BSBI NEWS

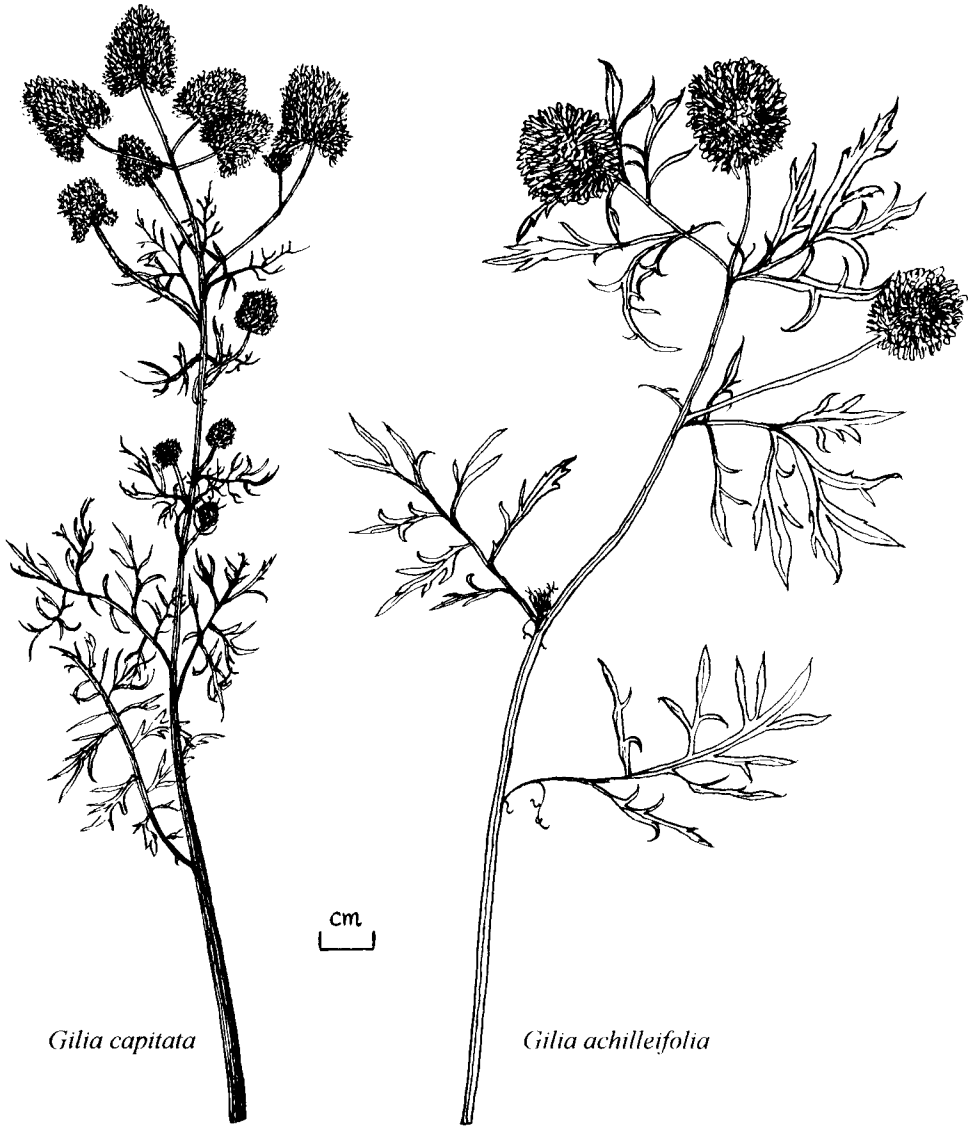
September 1995

Edited by R. Gwynn Ellis

No. 70

Dept. of Botany, National Museum of Wales

Cardiff CF1 3NP



Gilia at Watermint Quay, Clapton, del. Brian Wurzell © 1995. (See page 32)

ADMINISTRATION

HON. GENERAL SECRETARY (General Enquiries) Mrs Mary Briggs, MBE,
9 Arun Prospect, PULBOROUGH, West Sussex RH20 1AL
Tel. 01798-873234

HON. TREASURER (Payment of Subscriptions and change of address) Mr Michael Walpole,
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Tel. 01509-215598

(Please quote membership number on correspondence concerning membership or subscriptions – your membership number is on the address label of your mailings, and in the List of Members in *BSBI Year Book 1995*).

