c. 2.5 cm long, lobes typically 5 with margins appearing fimbriate in fresh material due to papillate trichomes. Inner surface only pigmented in the upper half, glabrous except for the hirsute-lanate basal third. Outer surface velutinous with numerous minute trichomes. Stamens with filaments basally dilated and adnate to the corolla base, elongating during anthesis from c. 1 cm to 2.5 cm. Anthers elliptic, 3 mm long. Pollen pale yellow. Ovary superior, conical, with an apical style up to 3 cm long, curved at first, becoming straight, dilated below the sub-bilobed stigma. Fruit a green subspherical berry with persistent style base, becoming yellowish when ripe. Seeds numerous, embedded in pulp. Sterile seeds spherical c. 1 mm diameter. Fertile seeds flattened c. 1.5 \times 2 mm, testa with minute pits.

Notes

The largest shrub observed is now at least 20 years old, and seems very hardy, although usually the apical 5 to 15 cm of each twig dies back in winter. Leaves and flowers expand rapidly from the axillary buds in early May and flowering, which lasts about three weeks, commences in late May or early June. The flowers attract a large number of bumble bees in variety. At the beginning of anthesis the style emerges (illus. C), a few days later the filaments have elongated to reach or slightly exceed the corolla margin (illus. D), which may assist cross-pollination.

The fruits do not attract birds, but fall when ripe, after which, they are consumed by molluscs and possibly small mammals. The seeds remain on the soil surface or within the rotten fruit until germination commences the following spring. Germination tests reveal virtually no difference between seeds exposed all winter on the soil surface and those kept in a packet at room temperature with germination rates of 98% and 96% respectively. The spread of this species seems to be limited by a lack of seed/fruit dispersal, but it appears to have considerable potential for naturalisation.

A species that might be confused with *I. australis* is *Dunalia cyanea*, which differs mainly in the shorter stamens that each produce a pair of lateral cusps from the filament (illus. A), reminiscent of *Allium* section *Allium*. These tricuspidate filaments were used by Hunziker (*Bol. Acad. Nac. Cien., Cordoba*, **41**: 211-244, 1960) to separate *Dunalia* from the related *Acnistus* and *Iochroma*. *Dunalia cyanea* is apparently frequently cultivated as an ornamental in the south of Europe, especially France. I have no information as to its status as an alien there. A number of other species of *Iochroma* are cultivated, but these are not very hardy and are unlikely to become naturalised on the British mainland.

JULIAN M.H. SHAW, Dept. of Pharmaceutical Sciences, University of Nottingham,
NOTTINGHAM NG7 2RD

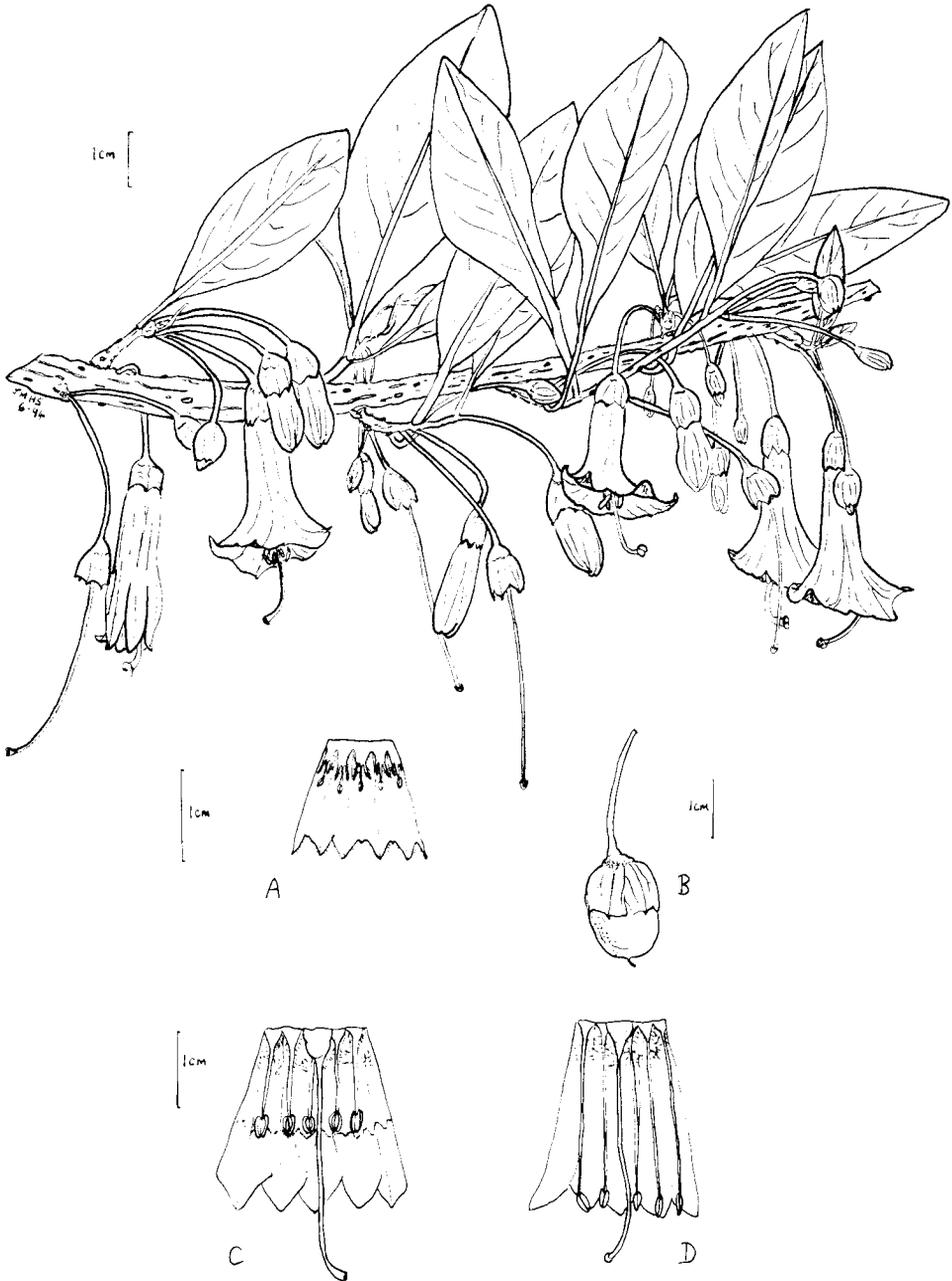


Illustration: *Iochroma australis* part of flowering branch
 A, *Dunalia cyanea* opened corolla; B-D, *Iochroma australis* B, fruit; C, opened corolla of newly opened flower, D, opened corolla of old flower.

SISYMBRIUM VOLGENSE: NEW TO DERBYSHIRE

Early last summer (1993) while walking along the Sandiacre canal towpath near Stapleford, an interesting yellow flowered crucifer caught my attention. It was immediately apparent that this was a *Sisymbrium* from the leaves and inflorescence, but which one? In the area both *S. loeselii* (False London-rocket) and *S. officinalis* (Hedge Mustard) are common, and *S. orientale* (Eastern Rocket) along with *S. altissimum* (Tall Rocket) occasionally occur. At first I was inclined to dismiss the plant as *S. loeselii*, but some things did not fit. The glaucous foliage, large flowers and narrow branches of the inflorescence, made me feel that this must be something else. Could it be the rare *S. volgensis* (Russian Rocket)? There was also the matter of the habitat to consider. A number of tall stems emerged from a dense thicket of *Rubus* sp. (Bramble) in a hedgerow, hardly the place where an annual could grow. And another thing, it was growing between a canal and a railway, what a give away!

Later, back home with a small flowering shoot, out came the literature. *BSBI News* 30: 10-11 (1982), *Watsonia* 12: 311-314 (1979) and of course the *Crucifers Handbook* (T. Rich, 1991). This plant had rather more deeply lobed leaves than those depicted and seemed to be well on the way to producing ripe fruits. Also two of the characters in the *Sisymbrium* key, at couplet 7 (*Crucifers*, p. 50) are not mutually exclusive and it just was not practical to try pulling up a plant in the middle of such a Bramble thicket! But it did seem to be *S. volgensis*.

Time went by, then on a later walk, I found some ripe fruits, mostly dehiscent, but with a few seeds remaining. This time the key in *Flora Europaea* (ed. 1) I: 264 at couplet 20 provided a most useful character, seed size, which worked really well with my material; it had to be *S. volgensis*.

This year (1994) there has been some maintenance work done on the canal towpath and the colony is more accessible. As a result the pencil-thick rhizome was easily found and the identity of the plant resolved beyond all doubt. Neither *The Flora of Derbyshire* (Clapham, 1969) nor either of its two supplements contain any mention of *S. volgensis* and this locality, just inside Derbyshire by a hundred yards or so, appears to be the first county record.

Finally, an observation on *S. orientale*. Seed collected from fruiting plants on the sea front at Chapel-St. Leonards (Lincs.) germinated readily in a frost free greenhouse and flowered early this spring. With insect pollinators unavailable, these plants have produced copious seed, which raises a question concerning the statement that *S. orientale* is self-incompatible (*Crucifers*, p. 112). It appears that the stigma collects pollen directly from the overhanging anthers. Thus these plants appear to be self-compatible and it seems likely that populations, or at least alien populations, vary in their degree of self-compatibility. Baker (*Evolution* 9: 347-348, 1955) first expressed the notion that autogamy is a prerequisite for the successful establishment of long distance migrants, and it is well known that the genetical processes involved in the breakdown of self-incompatibility are much simpler than those involved in its establishment. This helps to explain why so many established alien plants are self-compatible.

One other surprise was the rapid rate at which the ovary elongated as the fruits developed. In only a few days they extended from about 4 mm to 100 mm, which gives new meaning to the name Rocket!

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

NOTICES (BSBI)

NEW ERRATA SHEETS FROM LEICESTER

- 1 *List of Vascular Plants of the British Isles*, by D H Kent
The second Errata Sheet (November 1994) is now ready for distribution. Copies of the first issue (October 1993) are also still available.
- 2 *New Flora of the British Isles*, by Clive Stace
The second reprint will appear about January 1995 and the opportunity has been taken to incorporate some further corrections and changes. A sheet listing these is now available, as are copies of the changes that were made in the first reprint (1992).

Copies of any of the above are obtainable by sending a stamped (19p or 25p) self-addressed envelope at least 22 x 11 cm to:

CLIVE STACE, Department of Botany, The University, LEICESTER LE1 7RH

WHERE ARE THEY NOW?

Lynne Farrell has moved from English Nature to take up a post as EU Habitats and Species Directive Project Manager for Scottish Natural Heritage. She will be based in Edinburgh and all correspondence should be addressed to her c/o Scottish Natural Heritage, Research and Advisory Services Directorate, 2 Anderson Place, EDINBURGH EH6 5NP.

John Akeroyd is alive and well and living with 'Abby the Tabby' in darkest Wiltshire. His address is Lawn Cottage, Fonhill Gifford, TISBURY, Wilts SP3 6SG. John will be leading a field meeting in his new patch next year.