HON. FIELD SECRETARY (Enquiries on Field Meetings). Mrs Margaret Lindop
36 Woodland Hill, Whitkirk, Leeds LS15 7DG
Tel. 0113-2646513

OFFICERS AND COUNCIL FROM MAY 1995

(Dates given are those of election for present service)

President:	Mr D.A. Pearman, 1995
Vice-Presidents:	Mr A.O. Chater, 1993
	Mr R.G. Ellis, 1995
	Mr C.D. Preston, 1995
Honorary General Secretary:	Mrs M. Briggs, 1972
Honorary Treasurer:	Mr M. Walpole, 1971

COUNCIL

In order of seniority in accordance with Rule 11:

1992: Miss A. Burns, Mr P. Thomson & Dr F.J. Rumsey (co-opted 1995)

1993: Mr B.A. Gale, Mr D.J. McCosh, Dr G. Wynne

1994: Mrs M. Lindop, Prof. C.A. Stace, Mr R.M. Walls

1995: Mr M.E. Braithwaite, Mr R.M. Burton, Mr D.E. Green

Elected by Regions in accordance with Rule 12:

1991: Ireland	Mrs S. Reynolds
1993: Scotland	Dr P. Macpherson
1994: Wales	Mr P. Day

Appointed by Council:

Hon. Receiving Editor *Watsonia*:	Dr B.S. Rushton
Hon. Editor *BSBI News*:	Mr R.G. Ellis
Hon. Field Secretary:	Mrs M. Lindop

ex officio:

Chairman Meetings Committee:	Dr S.L. Jury
Hon. Secretary Publications Committee:	Mr C.R. Boon
Chairman Records Committee:	Dr G. Halliday
Chairman Conservation Committee:	Mr D.T. Streeter
Hon. Minuting Secretary:	Mr P. Thomson

CONTRIBUTIONS INTENDED FOR

***BSBI NEWS* 71**

should reach the Editor before

NOVEMBER 5th 1995

COMMENT

PRESIDENT'S INTRODUCTION

Recently I found a binder who only charged a very modest sum for binding up my periodicals, so *BSBI News* is no longer scattered over and behind the shelves. There is a very strong sense of *déjà-vu* when reading the early issues; many things that we are trying now were discussed or tried then, inducing a sharp feeling of mortality! One strand is constant, however. Our faithful Secretary and Treasurer were present then, if anything , of course, only increasing my sense of fugacity; here for two years and then off into limbo again.

As you will know the Society has the semi-official endearing custom of alternating professional with amateur presidents. That enables a different perspective as well as a chance for lesser mortals to rub shoulders with the luminaries one has admired since childhood. I am a relative newcomer to Council, although I joined the BSBI in 1970. It was only after joining CABS in 1988, and then going on to Plantlife, whilst at the same time becoming involved with the Dorset Wildlife Trust and running the Environmental Records Centre in Dorchester that I began to learn a little about conservation and the people involved. A spell on our Council, helping with the Scarce Plants Atlas, and with the Sites of Nature Conservation Interest scheme in Dorset, many dealings with the NCC and its successors, and meeting and working with people like Chris Preston, Andy Byfield and Ro FitzGerald have added, I hope, a lot of background knowledge.

The reason for this preamble is not to give you a reason for why it is so difficult to contact me, but to set the scene for when Council decided eighteen months ago that the Society's *raison d'être* needed addressing or sharpening, how I came to be involved, apart from being left, as in the game, with the parcel.

We decided that the Society was in danger of being marginalised. We are, I think, the experts in Britain on plant taxonomy, identification, and distribution, and the vast bulk of the information used in these fields originates from our members and our publications. Yet there is no real acknowledgement of this – we neither receive or have sought funds, and our efforts are taken for granted. There is nothing wrong with that, of course, but all the time other organisations (Wildlife Trusts, Environmental Record offices, consultants, et.) are also building up databases, which often lack the rigour of those held by our County Recorders, or by the BRC at Monk's Wood, and to which we may often find access difficult for one reason or another. Furthermore, as the staff of the Country Agencies (Countryside Council for Wales, English Nature and Scottish Natural Heritage) become more administrative rather than field workers, they either lack botanical expertise (or even a botanist in the case of EN), or go to other organisations who, quite naturally, lack our first hand knowledge.

So I was charged to try and obtain funding for a person to 'co-ordinate' our expertise and make certain it was available to those who need to make judgements or decisions on our flora. Much to my surprise, (and I suspect others too!), I've been successful, with half the sum required coming from the Esmeé Fairbairn Charitable Trust, and the other half coming by way of a grant, from the three Country Agencies. We advertised in July and hope to have chosen from the over 400 applicants by the time this note appears.

I am quite aware that it will be a balance to employ somebody, and not in any way to blunt the completely volunteer ethos which has produced so much. I think and hope that the help a 'Co-ordinator' will bring will only complement our efforts. The main task will be to help our vice-county recorders to become familiar with computers and to improve data-flow from the newcomers and from those too who are already computerised. We hope that another grant application will produce money to assist with hardware. There will be no bullying!

There are, of course, other things that we feel are relevant to the Society. I have mentioned the liaison between us and the country agencies. The mix of membership between amateur and professional, which I feel is one of our greatest strengths, is changing, with less members among the paid staff of the country agencies and Wildlife Trusts. We can all think of a number of good reasons why this might be so but a few more members from those groups would be very welcome, and it is probably a more realistic target than a mass membership drive, although I hope the new Atlas will bring in lots more botanists and members.

This new Atlas – 'Atlas 2000' is the other main ongoing project. We still cannot tie up funding, and I suppose the last resort is to go to the Lottery Fund, but after one effort with their 24 page application form I'm reluctant to try again! We are so near with our existing contacts that I keep on thinking that next week something positive will happen, but I feel this autumn we must take stock one way or another. With improved data techniques through our 'co-ordinator' we will be some way further towards being able to produce the Atlas, but there are and will be substantial gaps, and there is still much data from the original Atlas to computerise. I believe a new Atlas is essential – the old version is used so much and is so outdated, that the wrong conclusions are being drawn.

Another matter that has evolved over the last few years that I feel intimately affects the Society and its conservation role, is the emergence of Plantlife. The situation may have changed now but a year ago 30% of our members were members of Plantlife and vice versa. I certainly do not feel that we are co-operating to the benefit of us both. I would like a situation whereby we supplied them with facts (via our co-ordinator?) which they interpreted and campaigned for – and for which they acknowledged our input. I suppose the situation is akin to that of BTO and RSPB. We must not forget that we were instrumental in the setting up of CABS, which was one of the precursors of Plantlife, and let us support something we cannot reinvent ourselves. I intend to propose to our Conservation committee that we meet Plantlife this autumn to agree a formal basis of co-operation for ratification by our Council next spring.

These plans, plus all the ideas of my able and indefatigable predecessor, to whom I owe such a debt, will more than keep me busy for the next eighteen months. Please contact me with any thoughts or comments – especially before 9 p.m.!

DAVID PEARMAN, President, 12th August 1995

DIARY

N.B. These dates are supplementary to those in the 1995 Calendar.

		1995
SEPT.	23	Bumble Bees for pleasure and profit Symposium, London (see page 39)
OCT.	23	NVQs and Environmental competence seminar, London (see page 38)
	31	Deadline for booking for Exhibition Meeting (see separate leaflet)
NOV.	5	Deadline for contributions to next issue of *BSBI News* (see page 3)
	28	Continuing Professional Development seminar, London (see page 38)
		1996
JUNE 19 - JULY 4		BSBI field trip to Wengen, Switzerland (see page 36)

See also pages 44-45 for dates of 1994 Botany Tours at home and overseas

EDITOR

EDITORIAL

BSBI Logo

The last issue of *BSBI News* was the first to carry the Society's Logo on the front cover. Only one member commented – critically, and it has now been moved to what I hope is a more acceptable position – any comments?