EDITOR

COTONEASTER COLLECTION OPEN DAYS

The International Dendrology Society and NCCPG collections of *Cotoneaster* (c.300 taxa) are held at Rumsey Gardens in Hampshire. Open days have been arranged for June 4th and October 8th to cover both flowering and fruiting seasons. Rumsey gardens are included in the Nursery & Gardens Open Days for charity and will be open to members on the two days from 11am to 6pm.

JEANETTE FRYER, Cornhill Cottage, Honeycritch Lane, FROXFIELD, Petersfield, Hampshire GU32 1BE

NOTICES (NON BSBI)

CALEDONIAN FOREST RESERVES

As a result of a Forest Enterprise initiative the Black Wood of Rannoch, Perthshire and Glen Affric, Inverness-shire, have been given the special status of Caledonian Forest Reserve. Both contain remnants of the ancient Scots Pine forest which once covered a large part of the Highlands. The Forest Enterprise are at present managing these woods in order to maintain and enhance them.

PETER MACPHERSON, 15 Lubnaig Road, GLASGOW, G43 2RY

OFFERS

WEST DOWN SEED LIST 1994

Small amounts of the following are available on request. Seeds are FREE, but small packets and a stamped addressed envelope are required.

Acanthus spinosus	Helleborus lividus corsicus	
Agastache mexicana	Inula helenium (D)	
Agrostemma githago	Isatis tinctoria	
Allium cernuum	Kickxia elatine (D)	
Allium moly	Kickxia spuria (D)	
Allium nigrum	Knautia macedonica	
Allium roseum (D)	Lagurus ovatus	
Allium schoenoprasum	Lavatera arborea (D)	
Anagallis arvensis (blue)	Leonurus cardiaca	
Anchusa arvensis (D)	Lithospermum arvense (D)	
Anthriscus sylvestris (D)	Lunaria annua	
Asphodeline lutea	Lupinus arboreus	
Briza maxima (D)	Marrubium vulgare (D)	
Bupleurum rotundifolium	Melilotus altissima (D)	
Carex depauperata	Misopates orontium (D)	
Centaurea cyanus	Nepeta cataria (D)	
Cephalaria gigantea	Onopordum acanthium (D)	
Cerinthe major	Paeonia lutea	
Chelidonium majus (D)	Paeonia mlokowitschii	
Chenopodium hybridum (D)	Papaver dubium (D)	
Chrysanthemum coronarium	Papaver hybridum (D)	
Chrysanthemum segetum (D)	Papaver rhoeas (D)	
Cichorium intybus	Pennisetum orientale	
Commelina coelestis	Petroselinum segetum (D)	
Cosmos bipinnatus	Ranunculus lingua	
Crambe maritima (D)	Ranunculus sardous (D)	
Cynoglossum germanicum	Ranunculus parviflorus (D)	
		Stop Press
		Agapanthus praecox
		Chenopodium murale(D)
		Doryenium hirsutum
		Impatiens balfourii
		Linaria amethystea
		Linaria genistifolia
		Nicotiana langsdorffii
		Rubia peregrina(D)
		Salvia sclarea

Dierama pulcherrima	Rudbeckia hirta
Echium vulgare (D)	Scutellaria alpina
Erinus alpinus	Sedum caeruleum
Eryinium giganteum	Silene armeria
Eupatorium cannabinum (D)	Silene coeli-rosa
Euphorbia exigua (D)	Silene noctiflora (D)
Euphorbia platyphyllos (D)	Silene rosea
Felicia bergeriana	Silybum marianum (D)
Galtonia candicans	Sonchus palustris
Gaudinia fragilis (D)	Stachys alpina
Glaucium corniculatum	Stachys germanica
Glaucium flavum (D)	

(D) = originating in Dorset

If anyone has spare seeds of *Adonis annua* or *Roemeria hybrida*, I would like to try to grow them. My garden soil is a well-drained somewhat limy loam.

HUMPHRY BOWEN, West Down, West Street, Winterborne Kingston, BLANDFORD, Dorset
DT11 9AT

REQUESTS

EXOTIC TREES

I am researching the ecological impact of exotic tree species on semi-natural vegetation and associated fauna. I would be very grateful if any members who have recorded exotic trees (i.e. those species which were introduced by man), which have established themselves in or adjacent to semi-natural vegetation (especially Ancient Woodland), could forward details of location, size/age class, proximity of parent tree and presumed means of seed dispersal of the specimen/s concerned, to me at the address below. I am particularly interested in those species which are not listed in Stace's *New Flora* and any unusual hybrids (with or without an indigenous parent). Any species which cannot be identified may be sent, dried and pressed for me to determine. I will of course refund all cost of postage.

CAMERON S. CROOK, 8 Woodstock Close, Lostock Hall, PRESTON, Lancashire PR5 5YY.

PLANT POPULATIONS

We are interested in studying plant populations and are looking for suitable datasets to carry out this work.

The basic idea is to see whether the persistence of a species is dependent upon new populations replacing extinct ones and whether this in turn depends upon populations producing enough seed to disperse to founder populations. This approach is inspired by the concept of a 'metapopulation' (i.e. a population of populations) which is increasingly used in animal conservation biology nowadays to study the likelihood that rare species can persist. No one has yet applied the concept very convincingly to rare plants.

We wonder whether you have any suitable data in your possession and whether you would be prepared to give us access to it?

The kind of information we need:

1. Maps of **all** populations in a defined area for certain species.
2. Records of total population size.
3. Records of extinctions and the appearance of new populations.

Initially we could calculate the rates at which populations of each species have disappeared (i.e. gone extinct) and reappeared (i.e. colonised) over the period for which you have records and then try to relate this to:

- i. Distance between neighbouring populations.
- ii. Size of populations & their nearest neighbours.

MICHAEL DODD, Department of Biology, The Open University, Walton Hall, MILTON KEYNES MK7 6AA

DIE-BACK IN *ALNUS GLUTINOSA*

The Alder is a tree usually found growing on the banks of rivers and lakes, on farmland where they are planted to act as windbreaks, on slag heaps because of their ability to bind the substratum together, and along motorway verges. Die-back has been observed in previously healthy trees growing on a site in Canterbury, Kent. Reports from other parts of the country suggest that this problem is more serious and widespread than was at first thought. The Ecology Research Group at Canterbury Christ Church College is studying the decline of alders and would like to obtain more information on the position of other sites for their investigations.

The common alder, *Alnus glutinosa* which is a member of the birch family (Betulaceae), is an ancient species of tree known to have been growing in Britain at the time of the last Ice Age. It is not noted for its longevity, attaining ages of between 80 and 120 years. Until the turn of the century, the alder was an economically important species, cut and utilised as charcoal in the gunpowder mills and made into submerged piles and clogs. Today these trees are found growing on river banks, where they help prevent soil erosion and provide shelter for fish, and in wetland areas.

Two years ago it became evident that there was a decline in the health of alder trees (*A. glutinosa*) growing at the Environmental Field Studies Centre in Canterbury. Subsequent enquiries led to reports of similar problems in other parts of the country. This decline manifests itself in the non-emergence of leaves, which is observed in the first instance at the top of the crown, then down the outer edges and finally the lower branches of the tree. Very often healthy tillers are visible growing from the base of a declining tree. Initial investigations indicate that the new fruit produced by trees suffering from die-back is smaller in size and contains fewer seeds.

A search of the literature has indicated several possible causes for tree decline, including pollution and infection by viruses, fungi and mycoplasmas. This literature indicates that many biological agents are 'contributing' factors which produce the visible signs of ill health but are not the primary cause. Both *Phytophthora* and mycoplasma-like organisms have been identified as the agents associated with the decline of pear and apple trees, and in Germany similar organisms have been detected in *A. glutinosa*.

The primary cause(s) of die-back in alder trees is unclear. In order for it to be identified and any necessary remedial steps to be undertaken, the locality of healthy and declining trees is required. This will enable further work to be carried out in target areas.

It would aid the work of this department if members of the BSBI would complete and return the questionnaire enclosed with this issue. All respondents will be acknowledged.

JACQUELINE A. TRIGWELL, Ecology Research Group, Canterbury Christ Church College, CANTERBURY, Kent, CT1 1QU

× *FESTULOLIUM BRINKMANII*

I am preparing notes on the above taxon and would be grateful for any information on habitat, location, date of collection and any detailed comments on collected specimens.

JOHN TRIST, 28 High Street, Balsham, CAMBRIDGE CB1 6DJ

R.A. FINCH

Does anyone know the current address of R.A. Finch, author of the *Leontodon* account in Stace's *Hybridisation in the flora of the British Isles*? I would very much like to contact him.

GEOFFREY HALLIDAY, Institute of Environmental and Biological Sciences, Lancaster University,
LANCASTER LA1 4YQ

IVY WANTED

If any member is visiting the Canary Islands, I would be delighted to receive living sprays of ivy from any of the islands **except** Tenerife. Beware of other species naturalised – true *Hedera canariensis* has leathery, matt grey-green, heart-shaped, almost lobeless leaves, and often does not climb.

I would also be grateful for any living shoots to grow on of wild *Hedera* from Algeria, preferably from the east and from a low altitude. Postal costs will be refunded on request.

ALISON RUTHERFORD, 19 South King Street, HELENSBURGH, Dunbartonshire G84 7DU

RESEARCH AND TRAVEL GRANTS

Full details of sources of several grants including the Botanical Research Fund, the Warburg Memorial Fund, the British Ecological Society Small Grants Scheme, the Pat Brenan Memorial Fund and the Oleg Polunin Memorial Fund, were given in *BSBI News* 65: 49-51 and readers are advised to consult this when seeking grants.

EDITOR

BOOK NOTES

NEW BOOK REVIEW EDITOR

John Edmondson has retired as *Watsonia* book reviews Hon. Editor. Chris Preston has volunteered to take over from January 1st 1995.

Correspondence and new books for review should now be sent to Mr C.D. Preston, ITE, Monks Wood, Abbots Ripton, Huntingdon PE17 2LS

EDITOR

CHANNEL ISLANDS PLANT LORE

By Brian Bonnard

Brian has written a fascinating account of herbal remedies, folk lore and legends, superstitions and beliefs in the Channel Islands. This 70 page paperback, copiously illustrated with old woodcuts, costs £4.95 if you can find it in the shops or £5.40 (including p & p) direct from Brian at The Twins, Le Petit Val, Alderney, Channel Islands GY9 3UU.

EDITOR

FLORA OF FLINTSHIRE: LIST OF CORRECTIONS

A List of Corrections to *Flora of Flintshire* by Goronwy Wynne is available free of charge. To obtain a copy please send a stamped, self-addressed envelope to: Gee & Son, Publishers, Chapel Street, DENBIGH, Clwyd LL16 3SW.