Research and Travel Grants

These will now be published annually in the *BSBI Year Book* which seems to be a more logical place for them. So if you are looking for financial support for some botanical work look in the *Year Book 1996* which will be distributed with your January mailing.

Notes to contributors

My thanks to all who sent in typed copy of their contributions for this issue, but don't forget that handwritten copy is still accepted. If you do type future contributions it will be a great help if you follow some standard conventions by looking at past numbers of *News*. For instance, titles of papers and author's names are always in CAPITALS and English names are always given (except sometimes in long lists). Keep your formatting to a minimum, **don't** put Latin names in *italics* or underline them (they are more difficult to scan in successfully), I will do this later.

EDITOR

PROFILE

MARY J.P. (MAURA) SCANNELL

Honorary Member, Botanical Society of the British Isles, 1995

On her retirement in 1989 as Head of the National Herbarium, Maura Scannell had played a central administrative role in Irish floristic botany for some 40 years. For most of this period she was primarily responsible – in straitened circumstances and with few staff – for the curation of this important national archive. Formerly housed in the National Museum of Ireland, Kildare Street, the Herbarium was moved to more congenial (if cramped) conditions at the National Botanic Gardens, Glasnevin in 1970. It is at Glasnevin, I suppose, that most botanists have enjoyed Maura's enthusiastic hospitality, although my own student recollections of it go back to 1964 in the garret of the National Museum, where I first met her. As Assistant Keeper of the Natural History Division of the Museum, she was conversant with a wide range of topics: geology and zoology in addition to her primary role as botanical curator both of the herbarium and of the materials on economic botany. All who have used the National Herbarium professionally in the past 40 years can testify to their ready access to the collections, guided by Maura's unrivalled knowledge of the specimens, and assisted with her boundless practical directions to further sources of information. Her own contributions of carefully provenanced specimens to all sections of the Herbarium are not exceeded by any botanist but Praeger, and are in large part the product of her own leisure time as she explored the recesses of the Irish countryside. Fortunately for us, her numerous publications, which supplement her collecting activities, have ensured that the results of her labours are well documented for future generations. They are the more impressive when one remembers that the daily duties of administering an important public archive were in themselves a full-time task. But Maura, as we know, is a 24-hours-a-day botanist! *Census Catalogue of the Flora of Ireland* (2nd edn, 1987) and its lesser-known but invaluable companion *Sources for the Census Catalogue of the Flora of Ireland* (1989) – both written with her colleague Donal Synnott, now Director of the National Botanic Gardens – collate and condense in a most convenient manner information on the distribution of the Irish flora, to whose study Maura has primarily devoted her working life.

She has been a member of the BSBI for over 30 years, and was an organising and founder-member in 1963 of the Irish Regional Committee (*Proc. BSBI* **5**: 268-272 (1964)), embracing the activities of field botanists throughout the island of Ireland. She has had a unique record of continuous membership of the committee until last year, representing for successive, younger generations of Irish botanists an unbroken line with earlier days, and knowledgeable about past events, field-meetings and helpful contacts. The first field meeting of the new committee (July 1964) discovered *Minuartia recurva* (Recurved Sandwort) in the Caha Mountains (*Irish Naturalists' Journal* **15**: 130-132 (1966)), a splendid omen of future successes! Also in 1964, the new regional committee set itself a practical if ambitious task: a survey of the flora of the Connemara and Burren regions. The eventual publication (somewhat delayed, as seems inevitable with co-operative ventures) in 1983 of *Flora of Connemara and the Burren*, co-authored by Maura and David Webb, revived the highest standards of the distinguished tradition of Irish local floras, which had all but ceased with Scully's *Flora of County Kerry* in 1916. Their *Flora* provides a modern exemplar for new work in this genre. (Maura is currently active with colleagues on two other county floras, Cork and Westmeath.) Her contributions to *FCB* are innumerable and often, typically, cryptic. One, perhaps, may be singled out: the identity of the Renvyle *Hydrilla* (*Irish Naturalists' Journal* **18**: 327-331 (1976)) was a scholarly resolution of the taxonomic confusion that had surrounded this plant. Crucial to the study was Maura's horticultural skill at flowering the plant in cultivation at Glasnevin in 1974. Subsequently (in 1983) she was able to study this species in Poland, where it has its nearest extant station to W. Galway, as an Exchange Fellow of the Royal Irish Academy and the Polish Academy of Sciences. Her numerous contributions to *Atlas of the British Flora* (1962) helped considerably to ensure the accurate depiction of plant distributions in Ireland; she has continued to supply information for the Monitoring Scheme and other initiatives of the Society.

Maura provided the necessary stimulus and much very practical assistance to Evelyn Booth to compile and complete her *Flora of County Carlow* (1979): all the prolonged and tedious preparations from field notes of a presentable text for the printer were undertaken by Maura. (Miss Booth was 82 years old on its appearance.) But, indeed, in numerous Irish floristic works of the past 30 years one reads an acknowledgement of her initial inspiration, practical day-to-day help, sound advice, and continuous encouragement (see, for example, *Flora of Inner Dublin* 1984). Such help always went far beyond what one might think of as her 'official duties' as Head of the National Herbarium: not only has she facilitated consultation of its archives, but has been enthusiastic in encouraging those with whom she came into contact through their enquiries there, particularly when her own generosity was reciprocated for the benefit of the collections or of Irish botany generally. She was also quietly influential in the establishment by the Civil Service of the post of taxonomist in the National Botanic Gardens on the eve of the transfer of the Herbarium to Glasnevin.

Thus far I have concentrated on Maura's contributions to Irish floristic botany, insofar as they are especially relevant to members of BSBI. But these represent only part of her intellectual activities. She has also published papers on her collections of freshwater and marine algae, microfungi and lichens. Responsible as she was for virtually all aspects of botanical science in the National Museum, she had perforce to become expert on the identification of large numbers of archaeological objects of plant origin, especially seeds and wood samples. She identified the various woods of all the Irish harps in the National Museum. Much of her work in this area is obscurely published as appendices to glamorous tomes on Irish archaeology or cited by other scholars (e.g. T. Rimmer *The Irish Harp*, 1969), but is nonetheless vital to the full appreciation of the origins and provenances of the artefacts. The identification of dye plants, fibres, microalgal scums, moulds, and stomach contents of cattle and sheep added spice to herbarium routine! She has written *inter alia* on Roger Casement's ethnographical collections from the Congo Free State, and on the botanical art of George du Noyer (a highly skilled artist who worked for the Geological Survey of Ireland in the mid 19th century) and of the Plunket sisters of County Louth (who flourished in the 1890s). The Museum provided her with an ambience to appreciate the work of past Irish craftsmen and women, and, indeed, to foster personally the works of the living. She has a deep sensitivity to the heritage and culture of Ireland in its broadest aspects.

Her love and knowledge of books is well-attested. By her foresight, she was primarily responsible for the acquisition by the State in 1957 (from the library at Moore Abbey, Monasterevin) of the hortus siccus of Gaymans, purchased in 1684 while a medical student in Leiden by Thomas Molyneaux, a

founder of the Dublin Society. This volume contains 676 specimens, one of the oldest known Dutch herbaria, and is now a treasure of the National Herbarium at Glasnevin. She collaborated closely with Leiden botanists on the published catalogue of this exceptionally important pre-Linnean work. (Mention of the Dublin Society reminds one of Maura's life-long commitment to the Science Committee of the Royal Dublin Society, and her role as that Society's representative for several years as a Trustee of the National Library of Ireland.) As one might expect, given such interests, she is a fountain of recondite information on many aspects of Irish botanical history, spilling ideas freely for others to pursue. Her multifarious duties in the Herbarium (which included her role as its librarian) had of necessity limited her own published output on botanical history, but I have no doubt that she is delighted with the progress that has been made in this area in recent years. She has been punctilious in recording for posterity memoirs of deceased botanical colleagues in Ireland. This is a gloomy task, when writing of friends. But who, we may ask, is better placed by her friendship with botanists throughout Ireland to ensure that their toils and achievements will not be forgotten?