GORONWY WYNNE, Gwylfa, Licswm, HOLYWELL, Clwyd CH8 8NQ

OBITUARY NOTES

Recent years have taken a heavy toll of BSBI members, probably reflecting the top-heavy age structure of British botanists. (My own observations suggest that Irish botanists are a bit younger.) To keep members informed, this new series of Notes will be analogous to the Book Notes already included in *BSBI News*. I shall be grateful to receive news of deceased members, especially with an offer to write an Obituary.

The next issue of *Watsonia* (20(3), March 1995) will carry Obituaries of Dick David, Eric Edees, Kathleen Hollick, Guy Messenger and Sir George Taylor. Obituaries of the following will appear in *Watsonia* 20(4):

Dorothy Green: worked 1978-89 as database manager at the Biological Records Centre, Monks Wood. Although not a BSBI member, she was involved with collating data for the Society, especially for the maps used in BSBI Handbooks.

Leonard Livermore: a BSBI member since 1974 and author (with his wife, Pat Livermore) of *Flowering plants and ferns of North Lancashire* (1987). An industrial chemist by profession, he was a keen botanist, horticulturist and conservationist, with a special interest in his native Lancashire.

Professor David Webb: a BSBI member since 1848, and Honorary Member of the Society and President (1890-92). Professor Webb, who was 82 when tragically killed in a car accident, was one of our most distinguished members, an internationally respected figure most famous as an editor of *Flora Europaea* and as an expert on the genus *Saxifraga*. From his base in Trinity College, Dublin, he dominated Irish floristic botany for some 50 years, as Robert Lloyd Praeger had the previous 50 years. David Webb was the driving force behind the BSBI's Irish operations in the 1950s during fieldwork for the *Atlas of the British Flora*. He had a wide knowledge of the Irish flora and was BSBI recorder for several Irish vice-counties at various times, but concentrated his attention on the Galway Bay region. He was the author of *An Irish Flora* (1943, with six editions and a seventh in press) and co-author with Maura Scannell of the *Flora of Connemara and the Burren* (1983).

David and I worked closely on the Irish and European floras for many years, notably preparing the text of *Flora Europaea 1* (ed. 2). I learned much from him during that period and during 1979-81 when I was working at Trinity College, Dublin. Remarkably, we had both been taught biology (40 years apart, I hasten to add) by the late Percy Chapman at Charterhouse. David possessed astonishing intellect, breadth of learning and wit, and his civilised Irish hospitality and love of good food, wine, companionship and conversation are legendary. His will be a hard act for the rest of us to follow.

JOHN R. AKEROYD, (Obituaries Editor, *Watsonia*), Lawn Cottage, Fonthill Gifford, TISBURY, Wilts SP3 6SG

REPORTS OF FIELD MEETINGS – 1994

Reports of Field Meetings are edited by, and should be sent to, Dr B.S. Rushton, Dept. of Biological and Biomedical Sciences, University of Ulster, Coleraine, Co Londonderry, N. Ireland BT52 1SA.

ENGLAND

THE LIZARD, WEST CORNWALL (v.c. 1a). 20th-22nd MAY [3]

A rare-plant meeting always attracts a fair number of members and this meeting on The Lizard was to be no exception. Though the original notice had suggested a limit of twelve it proved impossible to keep to this and a group of 15 were eventually to gather on the Friday evening for a preliminary discussion. Andrew Byfield, at present working in Turkey, had kindly made his maps and notes on the distribution of the two rare rushes, *Juncus capitatus* (Dwarf Rush) and *Juncus pygmaeus* (Pigmy Rush), available to us through the helpful offices of David Pearman. These proved invaluable.

Dr D.E. Coombe arrived early, on the Thursday, and a small group of us who had done the same thing, had a splendid day with him as leader, visiting two special sites for *Juncus capitatus*, and listing other plants at the same time. On this day a visit to the tiny hamlet of Rosuic was particularly informative as it was the site, formerly, of a very ancient Cornish Elm, *Ulmus minor* subsp. *angustifolia*. A search around Rosuic Farm revealed at least two surviving trees, this despite the ravages of Dutch Elm disease.

The weather was not exactly kind to us and many of the heath tracks that we searched in the hope of finding any evidence of *Juncus pygmaeus* proved to be still very deep in water. This annual rush enters its period of rapid growth only when water levels start to decrease. This effect was noticed most of all by a smaller second group who attended a preliminary survey over the previous weekend. They did not see *Juncus pygmaeus* at all. Their observations, however, were extremely useful and it was a pleasure to walk over one of the old tracks during this weekend and see *Ranunculus tripartitus* (Three-lobed Crowfoot) both in abundance and in full flower.

The choice of weekend for such a meeting was very difficult. *Juncus capitatus* was at its very best over both of the chosen sessions – a fortnight later there was hardly plant to be seen! – and it was safely recorded in 13 sites, the number of plants at each site varying from just four to over 200, and even more at one favoured locality. Five new sites were added to the JNCC database. In many instances, other species were recorded at the same time – *Allium schoenoprasum* (Chives), *Herniaria ciliolata* (Fringed Rupturewort), *Isoetes histrix* (Land Quillwort), *Mimartia verna* (Spring Sandwort), *Moenchia erecta* (Upright Chickweed), and such clovers as *Trifolium bocconei* (Twin-headed Clover), *T. occidentale* (Western Clover), *T. ornithopodioides* (Bird's-foot Clover),

T. strictum (Knotted Clover) and *T. subterraneum* (Subterranean Clover), with the Upright Clover, *T. strictum*, having a veritable population explosion!

Juncus pygmaeus was to be a different story. 22 sites for this Lizard-endemic species are on record, but it was re-found at only one during the May meetings, when just six flowering plants were seen. The need for further investigation was clear and a few of us continued the search into June and July. Though not all sites were revisited, the major number were and the result gives cause for concern. Just FOUR sites were still extant: in two of these the number of plants was two and eight, in the third it was 200+, but in the fourth there were literally thousands – a reminder of populations as they used to be. The factors that have allowed *Juncus pygmaeus* to persist in such high numbers in this fourth site would seem to merit some investigation when one considers this drastic decline in both localities and numbers since 1950-1960!

R.J. MURPHY

BROXBOURNE WOODS, HERTFORDSHIRE (v.c. 20). 11th JUNE [9]

Perhaps this meeting was in too much competition with the superior attractions of Beachy Head, but only five people turned out for what was a good day in two contrasting habitats.

The first half of the day was spent at Broxbourne Wood itself, a publicly owned woodland, part of the much larger woodland complex known by the generic name 'Broxbourne Woods' in south-east Herts. Here we explored large clearings which have been maintained since a plantation exercise on old oak/hornbeam wood-pasture failed. The vegetation is varied, ranging from highly acidic, with remnants of former heath, through to quite calcareous, especially where springs arise. Nothing specially rare was found, but the species included nine sedges, with *Carex pallescens* (Pale Sedge), *C. pilulifera* (Pill Sedge) being specially notable. Other plants included the semi-aquatic form of *Juncus bulbosus* (Bulbous Rush), a small patch of *Montia fontana* (Blinks), good stands of *Melampyrum pratense* (Common Cow-wheat), and such unlikely bedfellows as *Eupatorium cannabinum* (Hemp-agrimony), *Sanicula europaea* (Sanicle), *Hypericum humifusum* (Trailing St John's-wort) and *Agrostis vinealis* (Brown Bent).

A contrasting site was turned to after lunch when the party visited the North Metropolitan Pit at Cheshunt, in the Lea Valley. Here, once past the somewhat seedy surrounds of Cheshunt station, the mature gravel pit has some special, if well-manicured interest. A well-known fly-ash dump, now supporting scrub birch/alder/willow woodland is also known for its orchids. We were privileged to see fine stands of *Dactylorhiza incarnata* (Early Marsh-orchid) (mostly what appeared to be subsp. *pulchella*, along with many *D. praetermissa* (Southern Marsh-orchid) and some *D. fuchsii* (Common Spotted-orchid). The presence of hybrid swarms with particularly *D. fuchsii* × *D. praetermissa* was also evident. Elsewhere around the pit, the odd open patch amongst lakeside willows showed us *Typha angustifolia* (Lesser Bulrush), *Rorippa amphibia* (Great Yellow-cress), etc., while the aquatic flora included large quantities of *Potamogeton friesii* (Flat-stalked Pondweed), as well as *Zannichellia palustris* (Horned Pondweed).

T.J. JAMES

BUDE, EAST CORNWALL (v.c. 2). 17th-19th JUNE [22]

14 members attended this third BSBI meeting in the Bude area of Cornwall. As on previous occasions, Tim and Sandy Dingle made their home available to us for the evening meetings and their kindness and hospitality were much appreciated.

Our aim was to add to the number of species recorded in the various tetrads and to work through that part of Cornwall that is v.c. 4.

The effort that the group put into this meeting made it highly successful. Of the 21 species of *Potamogeton* in Great Britain, only eight occur in Cornwall and four were found in the remnants of the Bude Canal and nearby ponds: *Potamogeton berchtoldii* (Small Pondweed), *P. crispus* (Curled Pondweed), *P. pusillus* (Lesser Pondweed) and *P. trichoides* (Hairlike Pondweed).

Culm measure grasslands were visited. These may be seen only in the north-east and those recording in them were rewarded with fine stands of *Cirsium dissectum* (Meadow Thistle) and *Carum verticillatum* (Whorled Caraway). Our thanks are extended both to Tim Dingle who organised this part of the meeting and to the various owners who allowed access.

Botrychium lunaria (Moonwort) and *Hymenophyllum tunbrigense* (Tunbridge Filmy-fern) were seen in new sites and a second v.c. 2 record was made for the rather attractive alien, *Cardamine raphanifolia* (Greater Cuckooflower), ably illustrated on the front cover of *BSBI News* 28 by Keith Spurgin. The hybrid horsetail, *Equisetum* × *litorale* (*E. fluviatile* × *E. arvense*) (Shore Horsetail), had been recorded during last year's meeting and was seen again at this. It now has a number of scattered stations throughout the county and may prove to be quite common here.

Taraxacum faeroense and *T. nordstedtii* were observed, as were various brambles, *Rubus cornubiensis*, *R. dumnoniensis*, *R. leyanus*, *R. longithyriger*, *R. rubritinctus* and the more widespread *R. ulmifolius*. Another bramble found, an attractive mauve-flowered member of the Section *Corylifolii*, may well turn out to be the long-lost *Rubus nemorosus*.

The meeting ended with usual Cornish cream tea, but perhaps the real highlight occurred on Saturday evening when one keen young member, anxious for help in identification, produced sedge after sedge from a seemingly bottomless bag – he had been collecting on the moors!

R. J. MURPHY

MISSION TRAINING AREA, NOTTINGHAMSHIRE (v.c. 56). 18th JUNE [14]

Mission is the most northerly parish in Notts. and the site visited is situated east of the village. This Ministry of Defence training area is an original remnant of the River Idle valley grazing meadows, bounded by open ditches, the remainder having long since been improved. The area is now very dry due to the Idle pumps draining scheme lowering the water table, but some of the ditches still have standing water. The vegetation has become rank and scrubby in places due to lack of traditional management.

A total of ten participants collected at the designated parking area, eager to explore this under-recorded, and potentially interesting site. They were split into four groups to look at different strips as defined by the three major cross ditches, with good weather offering encouragement. The southern boundary ditch by Levels Lane (at only 1 m above sea level) proved interesting with notable plants including *Baldellia ranunculoides* (Lesser Water-plantain), *Callitriche obtusangula* (Blunt-fruited Water-Starwort), *Groenlandia densa* (Opposite-leaved Pondweed) and *Zannichellia palustris* (Horned Pondweed) in large amounts, other aquatics including *Ranunculus trichophyllus* (Thread-leaved Water-crowfoot) and *Veronica catenata* (Pink Water-speedwell). *Juncus subnodulosus* (Blunt-flowered Rush) and *Valeriana dioica* (Marsh Valerian) grew on the banks.

Many of the interior ditches were dry, but had evidently held some water overwinter. *Eleogiton fluitans* (Floating Club-rush) turned up in two places, *Carex pseudocyperus* (Cyperus Sedge) in one, but *Veronica scutellata* (Marsh Speedwell), *Myosotis laxa* subsp. *caespitosa* (Tufted Forget-me-not) and *Myosoton aquaticum* (Water Chickweed) were more widely distributed.

The abundance of *Calamagrostis canescens* (Purple Small-reed) was impressive showing sheets of waving purple flower heads, with the odd clonal patch of pale straw colour. Other plants in the grassy fen and associated damp hollows were *Lysimachia vulgaris* (Yellow Loosestrife) (widespread), *Achillea ptarmica* (Sneezewort), *Carex disticha* (Brown Sedge) and *Eupatorium cannabinum* (Hemp-agrimony), with *Juncus acutiflorus* (Sharp-flowered Rush) and *Hydrocotyle vulgaris* (Marsh Pennywort) in more acid areas. A good species for Notts., *Galium uliginosum* (Fen

Bedstraw), turned up in one place, with *Thalictrum flavum* (Common Meadow-rue) surprisingly scarce.

Under the thicker *Salix* scrub (including *S. triandra* (Almond Willow)), *Listera ovata* (Common Twayblade) was abundant in damper areas with the general fen-meadow species, and there were good patches of *Populus tremula* (Aspen). In drier *Betula* (Birch)/*Salix* scrub *Dryopteris carthusiana* (Narrow Buckler-fern) was locally abundant, with *D. affinis* (Scaly Male-fern) in one place, and a good area of *Ceratocarpus claviculata* (Climbing Corydalis).

On more disturbed ground, a surfaced track produced *Filago vulgaris* (Common Cudweed) and *Lepidium campestre* (Field Pepperwort), with *Barbarea intermedia* (Medium-flowered Winter-cress) and *Verbascum thapsus* (Great Mullein) in two other widely separated areas.

Altogether 218 species (including four species of *Rubus* (Brambles)) were recorded, but most of the notable species were in small quantity.

I wish to thank the Defence Land Agent for issuing the appropriate licence, the administration fee having been waived.

D.C. WOOD

SANDWICH, EAST KENT (v.c. 15), 19th JUNE [16]

16 members and friends met in the car park in the centre of Sandwich in fine sunny weather and planned to walk out to the coast via the river bank and sand dunes where lunch would be taken. With *Apium graveolens* (Wild Celery) and *Lepidium latifolium* (Dittander) at the edge of the car park a good start was made. As we moved on along the river bank almost every step brought a new plant and within fifteen minutes or so what had started as a group of mainly total strangers had transformed into a party all busy discussing their finds on Christian name terms. *Lotus glaber* (Narrow-leaved Bird's-foot-trefoil) and *Lathyrus nissolia* (Grass Vetchling) provided some fine colour before we reached the start of the fixed sand dunes where everybody was soon on their hands and knees to explore the numerous small plants there. This area was rich in grasses such as *Vulpia ciliata* subsp. *ambigua* (Bearded Fescue) and some twelve species of clover were recorded including *Trifolium glomeratum* (Clustered Clover), *T. suffocatum* (Suffocated Clover), *T. scabrum* (Rough Clover) and *T. subterraneum* (Subterranean Clover).

Because of the numbers of species of plants that had been found progress over the ground had been rather slow so lunch was taken at 2.30 p.m. by a damp hollow but still quite some distance from the coast. *Berula erecta* (Lesser Water-parsnip) and *Dactylorhiza praetermissa* (Southern Marsh-orchid) were among the many plants we admired here before we pushed on to the coast noting *Juncus acutus* (Sharp Rush) and *Anacamptis pyramidalis* (Pyramidal Orchid) on the way.

On the shore we searched for and found a fine clump of *Tetragonolobus maritimus* (Dragon's-teeth) which had been discovered a week earlier, new to that part of the Kent coast. A fourth species of *Vulpia*, *V. fasciculata* (Dune Fescue) was in abundance on the dunes; homage was paid to the numerous *Himantoglossum hircinum* (Lizard Orchid) and the few fresh *Orobancha caryophyllacea* (Bedstraw Broomrape) before a start was made on the walk back.

New plants continued to be found and on reaching the North Stream a stop was made whilst some aquatic plants were, with varying success and some amusement to the local people, fished out of the water with a grapnel. These included *Ceratophyllum demersum* (Rigid Hornwort), *Elodea nuttallii* (Nuttall's Waterweed), *Potamogeton perfoliatus* (Perfoliate Pondweed), *P. friesii* (Flat-stalked Pondweed) and *P. crispus* (Curled Pondweed). We eventually got back to our cars some seven hours after we had started out and thankfully the ice-cream vendor was still doing business.

I would like to put on record that it was a pleasure to lead this meeting; everyone without exception was friendly, enthusiastic and keen to learn and willing to help others with points of identification that they already knew or had picked up on the day. It was also particularly pleasing to see a good number of new and younger members and this all bodes well for the future. However,

what really made my day was when struggling to remember English names for some of the plants I was told that it would be preferable to be told the scientific names. Even better for the future!

E G PHILP

LYTHAM ST ANNES, LANCASHIRE (v.c. 60). 25th JUNE [17]

18 members and friends met at Fairhaven to explore three areas of sand dunes and a small saltmarsh.

The Lancashire coast is well known for its sand dune flora but the coast of the River Ribble estuary has been largely built up during the last 50 years with only fragments of dune habitat surviving. Nevertheless, most of the specialities of the region are doing well, often colonising areas where sand removal (creating damp slacks) has occurred. Good examples of such species seen were *Pyrola rotundifolia* (Round-leaved Wintergreen), *Epipactis palustris* (Marsh Helleborine), *E. leptochila* var. *duensis* (Narrow-lipped Helleborine), *Ophrys apifera* (Bee Orchid) and *Dactylorhiza praetermissa* (Southern Marsh-orchid), this latter a new record for the sand dunes. In mobile and fore dunes, extensively disturbed a few years ago with alterations to a sewage outfall, a fine stand of *Echium vulgare* (Viper's-bugloss) was seen and the first seedlings of *Glaucium flavum* (Yellow Horned-poppy) that appeared in 1993 were in flower.

At Grannies Bay the present saltmarsh only started to form in the 1960s. An early coloniser with a single plant was *Limonium vulgare* (Common Sea-lavender), not previously recorded from the Ribble estuary. The plant has now extended to a patch 2-3 m in diameter but being a single clone is completely sterile. Nevertheless it was pleasing to see another group of 2-3 plants has appeared about 50 m from the original colony.

The Lancashire dunes are rich in hybrids, some of which are especially noteworthy. Members were particularly pleased to see *Juncus balticus* × *J. inflexus*. This was first discovered in 1966 (Stace, C.A. 1972. *Watsonia* 9: 1-11) and spread into a large robust colony several metres in diameter. Now there are two small colonies which are probably fragments of the original one possibly decimated by the drying out of the slack in which the hybrid occurs on several occasions in the intervening years. Also seen on fixed dunes was a splendid plant of *Rumex crispus* × *R. obtusifolius*.

The occurrence of alien species on the Lancashire coast are well documented. One of the earliest of these was *Euphorbia cyparissias* (Cypress Spurge) seen abundantly in a field near Lytham vicarage in 1897 (Wheldon, J.A. & Wilson, A. 1907. *The Flora of West Lancashire*. Liverpool). It is now abundant on the sand dunes not far from the original locality as well as at one or two other places on the sand dunes but otherwise not established in the vice-county. Members were interested and puzzled by the range of garden plants that are established on the dunes including such attractive plants as *Rosa multiflora* (Many-flowered Rose) and *Philadelphus microphyllus* hybrid (Mock-orange). A fine colony of *Briza maxima* (Greater Quaking-grass) was also seen which was new to the dunes and only the second record for the vice-county.

Grasses were at their best and *Festuca arenaria* (Rush-leaved Fescue) was distinguished from the much more common and widespread *F. rubra* subsp. *rubra* (Red Fescue). Also noted was *Koeleria macrantha* (Crested Hair-grass) which was only recently noted from the sand dunes. It is believed both species are more widespread on the sand dunes than records suggest.

E.F. GREENWOOD

YORKSHIRE DALES (v.c. 64). 2nd-3rd JULY [25]

The first task of the meeting was to search seven known sites in the Malham area for *Polygala amarella* (Dwarf Milkwort), in an attempt to help with information for updating the *Red Data Book*. Armed with grid references, descriptions and photographs of the plant, the 21 people present were conveniently divided into groups of three and despatched to their various destinations. The success

rate was depressingly low. Reasons for the apparent decline are not yet clear. Perhaps more site information was needed. Perhaps the plant had been misidentified in the past. (There were plenty of small specimens of *Polygala vulgaris* (Common Milkwort) about.) Perhaps it is significant that the two sites where the plant has been seen this year are both ungrazed except by rabbits. However, the whole party was able to see the Dwarf Milkwort at one of these sites later in the day.

During the lunch break, maps of the Malham Tarn area and information on the hydrosere, showing the vegetation succession from open water through sedge swamp, rich fen, poor fen to the climax community of raised bog, were perused. In the course of the visit, at least twelve species of sedge were seen, including *Carex diandra* (Lesser Tussock-sedge) and *C. appropinquata* (Fibrous Tussock-sedge) growing conveniently together for comparison. There were six willows (*Salix* spp.) plus their hybrid offspring whose identities were not pursued on this occasion. For those who prefer pretty flowers, *Dactylorhiza purpurella* (Northern Marsh-orchid) and *D. incarnata* subsp. *pulchella* (Early Marsh-orchid) glowed between the sedges and *Trollius europaeus* (Globeflower) is always a joy. On the dome of the bog, the 'berries' Bilberry (*Vaccinium myrtillus*), Cowberry (*V. vitis-idaea*), Cranberry (*V. oxycoccus*) and Cloudberry (*Rubus chamaemorus*) struggled for dominance with the Heather (*Calluna vulgaris*). *Andromeda polifolia* (Bog-rosemary) had finished flowering. We are extremely grateful to Kingsley Iball, Warden of Malham Tarn Field Centre, for allowing us access to the estate.