She has been closely involved with the Dublin Naturalists' Field Club (of which she is an Honorary Member since 1987), a forum which transcends, like the BSBI itself on a wider scale, distinctions between professional and amateur, experienced and novice, old and young. The Field Club seems to embody an ideal social milieu for her generosity of intellect and spirit to manifest itself. Her focus is ever on the beginner, with her fresh ideas and words of encouragement (witness her long association as a respected judge of the annual Irish Young Scientists Competition), as much today, I believe, as when I first experienced it personally over 30 years ago,

Is cóir agus cui dom ar an ócáid céimiúil seo – bronnadh ballraíocht onórach an BSBI ar Mháire Ní Scannaill – beagán a rá as Gaeilge: 'sé is lú is gann dom i láthair scoláire agus luibheolaí a bhfuil mórmheas aici ar oidhreacht agus cultúr na hEireann i gcoitinne agus ar ár dteanga dhúchais go háirithe. Le daicead bliain anuas mar Coimeádaí na Luslainne Naisiúnta, thug Máire cabhair agus cúnamh go fial don uile duine a rinne teagmháil léi, agus go sonrach don té aineolach ar an dúlra nó neamhcleachtach ar phlandaí na hEireann. Inniú déanamid comhghairdeas croíúil léi, agus gabhaimid ár mbhuíochas di ar son na sluaite ar chabraigh sí leo. San am amach romhainn, 'sé ár ndóchas go gcoinneoidh sí le fiosrú agus taighde na luibheolaíochta i measc

Caora cuilinn, cnusach biolair,
cnó agus úlla cumhra.

Maura Scannell taken in 1976

JAMES WHITE, Department of Botany, University College, DUBLIN, Ireland

HON. GENERAL SECRETARY'S NOTES

Congratulations: to Sir Ghillean Prance, created a Knight Bachelor by the Queen in her Birthday Honours, for his scientific services to conservation.

to Dr Max Walters, this year's recipient of the Linnean Medal for Botany.

to Dr David Allen on an honorary doctorate conferred by the University of Essex

and to Megan Dowlen and Graeme Lyall, Dept. of Botany, The Natural History Museum, Cromwell Road, London, on a romance that blossomed at the BSBI AGM in Dublin. The wedding is set for October.

Exhibition Meeting, Leicester

We look forward to seeing many of the regular attenders, as well as some new faces at this interesting meeting. The Exhibition is the largest gathering of members in the year, so particularly useful as a botanical meeting place.

We ask exhibitors on the application form for their title (Prof., Dr, Mrs, etc.) and initials – for the programme at the meeting. This enables cross reference with the List of Members in BSBI Year Book, and also gives a consistent and tidy list for the day. Those exhibitors who prefer a less formal exhibit title on the bench with their exhibit can also give their first name (in brackets) on the application.

Letterheads Request for Exhibition

Many members now have letterheads and compliment slips, with botanical designs and/or descriptions of various botanical services offered – especially those members who are environmental consultants. If you would like to bring these along to the meeting, or post them to me in November if unable to come yourself, we would like to display them on the 25th.

Research Request

Does any member know of botanists commemorated by a wall plaque on the house in which they lived? Bryan Fowler reports that one in Wolverhampton is for the Victorian botanist John Fraser 1820-1909. Possibly a member near London would like to undertake a small botanical history research project to find any in the London area (the local Councils would have a record?). If members could send others known to them a list could be published in a future *BSBI News*.

Tailpiece

To add to David Allen's profile published in *BSBI News* **69**: 13, David has been continuously on one BSBI committee or another for 42 years (he started young!). He aims to beat the committee records of 'The Teds' – Lousley & Wallace!

MARY BRIGGS, Hon. General Secretary

RECORDERS AND RECORDING

Amendment no. 2 to List of BSBI Vice-county Recorders in *BSBI Year Book 1995*

With much regret we report the death of Frances le Sueur of Jersey. Frances had been Recorder for that Island for 14 years, and her *Flora of Jersey* published in 1984 was a great achievement. Frances was concerned too with the conservation of all wildlife on the Island and she will be sadly missed. There will be an obituary in *Watsonia*.

The new Recorder for Jersey will be announced in the New Year mailings. Jersey.

Changes of address:

22 Berks Dr S.L. Jury, Dept. of Botany, Plant Science Laboratories, University of Reading, Whiteknights, Reading, RG6 6AS

63 S W Yorks Mr Geoffrey T.D. Wilmore to 1 Clough Lane, Oakworth, Keighley, W. Yorks BD22 7HP

78 Peebles Mr David J. McCosh, Baconsthorpe Old Rectory, Holt, Norfolk NR25 6LU

Amendment no. 2 to Panel of Referees and Specialists in *BSBI Year Book 1995*

With regret we report the death of John Edward Cousens in January this year.

At present we have no *Quercus* Referee, and it will not be easy to find another with so deep an understanding of the status of our native oaks, the introgression between *Quercus robur* (Pedunculate Oak) and *Q. petraea* (Sessile Oak), and the degree to which this increases northwards from northern England into Scotland.

We welcome the following new Referees

EUROPEAN PLANTS

Eastern Mediterranean (Greece, E. Aegean Islands, Mediterranean coast of Turkey and Jugoslav Macedonia): Nick Turland joins John Akeroyd who will also accept specimens – preferably – or photos in moderate numbers from E. Med. (See the notes under Spain and Morocco, *BSBI Year Book 1995* p. 36, which apply to E. Med. also).

Mr N.J. Turland, Dept. of Botany, The Natural History Museum, Cromwell Road, London SW7 5BD.

GARDEN PLANTS

General: Peter Green

Mr P.S. Green, The Herbarium, Royal Botanic Gardens, Kew, Richmond, Surrey TW9 3AB

The Referees for Dactylorchids, Dr Richard Bateman and Dr Ian Denholm send the following instructions for specimens – replacing those in *BSBI Year Book 1995*.

ORCHIDACEAE

Dactylorhiza: Dr I. Denholm (especially south and Central England and Wales) and Dr R.M. Bateman (especially northern England and Scotland). No whole plants; fresh material strongly encouraged. Preferred specimens are a single fully open flower and the subtending bract (placed together without other materials in an airtight vial or similar container) plus the longest sheathing leaf (packed flat).

Pickled flowers supported by colour notes are much less satisfactory. Photographs of the whole plants and close-up of the inflorescence are highly desirable (ideally, well focused and to a specified scale), together with notes on the locality, habitat, and all dactylorchid taxa assumed to be present (especially important if hybridisation is suspected); identification will be attempted from photographs alone where necessary.

Retirement

Charles Jeffrey has retired as Referee for *Senecio* – and at times general Asteraceae Referee also – and we send thanks to him for his help.

Changes of Address:

TILIACEAE

Tilia: Dr Donald Pigott has a new address **from October 1st 1995**:

Greenbank, Aynsome Lane, Cartmel, Grange-over-Sands LA11 7SQ (and note the new instructions for *Tilia* published in *BSBI News* **69**: 14).

ASTERACEAE

Aster: Dr P.F. Yeo, 71 Grantchester Meadows, Cambridge CB3 9JL

EUROPEAN PLANTS

Spain and *Morocco*: Dr S.L. Jury – see change of postcode as for v.c. 22 Berks in changes of Recorders addresses above

MARY BRIGGS, Hon. General Secretary

ATLAS RECORDS ON DISK

BRC would prefer to take in records for the new Atlas on disk wherever possible. They are able to accept data from a wide variety of computer, provided:

(i) that the data are in ASCII format

(ii) that the data are on 3 ½" (preferred) or 5 ¼" disk

(iii) that the data are accompanied by dictionaries for any non-standard codes used and by a listing of the fields in the order in which the data are transferred

Ideally the data should be in column delimited form. This simplifies examination if there are queries.