Those with stamina remaining moved back towards Malham village, stopping en route to look at a small area of limestone pavement, which the farmer, Val Caton, had recently fenced off from sheep at the request of English Nature. The benefits to the grykes were already showing in the form of *Actaea spicata* (Baneberry) in fruit and *Melica nutans* (Mountain Melick). We appreciated having Mr Caton's permission to visit.

On Sunday, people were again dispersed in groups to fill gaps in the recording of tetrads on Ingleborough and in Ribblesdale. *Scrophularia umbrosa* (Green Figwort) was discovered by the river, not yet flowering. One group found *Alchemilla glaucescens* (Lady's-mantle) in a new site and there were two putative sightings of *A. minima*. *Arenaria norvegica* subsp. *anglica* (English Sandwort) was in fine form and the leaves of *Viola rupestris* (Teesdale Violet) were seen. In mid-afternoon it was a welcome relief from the unaccustomed sultry heat to sit in the shade of a sycamore and spend a good hour identifying puzzle plants. Afterwards members dispersed in several directions to fill gaps in their personal botanical experience.

The leader acknowledges with gratitude the contribution to the education of the party made by Mike Porter and Jeremy Roberts and, also, the contribution of all participants to the Mid-west Yorkshire plant recording scheme.

PHYL ABBOTT

DARENT VALLEY, W KENT (v.c.16). 16th JULY [30]

A joint meeting with the Wild Flower Society with an attendance of 25, convened at Otford station and proceeded to Otford Palace Meadow. There, two hybrid docks drew attention – *Rumex conglomeratus* × *R. obtusifolius* (*R. × abortivus*) and *R. crispus* × *R. obtusifolius* (*R. × pratensis*). Common Bistort, *Persicaria bistorta*, was flourishing on the site of what is supposed to be the long-abandoned palace gardens, now a meadow with much × *Festulohium loliaceum* (Hybrid Fescue). On the nearby roadside, some scruffy Reflexed Saltmarsh-grass (*Puccinellia distans*) betrayed the effect of deicing salt. Pure serendipity, however, led us to park where Knotted Hedge-parsley (*Torilis nodosa*) grew as a pavement weed.

The party then moved to Lullingstone Park. An area near the visitor centre had been set to grass in recent years, and clumps of Hungarian Brome (*Bromopsis inermis*) were the result. *Festuca rubra* subsp. *megastachys* (Red Fescue) was also present, and an expanse of its flattened culms provided our luncheon site. In the park were also Orange Mullein (*Verhascum phlomooides*) and *Rosa micrantha* (Small-flowered Sweet-briar), but the highlight was undoubtedly a valley bank with a fine

chalk flora including tens of thousands of Pyramidal Orchids (*Anacamptis pyramidalis*) and a rare West Kent appearance of Lizard Orchid (*Himantoglossum hircinum*). The latter was first observed in 1993, and as we saw several spikes, it is to be hoped that this colony will prove more persistent than previous sporadic appearances in this vice-county. Also present were several plants of the hybrid between Lady's and Hedge Bedstraws (*Galium mollugo* × *G. verum*, *G. × pomeranicum*).

After a brief stop to view an abundance of the introduced Fodder Vetch (*Vicia villosa*) on the banks of the M25, the next location to be studied was at the fringes of Fort Halstead. Our numbers were then depleted by the unfortunate collapse of one of our party from heat. We were offered assistance from the military, although we must still have proved suspicious enough to warrant being shadowed by a security patrol on the other side of the Fort's fence.

The principal interest of the area lay in the colonisation of a chalk hillside following removal of trees blown down in 1987. Although *Buddleja* had become fairly dominant, there was also Nettle-leaved Bellflower (*Campanula trachelium*), Basil Thyme (*Clinopodium acinos*), Deadly Nightshade (*Atropa belladonna*) and two species of mullein (*Verbascum thapsus*, Great Mullein and *V. lychnitis*, White Mullein). A cinquefoil with mixed 4- and 5-petaled flowers was discovered which a subsequent visit confirmed to be sterile and, as then suggested, *Potentilla* × *mixta* (Hybrid Cinquefoil).

Particular attention was given to the willowherbs of this area, distinguishing first between the species: Great (*Epilobium hirsutum*), Hoary (*E. parviflorum*), Broad-leaved (*E. montanum*), Square-stalked (*E. tetragonum*) and American (*E. ciliatum*) Willowherbs. Having done so, we then examined a large population of hybrids. The extent of hybridisation was far beyond what might normally be expected in a mixed population. It was also notable that *E. ciliatum* had originally been abundant, but was now primarily represented in an abundance of *E. parviflorum* × *E. ciliatum*.

The following crosses were seen: *E. hirsutum* / *E. montanum*, *E. hirsutum* × *E. parviflorum*, *E. parviflorum* × *E. montanum*, *E. parviflorum* × *E. ciliatum*. That which I identified as *E. hirsutum* × *E. ciliatum* (which has been confirmed from here) was shown by subsequent growth to be a further plant of *E. hirsutum* × *E. montanum*. The party then continued this study at the grounds of Cromlix in Halstead, by kind permission of Peter Horner. Strips of orchard ground had been left deliberately unmown or otherwise treated in order to meet our interests. The quantity of *E. tetragonum* × *E. ciliatum* which resulted was such as to suggest that the usual weedkilling regime gave the hybrid some selective advantage. We also noted *E. montanum* × *E. ciliatum* plus (an escape from willowherb 'cultivation' by the leader) *E. lanceolatum* (Spear-leaved Willowherb).

To Sarah Kitchener went the thanks of the meeting for provision of a splendid tea, so concluding the day.

G. KITCHENER

CHAILEY COMMON, EAST SUSSEX (v.c. 14). 16th JULY [31]

This joint meeting of the BSBI and the Sussex Botanical Recording Society was specially for the study of *Rubus*, and the 14 who attended for part or all of the day were for the most part veterans of previous occasions devoted to this group. Unusually, though, this one had originated in a request to the Leader from the Sussex Society for an introduction to *Rubus* for its members, and the venue had been chosen with that primarily in mind. Previously known to present-day batologists as a locality for a widespread undescribed Sussex (and Surrey) bramble, '*R. orbifolius*' sensu W.C.R. Watson – which was immediately much in evidence – Chailey Common proved in the event to have been an unfortunate choice, too long an existence as open heath having allowed in too few species to satisfy the appetites of the cognoscenti, even though at the same time they constituted a suitably limited number for the beginners to get to grips with.

A move after lunch to the neighbouring Lane End Common proved more productive, enabling a wider range of species (and Series) to be demonstrated and yielding two whose identity succeeded in defeating the experts. In that locality too, however, the party quickly began to run out of novelties

and, in the hope of more, it was decided to try farther afield at Piltown Common. Once again though the finds there proved disappointing: this is not a part of this otherwise botanically rich county, it would seem, that is capable of producing much in the way of the less familiar species. Fortunately those *Rubus* specialists who had come from far away took the opportunity to explore Sussex more widely and the occasion thus served as a focus for much useful work over and above what it was arranged for more specifically.

D.E. ALLEN

BRIDPORT, WEST DORSET (v.c. 9). 23rd-24th JULY [33]

The aim of this meeting was to record from a number of unexplored tetrads for the projected *Flora of Dorset*. Despite a six-week drought and unusually hot conditions, a great deal was achieved. Nearly 4000 records were made from 24 tetrads, eleven of which had no recent information.

17 botanists arrived in good time on the 23rd, and small groups were allotted two tetrads for the day. At 4 p.m. all met up at the Traveller's Rest Inn for a cream tea, followed by an identification session and briefing.

The next day the number of participants increased to 24, and the morning was spent covering more tetrads. *Oenanthe pimpinelloides* (Corky-fruited Water-dropwort) was found in many of these and puzzled some visitors. The following is a selection of excellent records made of native plants: *Carex strigosa* (Thin-spiked Wood-sedge) in Pilsdon churchyard, *Centaureum tenuiflorum* (Slender Centaury) in a new site, *Chrysosplenium alternifolium* (Alternate-leaved Golden-saxifrage) in deep shade, *Epilobium lanceolatum* (Spear-leaved Willowherb) on a wall and *Scirpus sylvaticus* (Wood Club-rush) in two places. The aliens found included *Berberis vulgaris* (Barberry), *Campanula poscharskyana* (Trailing Bellflower) by a stream far from houses, *Nymphoides peltata* (Fringed Water-lily), *Persicaria amplexicaulis* (Red Bistort) and *P. wallichii* (Himalayan Knotweed). A strange grass from near Cogden Farm was provisionally named as *Festuca gigantea* × *F. rubra* (Fescues), but this needs confirmation.

After a sandwich lunch at West Bay Station, where trains have long ceased to run, David Pearman led the party up a steep path to see *Chenopodium vulvaria* (Stinking Goosefoot). Although thousands were seen last year, only a few could be found, perhaps germination was delayed by the dry summer. *Phleum arenarium* (Sand Cat's-tail) and *Torilis nodosa* (Knotted Hedge-parsley) were also found here. Descending to West Bay, which was crowded with holidaymakers, we were shown *Alopecurus bulbosus* (Bulbous Foxtail) and *Puccinellia rupestris* (Stiff Saltmarsh-grass) growing under a roundabout in a temporary fairground. Next we saw a splendid colony of *Frankenia laevis* (Sea-heath) and *Limonium hyblaenum* (Rottingdean Sea-lavender) on low cliffs – presumably both introduced, but well-established and very colourful. Nearby were *Parapholis strigosa* (Hard-grass) and *P. incurva* (Curved Hard-grass), and the seasons first Clouded Yellow butterfly flew by. After a longish trek over West Cliff where *Hyoscyamus niger* (Henbane) and *Silybum marianum* (Milk Thistle) were frequent we reached the large colony of white-flowered *Centaureum tenuiflorum* (Slender Centaury) near Eype. The meeting broke up at tea-time.

H.J.M. BOWEN & D.A. PEARMAN

GIBRALTAR POINT NNR, NORTH LINCS. (v.c. 54) 6th AUGUST [38a]

23 BSBI members (including leaders Rene Weston, County Recorder and Marson Peet – author of the *Gibraltar Point Check List*) met in the small car park adjacent to the Field Station Gibraltar Point NNR, just south of Skegness is managed by the Lincolnshire Trust for Nature Conservation. Lincolnshire County Council owns 367 ha and East Lindsey District Council 61 ha. The earliest declaration as a Nature Reserve and SSSI was in 1949 but the reserve has now attained National

Status. Since the 1825 OS 1 inch map there has been extensive accretion of sand and mud flats and all stages of colonisation and stabilisation of sand dune and salt marsh can be seen. The leaders very much appreciated the hospitality extended by the Lincs. Trust for car parking facilities and refreshments.

Whilst waiting for the last arrivals the party explored the car park finding *Marrubium vulgare* (White Horehound) and *Hyoscyamus niger* (Henbane) both in abundance in the newly disturbed sand. *Parapholis incurva* (Curved Hard-grass) was growing both on the tarmac edges and on gravel and grassy areas of the car park. *Parapholis incurva* is an old record here (1957, at its then most northerly site in Great Britain) but in the last few years has colonised freely on the newly accreted sandy areas nearer the sea. Before moving on and throughout the walk Marson Peet gave accounts of the local history of the Reserve and its present day management.

One of the first plants to be seen near the Field Station was *Suaeda vera* (Shrubby Sea-blite) – a very large bush and for many years the only one, recorded in 1927. This species is now increasing, and several young plants were found. The weather was perfect and the party walked across the ‘old’ saltmarsh where extensive carpets of *Elytrigia atherica* (Sea Couch), *Atriplex portulacoides* (Sea-puslane) and *Seriphidium maritima* (Wormwood) gave way to a large expanse of *Limonium vulgare* (Common Sea-lavender), in bloom on the wetter lower marsh. Small patches of *Limonium binervosum* (Rock Sea-lavender) and *Centaurium pulchellum* (Lesser Centaury) were noted, as were *Parapholis strigosa* (Hard-grass), *Juncus gerardii* (Saltmarsh Rush), *Spartina anglica* (Common Cord-grass), *Plantago maritima* (Sea Plantain), *Carex distans* (Distant Sedge) and *C. otrubae* (False Fox-sedge). The old saltmarsh is protected from the sea by a high dune system traversed by an old sleeper track through very dense scrub of *Hippophae rhamnoides* (Sea-buckthorn) mixed with *Sambucus* sp. (Elder) and *Rubus caesius* (Dewberry). On the seaward side an extensive new saltmarsh with *Salicornia* sp. (Glassworts) and very divergent forms of *Suaeda maritima* (Annual Sea-blite) was crossed to reach the new sand dune accretion. Carpets of *Frankenia laevis* (Sea-heath), *Limonium binervosum* – both in full flower – and the dying plants of the early flowering, *Parapholis incurva* were found. *Frankenia laevis* was first recorded at Gibraltar Point in 1973 – a mere three plants, but the 1993 count was over 5000 and it is still spreading. We relaxed for lunch amidst a jewelled carpet of *Frankenia* and *Limonium* and tried to sort out the species of *Salicornia*. Strikingly, nearer the sea, *Atriplex laciniata* (Frosted Orache), with very obvious pink stems, *A. littoralis* (Common-leaved Orache) and *Salsola kali* (Saltwort) were abundant as were large swards of the dune colonisers *Elytrigia juncea* (Sand Couch), *Leymus arenarius* (Lyme-grass) and *Ammophila arenaria* (Marram).

The party finally returned over the old series of dunes north of the point via the fresh water marshes and brackish ponds. Stands of *Oenanthe lachenalii* (Parsely Water-dropwort) and *Althaea officinalis* (Marsh-mallow) were enjoyed as were *Ranunculus baudotii* (Brackish Water-crowfoot), *Bolboschoenus maritimus* (Sea Club-rush) and *Potamogeton pectinatus* (Fennel Pondweed). *Zannichellia palustris* (Horned Pondweed) (a new record for the Reserve) was found fruiting prolifically. On the final walk back to the Field Station news was gleaned of a crane which had been sighted earlier in the day and the meeting ended with several members departing poste haste to birdwatch with the friendly owner of a large telescope.

On a subsequent visit later in September *Salicornia pusilla* (One-flowered Glasswort), *S. pusilla* × *S. ramosissima*, *S. ramosissima* (Purple Glasswort) and *S. europaea* (Common Glasswort) were recorded on the route taken by the party.

RUTH NICKERSON & IRENE WESTON

THE WASH, SOUTH LINCOLNSHIRE (v.c. 53). 7th AUGUST [38b]

On the Sunday morning 20 members met at Guy's Head lighthouse on the west bank of the River Nene 5 km N of Sutton Bridge. Led by Rene Weston and with local naturalist 'Tub' Davey, also as guide, the party walked north along the Nene bank, stopping to admire an attractive colour form of

Comvolvulus arvensis (Field Bindweed) – pink and white with a deep pink centre to the corolla
Leaving the bank we descended to a drainage ditch to search for *Ruppia cirrhosa* (Spiral Tasselweed). This was soon found but much more ‘fishing’ was undertaken before any fruits with their spiralling peduncles could be seen. The nearby arable field of sugar beet yielded a large number of weed species.

The party proceeded further along the bank which turned north-east and became in effect the sea-wall of the Wash. ‘Tub’ then led members on to the saltmarsh where the most abundant species were *Atriplex portulacoides* (Sea-purslane), *Suaeda maritima* (Annual Sea-blite) showing considerable morphological diversity and *Aster tripolium* (Sea Aster). This is the common form found on most of the South Lincolnshire and Norfolk coasts with only the yellow disc flowers present. *Limonium vulgare* (Common Sea-lavender) which is plentiful at Gibraltar Point was much less frequent here.

Those who had closely followed the leader reached the bare mud zone with little difficulty. One member wearing trainers even managed to keep them clean, whereas the stragglers found themselves having to cross a number of creeks with much slipping and sliding. We noted *Spartina anglica* (Common Cord-grass) among the dominant species *Salicornia ramosissima* (Purple Glasswort). Our leaders then found the plant we had really come to see *Sarcocornia perennis* (Perennial Glasswort). As soon as we had noted the ‘jiz’ a number of other specimens were spotted mainly in the bare mud. Retreating again to the seabank to eat our sandwiches, we admired the view across the Wash to the Norfolk coast.

The second locality of the day was a few kms north-west along the Wash coast near Holbeach St Matthew, where we parked at the remote home of BSBI members Jim and Judy Stobart. The party then walked to explore drainage ditches in this area and were again successful in finding fruiting material of *Ruppia cirrhosa*. However, in other ditches nearby where the leaders had found *Ruppia* to be abundant in the previous year it now proved to be absent due to recent dredging operations.

RUTH RACE

IRELAND

Co. OFFALY (v.c. H18). 12th JUNE [12]

The sole record for *Luzula pallidula* (Fen Wood-rush) in the Republic of Ireland is based on a specimen in the Ulster Museum, Belfast (BEL) labelled Sea Gull Bog, Co. Offaly, collected by Pat Kertland, probably some time in the 1950s (*Irish Botanical News* 4: 26-28). The objective of this meeting was to search Sea Gull Bog and other suitable sites in the hope of rediscovering *Luzula pallidula*. Seven members and the *Luzula* (Wood-rush) authority RNDr Jan Kirschner from the Czech Republic met on a fine day to search the area south east of Tullamore, on what was also the centenary of R. Ll. Praeger’s visit in 1894 (*Irish Naturalists’ Journal* 3: 175).

The precise locations of Sea Gull Bog and Pat Kertland’s original site are still uncertain as the locality is not marked on any of the maps. Enquiries by Keith Lamb failed to reveal any local knowledge of a bog of that name. From Praeger’s description and searches for other bogs in the area, it is probable that it is the bog north of Killeigh (grid reference N/370 210). If so, the bog is now a far cry from the quaking bog ‘feared even by the hardy and experienced cottagers around its margins’ described by Praeger, and has also probably changed much since Pat Kertland visited it. The north and south west sides have been stripped (funded by the European Community), with a rubbish tip on the west side, a belt of pine and birch across the centre, and small scale peat cutting on the south east side. The only relatively intact area on the south side has recently been drained, and will no doubt be stripped soon.

The disturbed margins of the bog provided suitable habitat for *Luzula*, with *L. campestris* (Field Wood-rush), *L. multiflora* subsp. *congesta* (Clustered Wood-rush), *L. multiflora* s.s. (Heath Wood-rush) and a small-flowered form of *L. multiflora* in abundance, but no *L. pallidula*. A

disturbed area of forestry on the south east side again provided suitable but barren habitat for *L. pallidula*, as did the edges of Burnett's Wood. Sadly, *L. pallidula* must therefore currently be regarded as extinct in Ireland having also been lost from its site in Antrim on Lough Neagh.

Of the bog species mentioned for Sea Gull Bog by Praeger most were found, albeit in small quantity and no doubt declining as the bog dries out. *Drosera rotundifolia* (Round-leaved Sundew), *D. longifolia* (Great Sundew), *Trichophorum cespitosum* (Deergrass), *Vaccinium oxycoccos* (Cranberry), *Andromeda polifolia* (Bog-rosemary), *Eriophorum angustifolium* (Common Cottongrass), *E. vaginatum* (Hare's-tail Cottongrass), *Erica tetralix* (Cross-leaved Heath) and *Calluna vulgaris* (Heather) were all recorded. The only sea gulls present were associated with the rubbish tip, and the *Juncus* (Rush) – *Rumex acetosa* (Common Sorrel) – *Holcus lanatus* (Yorkshire-fog) vegetation of the gull colony no longer remains; it is possible that the central birch woodland with some robust stands of *Geranium robertianum* (Herb-Robert) and *Anthoxanthum odoratum* (Sweet Vernal-grass) now occupies the area formerly occupied by the gulls.

Record cards were completed for the areas of the bog searched. Other species of interest seen included *Sorbus hibernica* (Irish Whitebeam), *Catabrosa aquatica* (Whorl-grass) and *Smyrnium olusatrum* (Alexanders). What, if anything, will be left of the bog in 2094?

T. C. G. RICH & K. LAMB

Co. LONGFORD (v.c. H24). 23rd-24th JULY [34]

On Saturday we assembled in Granard to explore the vegetation of the drumlin and podzolic terrain of north Longford. All the cars successfully negotiated the potholes for which the region has become renowned. *Tellima grandiflora* (Fringe-cups) was found lurking nearby in a roadside hedgerow without any obvious explanation for its presence. *Chamerion angustifolium* (Rosebay Willowherb) which is absent from the *Census Catalogue of the Flora of Ireland* (Scannell, M.J.P. & Synnott, D.M., 1987) was seen in abundance. Raised bog containing Cranberry (*Vaccinium oxycoccos*) and Sundew (*Drosera* spp.) and the acid loughs of Gowna, Annagh and Sallagh were visited. *Lobelia dortmanna* (Water Lobelia), in full flower, was spotted at Lough Annagh along the stony shore and in pools along the eastern side. At Lough Sallagh *Sisyrinchium bermudiana* (Blue-eyed-grass) ("looking native?") was plentiful in a wet meadow and *Cicuta virosa* (Cowbane) grew in shallow water. *Salix repens* (Creeping Willow) was confirmed on the shores of the latter two lakes. In the early evening some of the party faithfully followed their navigator south-westwards into H23. Having taken a shortcut, the party crossed an iron bridge across the River Inny (with the sign "no navigation beyond this point") and ended in a field where the large scale curation of species of Poaceae was in progress. Eventually we arrived at the shores of Lough Ree where the ferryman was waiting patiently. We were taken to a nearby island where a guided discovery tour revealed *Carex* × *fulva* (*C. hostiana* × *C. viridula*), apparently in the absence of one of its parents *C. viridula* subsp. *brachyrrhyncha* (Yellow Sedge), some fine specimens of *Rosa agrestis* (Small-leaved Sweet-briar), *Epipactis palustris* (Marsh Helleborine) and a lush meadow with rampant *Lathyrus palustris* (Marsh Pea). As the darkness fell the ferryman's voice summoned us to a delicious meal accompanied by *Vitis vinifera*, at a cottage surrounded by Wilson's Honeysuckle (*Lonicera nitida*).

On Sunday morning we were joined by two more BSBI members – escapees from the Longford festival? The day was spent on the eastern shores of Lough Ree which supported a more calcicole flora. At Saint's Island *Teucrium scordium* (Water Germander) was plentiful on the stony foreshore. Above highwater, *Campanula rotundifolia* (Hairbell), *Rosa agrestis* (previously unreported for the vice-county), *R. pimpinellifolia* (Burnet Rose) and *Rhamnus cathartica* (Buckthorn) were much in evidence. Two species of *Cotoneaster* and *Helleborus foetidus* (Stinking Hellebore) were well-established.

At lunch we were serenaded by a steady rumble of Shannon cruisers across the lake passing Inishboffin. Cashel Lodge yielded many species such as *Teucrium scordium*, *Galium boreale* (Northern Bedstraw), *Oenanthe aquatica* (Fine-leaved Water-dropwort), *Apium inundatum* (Lesser

Marshwort) and *Potamogeton filiformis* (Slender-leaved Pondweed). *Cystopteris fragilis* (Brittle Bladder-fern) and *Vulpia bromoides* (Squirreltail Fescue) grew on the roadway from the pier to the limestone quarry. *Epipactis helleborine* (Broad-leaved Helleborine) (a first vice-county record) and *Melica uniflora* (Wood Melick) were found on the hazel covered slopes, and *Selaginella selaginoides* (Lesser Clubmoss), *Schoenus nigricans* (Black Bog-rush) and *Brachypodium pinnatum* (also a first v.c. record) were found in a damp glade.

As the day came to a close, the pedagogical skills of the leader were sorely tested by an undisciplined group of botanists who were most reluctant to leave the lake shores. A final halt to view a flourishing roadside colony of *Euphorbia* × *pseudovirgata* (*E. esula* × *E. waldsteinii*) (Twiggy Spurge) at the edge of a large 'developed' roadside bog, left us pondering on the pervasive human influence on the changing flora and habitats of the countryside.

D. NASH & S. HOWARD

SCOTLAND

ARDNAMURCHAN, WESTERNESS (v.c. 97). 18th-19th JUNE [15]

A small party assembled on the Friday night in the village hall at Kilchoan to plan the weekend, but the combination of wind, rain and low cloud necessitated a rethink on Saturday with visits to more accessible areas all in NM/4.6.

The first of these, a small area of Jurassic Limestone near the Kilchoan Ferry Pier, sported *Orchis mascula* (Early-purple Orchid) still in flower, together with *Coeloglossum viride* (Frog Orchid) and some 30 fronds of *Botrychium lunaria* (Moonwort). The adjacent saltmarsh showed abundant *Blysmus rufus* (Saltmarsh Flat-sedge) and both *Carex distans* (Distant Sedge) and *C. extensa* (Long-bracted Sedge).

The heathery areas around the former church at Kilmory revealed only a single spike of *Pseudorchis albida* (Small-white Orchid) where there had been a dozen or so in 1990. The rain made it difficult to cross the usually small stream to the shore and under these conditions few records were added. Two members detoured to see the fine stand of *Carex acutiformis* (Lesser Pond-sedge), just inland from Ardtoe Island, before returning to dry out and warm up in the welcome facilities at the village hall, though not before *Festuca pratensis* (Meadow Fescue), another unusual species for the area, had been spotted on a roadside bank.

By contrast the Sunday dawned bright and sunny and we set off to record in the squares around the abandoned crofting community of Glendrian.

The ridges, particularly where the Eucrite breaks down to a gravelly consistency, support frequent *Arctostaphylos uva-ursi* (Bearberry), the procumbent *Juniperus communis* subsp. *alpina* (Juniper) and also *Polygala vulgaris* (Common Milkwort). By comparison *Polygala serpyllifolia* (Heath Milkwort) is ubiquitous on the peaty areas. Localised changes to the rock type and aspect create habitats for *Cirsium heterophyllum* (Melancholy Thistle), *Galium boreale* (Northern Bedstraw) and *Ophioglossum vulgatum* (Adder's-tongue). Between the ridges extensive areas of mire contained occasional patches of *Eriophorum latifolium* (Broad-leaved Cottongrass), scattered plants of *Dactylorhiza incarnata* (Early Marsh-orchid), both pale pink and reddish purple flowers and some distinctive plants which seem to be referable to *Dactylorhiza lapponica* (Lapland Marsh-orchid) – Alf Slack's photographs will hopefully enable experts to confirm or otherwise.

The wetter areas contained plenty of fruiting *Carex lasiocarpa* (Slender Sedge), *Carex limosa* (Bog Sedge) and both *Utricularia minor* (Lesser Bladderwort) and *U. ochroleuca* (Pale Bladderwort), the latter collected for more accurate identification. On our return to the road near Achnaha we were pleased to see four more spikes of *Pseudorchis albida* (Small-white Orchid).

I am very grateful to Mr J.C. Grisewood for permission to visit these areas on part of the Ardnamurchan Estate.

I.R. BONNER

KINTAIL, WESTER ROSS (v.c. 105). 9th-10th JULY [28]

The first day was spent going up Ben Attow in the Kintail range of mountains (owned by the National Trust for Scotland) – an area little explored by botanical parties: did the Kintail hills really have an impoverished flora compared to some other mountains, or was it due merely to lack of survey?

Our party of seven set off in the morning from the Forestry Commission car park at Dorusdain – living off borrowed time as it was meant to be windy and wet by now – to ascend the mountain via Gleann Choinneachain. We hurried relatively quickly through the woodland fragment at the river crossing, partly to spend as much time as possible on the higher slopes and partly to avoid the midges. We noted in passing *Circaea* × *intermedia* (*C. lutetiana* × *C. alpina*) (Upland Enchanter's-nightshade) which is an indicator species of ancient woodland in this part of the world.

The lower slopes of the glen contained many species-rich wet flushes with *Carex hostiana* (Tawny Sedge) and *Saxifraga aizoides* (Yellow Saxifrage); the surrounding grassland also appeared relatively base-rich with *Parnassia palustris* (Grass-of-Parnassus), abundant *Carex pallescens* (Pale Sedge), and the orchids *Pseudorchis albida* (Small-white Orchid), *Gymnadenia conopsea* (Fragrant Orchid) and *Platanthera bifolia* (Lesser Butterfly-orchid). The abundance of *Plantago maritima* (Sea Plantain) away from the sea was a surprise to some of the party.

We stopped for lunch halfway up the glen by a waterfall where the montane species began to appear at a relatively low altitude (250 m) – *Saxifraga oppositifolia* (Purple Saxifrage), *Thalictrum alpinum* (Alpine Meadow-rue) and *Oxyria digyna* (Mountain Sorrel). Also high up on a ledge out of reach of grazing animals (but not of ambitious photographers!) was a large stand of *Trollius europaeus* (Globeflower) in full bloom.

After this the soil nutrient status seemed to decline and we were in typical acid grassland and bog. However, as we gained altitude in Coire an Sgàirne, a further range of montane species was encountered at about 750 m. After much discussion as to whether young *Alchemilla alpina* (Alpine Lady's-mantle) leaves were really *Sibbaldia*, a stand of *Sibbaldia procumbens* was found right on the path – obvious by its bluish tinge compared to the *Alchemilla*. Also present in this area was *Saxifraga hypnoides* (Mossy Saxifrage), *Luzula spicata* (Spiked Wood-rush), and the first stands of *Juncus trifidus* (Three-leaved Rush) and *Vaccinium uliginosum* (Bog Bilberry, Northern Blaeberry).

We had hoped to spend some time on the wide summit plateau looking at the extensive flushes there. However, as we reached the plateau the rain finally came down, so it was more of a mad dash to the summit (some of the party wanted to bag a Munro!). In fact there were few vascular plants visible on the flushes as they were still emerging from under the snow, although *Juncus triglumis* (Three-flowered Rush) was observed through the by now driving rain. There were also stands of *Sphagnum fuscum* with scattered *Cornus suecica* (Dwarf Cornel) and *Rubus chamaemorus* (Cloudberry). The summit slopes revealed cushions of *Armeria maritima* (Thrift), *Silene acaulis* (Moss Campion) and the prostrate *Salix herbacea* (Dwarf Willow). We had a brief stop at the summit (1032 m) for an epic group photograph with the mist swirling around, and then we strode rapidly down across the plateau, detained briefly by a flock of ptarmigan.

A total of 166 species was seen this day. There were no great rarities, but time on the summit was cut short by the weather, so we could not really assess the full botanical potential of Ben Attow, which is a large and complex mountain. However, further survey will probably not reveal any major surprises.

The next day was spent at lower level visiting some limestone outcrops in the predominantly acid moorland area on the other side of Loch Duich from the famous Eilean Donan Castle (without a picture of which, no shortbread tin is complete!) Bernard Thompson had identified this area as worthy of further survey. We parked at the road-end of Totaig, and walked through forestry plantations of Sitka Spruce and Sitka Spruce, the monotony of which was relieved by the impressive remains of a Pictish broch.

We finally emerged through the forestry to a steep grassy slope below wooded limestone cliffs. Although only at an altitude of 300 m they supported *Saxifraga oppositifolia* (Purple Saxifrage),

S. hypnoides (Mossy Saxifrage) and *Thalictrum alpinum* (Alpine Meadow-rue). We also saw *Hymenophyllum wilsonii* (Wilson's Filmy-fern) and *Trollius europaeus* (Globe Flower).

After leaving this relatively species-rich limestone area, we carried on uphill across acid moorland. We did find a solitary *Listera cordata* (Lesser Twayblade), a plant that normally skulks unseen in the heather! As we crossed the heather some much greener areas appeared ahead – areas of rich grassland underlain by limestone. This is unusual Precambrian limestone occurring amongst Lewisian Gneiss at 410 m, and in appearance it is very like the sugar limestone of Teesdale. Perhaps it did not contain as many interesting species as we hoped but there were large colonies of *Orchis mascula* (Early-purple Orchid) still in flower, *Galium boreale* (Northern Bedstraw) and *Arabis hirsuta* (Hairy Rock-cress) which is locally uncommon. Most interesting of all, though, were large colonies of one of my favourite flowers – *Dryas octopetala* (Mountain Avens) which was in full bloom.

We saw 162 species during the day, covering a range of habitats. The limestone outcrops occur in several places in this area and we only visited two of them so there is potential for further survey in this area.

J. FENTON

COLDINGHAM, BERWICKSHIRE (v.c. 81), 6th AUGUST [39]

The party of twelve botanists, including local members of the Scottish Wildlife Trust, enjoyed a walk along the coast between Eyemouth and Coldingham Sands.

The coast comprises low cliffs and grassy braes with rocky shores and shingle beaches. The geology is mainly Silurian shales but from Eyemouth to Callercove Point there are Lower Devonian andesites, Upper Old Red Sandstone and intrusive vent agglomerate. Below Coldingham glacial meltwater deposited beds of sand which have eroded at the coast to form a sandy bay.

On sandstone clifftops by Eyemouth we found *Armeria maritima* (Thrift), *Silene uniflora* (Sea Campion) and *Sedum acre* (Biting Stonecrop) locally with *Astragalus danicus* (Purple Milk-vetch). On andesite braes a colony of *Centaureum erythraea* (Common Centaury) was seen with plentiful seed heads of *Primula veris* (Cowslip) and *Orchis mascula* (Early-purple Orchid). There we also saw *Koeleria macrantha* (Crested Hair-grass) and putative *Euphrasia tetraquetra* (Eyebright) – a first v.c. record if confirmed.

Where the andesite lies beside vent agglomerate at Killiedraught Bay, we discovered colonies of *Carlina vulgaris* (Carlina Thistle), *Gymnadenia conopsea* (Fragrant Orchid) and *Listera ovata* (Twayblade) on the sea braes, while on Silurian at Hallydown Shore a feature was the masses of *Vicia sylvatica* (Wood Vetch) in fruit.

In flushes on the braes at Yellow Craig Head were *Parnassia palustris* (Grass-of-Parnassus) and *Eleocharis quinqueflora* (Few-flowered Spike-rush) while on the shore by brackish pools were excellent colonies of *Carex extensa* (Long-bracted Sedge) with *C. distans* (Distant Sedge) and a putative sterile hybrid. Also there were *Carex otrubae* (False Fox-sedge), *Puccinellia maritima* (Common Saltmarsh-grass), *Triglochin maritimum* (Sea Arrowgrass), *Spergularia media* (Greater Sea-spurrey) and *Glaux maritima* (Sea Milkwort).

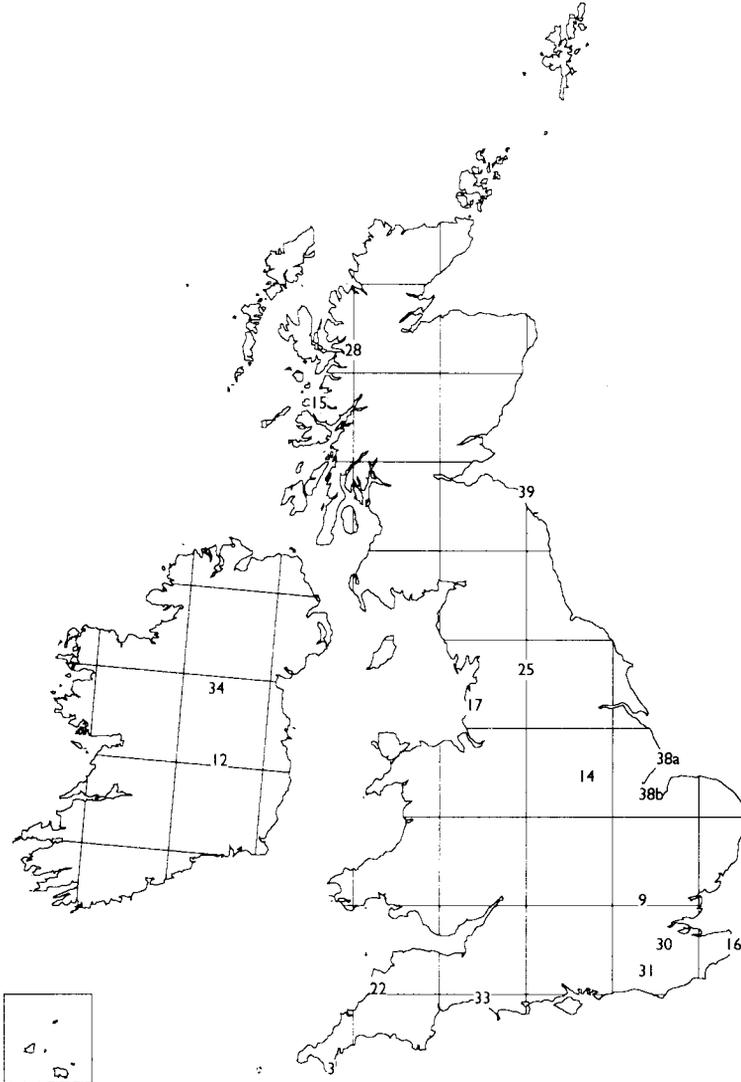
Along shingle beaches *Honckenya peploides* (Sea Sandwort) was plentiful. The locally rare *Atriplex laciniata* (Frosted Orache) was seen in small quantity but it was still too early in the season to separate *A. prostrata* (Spear-leaved Orache) and *A. glabriuscula* (Babington's Orache) with confidence. A good colony of *Ligusticum scoticum* (Scots Lovage) was found on rocks at Callercove Point. *Thalictrum minus* (Lesser Meadow-rue) was flowering among the holidaymakers at Coldingham Sands and here the locally scarce *Rorippa nasturtium-aquaticum* (Water-cress) was seen with its chunky fruit.

The arable edges were sandy and yielded in small quantities evidence of a formerly rich weed flora. We saw *Lamium amplexicaule* (Henbit Dead-nettle), *L. hybridum* (Cut-Leaved Dead-nettle), *L. confertum* (Northern Dead-nettle) and *L. purpureum* (Red Dead-nettle) with one specimen of

Stachys arvensis (Field Woundwort), only the second v. c. record since 1936. Along the path edge we found *Coronopus squamatus* (Swine-cress) in two places, the first v. c. records since 1916.

Particular thanks to Olga Stewart, Jackie Muscott and Clive Dixon for completing recording cards.

M. BRAITHWAITE



Map showing *approximate* localities of the field meetings reported above. The numbers are the same as given in the *Year Book for 1994*.

ADVERTISEMENTS

1995 WILD FLOWER HOLIDAYS

(Home & Abroad)

- 16-26 March** **Israel** Wild & Exotic plants. in particular 'the plants of the Bible' (Gatwick departure)
- 1-2nd April** **Avon Gorge** Bristol Rare spring limestone plants & ecology. Relic species described.
- 11-25th April** **Crete** Orchids, Tulips, Gorges & Scenery. (Gatwick or Manchester departures)
- 30 May-7 June** **The Burren - Ireland** Late rare spring limestone plants and ecology.
- November 2 wks** **Gran Canaria** Subtropical Exotics and Native flora (Local U.K. airport departures)

Please send/phone for details. Trips organised through local travel agent with ABTA-ATOL cover.

TONY TITCHEN, Botanical Study & N.H.
Trips, 29 Nore Road, BRISTOL, Avon BS20 9HN
Tel. 01275-848629 Fax 01275-843143

BOTANICAL WALKS IN GREECE 1995 with

Lance Chilton

- Rhodes-Peiaos/Lindos 1 to 8 April
 - Crete-Plakias 11 to 18 to 25 April
 - Crete-Georgiopolis 30 May to 6 June
& Mountains
- Lance Chilton, 22 River View, Retford, Notts
DN22 7UL. Tel: 01777-705588

The following natural history tour, which has a strong botanical element, has been organised by CANFAB:

- 22-29 June **Wildlife Safari** in the Teresa Farino Picos de ropa, N Spain
- Further details from: CANFAB, 8 Park View, Bakewell, Derbyshire DE45 1BS
(tel: 01629 813346)

HIGHLAND FIELD STUDIES

- April 21-24 Mosses & Liverworts Dunkeld
 - May 13-20 Highland Wildflowers Dunkeld
 - May 27-Jun 3 Botany in Morvern Argyll
 - Aug 26-Sep 2 Bryophytes Dunkeld
- The full programme is available from Brian Brookes, Borelick, Trochry, Dunkeld, Perthshire. PH8 OBX. Tel. & Fax: 01350-723222. All enquiries welcomed (sae. appreciated).



Wildlife Travel 1995

Let Wildlife Trust experts guide you to enjoy holidays for BIRDS, FLOWERS, PAINTING, GENERAL NATURAL HISTORY AND WALKING in the convivial company of fellow members to:



- CANARIES** Birds & wild flowers - Departure: 14 March; 1 week
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- KOS, KALYMNOS & NYSIRO** Wild flowers - Departure: 5 April; 1 week
- CRETE** *Wild flowers and walking - Departure: 11 April; 1 week.
Natural history and photography - Departure: 2 May; 1 week
- MAJORCA** Birds and landscape - Departure: 19 April; 1 week
- MOROCCO** Wild flowers - Departure: 19 April; 11 days
- CYPRUS** Wild flowers and mountain walking - Departure: 30 May; 10 days
- PROVENCE** Painting, flowers and birds - Departure: 31 May; 1 week
- HUNGARY** Wild flowers, birds and butterflies - Departure: 10 June; 10 days
- W. AUSTRALIA** Wild flowers - Departure: 22 September 1996, 3 weeks (1995 holiday fully booked).
*Departs Manchester - all other holidays from a London airport

For full details of any of these holidays write, ring or fax:

Wildlife Travel, Green Acre, Wood Lane, Oundle, Peterborough PE8 5TP Tel: 01832 274892 Fax: 01832 274568

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BOOKS FOR SALE

McVean, D & Ratcliffe, D 1962 *Plant Communities of the Scottish Highlands*

Burnett, J 1964 *The Vegetation of Scotland*.

Price £35 each (excluding postage) Contact

P.G. ATHERALL, 6 Blenheim Road, SUTTON, Surrey SM1 2PX

STOP PRESS

ALIENS : NEWSLETTER OF THE ALIEN STUDY GROUP

This is the last call for contributions to the next issue of *Aliens*. If any member has anything they would like included, no matter how short, please send it to me as soon as possible, and preferably before the end of January 1995.

GWYNN ELLIS, Editor

COMPUTERS AND THE BSBI

A meeting of the working group set up to look into the computer requirements of the BSBI met recently and explored thoroughly the thorny problem of what software to recommend to BSBI members who wish to set up their own plant records database. No existing software was found to fully meet the requirements of the working group although it was thought that several could be modified without too much effort. A set of requirements has been sent to the authors of suitable software packages asking for comments. The possibility of the BSBI producing its own package is also being explored. A final report is expected before the AGM in April.

GWYNN ELLIS, Acting Chairman, Computer Users Group

The Editor Gwynn Ellis can be contacted by phone on 01222-397951 ext. 218 (NMW) or 01222-496042 (home)

Articles can now be Faxed to the Editor on 01222-239829 or 01222-373219.

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London SW7 5BD.

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