For those who hold their data as text files, use other sizes of disk or otherwise have doubts about their format being compatible, it would be helpful for BRC to be sent a sample for examination and discussion at an early stage.

For those who do not wish to computerise their records, BRC will continue to accept data on master cards for each 10 km square.

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

BSBI & CODES OF CONDUCT

The need for a Code of Conduct for the conservation of wild plants was noted by Conservation Committee in the 1960s and in 1970 BSBI published a simple black and white leaflet which was a Code for *BSBI members*. No plants were named but seven recommendations were listed on collecting plants only sparingly when essential, and not rarities. By 1972 a special subcommittee had prepared a list 303 nationally rare species which was published by A.J. Richards in *Watsonia* **9**: 67-68, followed by a reprint as a leaflet with the original Code.

The need then was for a Code for non-members and for general distribution, and a simplified Code with advice on conservation, but no named plants, was published in 1973. A new edition was published in 1979 listing the 21 plants totally protected in the *Conservation of Wild Creatures and Wild Plants Act 1975*, and following the *Wildlife and Countryside Act 1981* a new update, published jointly with CoEnCo in 1982, listed the 62 plants then protected by law.

A new update including protected plants added by the first Quinquennial Review was published in 1989 by CABS, associated with six British Botanical Societies – with the now long list of protected flowering plants, ferns, a *Lycopodiella* and one *Chara*, and separate lists for Ireland. The different editions of these Codes come in maroon, green, purple and orange-red – all with a Fritillary cover based on the *Fritillaria meleagris* design of the 1973 Code. By 1980 we had distributed 300,000 to all parts of the British Isles – and beyond. Since then we have lost count, but it must now be many hundreds of thousands, taking the message that plants need protection – now a familiar concept but a novel idea to many people 25 years ago. Currently we post some Codes to enquirers every week – our stocks are running out again and a new edition is once more urgently needed.

MARY BRIGGS, Hon. General Secretary

NOTES AND ARTICLES

THE ORIGIN OF *OENOTHERA BIENNIS* L. s.s. : A NEW HYPOTHESIS II

Further to my note in the *BSBI News* **69**: 18-19 (April 1995), Professor K. Rostanski has sent me an extract from *Oenothera* by Professor Cornelia Harte (Cologne) (1994), in Volume 20 of *Monographs on Theoretical and Applied Genetics*, (Berlin):

> 'An interesting hypothesis about the distribution of *Oe. biennis* L. is presented by Rostanski (1968c, 1975,1982). This species is a long-established member of the flora not only in Europe but also in northern Asia. It is found on islands off the Pacific coast between Asia and Alaska, on Sachalin and in Siberia, growing on riverbanks and in other habitats similar to those occupied by the genus in Europe. Specimens were collected early and the distribution is documented in old Russian herbaria (Rostanski, pers comm.). Cleland did not find in his collection of North American *Oenothera* species a type like the European *Oe. biennis* L. Therefore it seems possible that this species, now extinct in its original site, started a few thousand years earlier, travelled the other way round the globe, over the northern Pacific islands and then crossing Asia and into Europe, leaving isolated populations in suitable habitats and arriving in Europe, at nearly the same time as those species that came across the Atlantic.'

JOHN C. BOWRA, 29 George Road, WARWICK CV34 5LX

SEED OF *SILENE LATIFOLIA*

I am interested in obtaining seed samples from the white campion, *Silene latifolia* (= *S. alba*) from throughout Europe. Please remember to slip a few seed envelopes into your suitcase when you set off on your European travels this autumn or next summer, and think 'white campion' when you stop to picnic on road verges or in disturbed habitats! Seed from the British Isles is also of interest

I would like to assemble samples of seed from as many places as possible, rather than have large amounts of seed from a few populations. For each population, pool seed from about 10 females in the same envelope – no need to keep the different females separate. Seed from fewer females is also acceptable. Note nearest town and date of collection.

The seed samples will be used in studies of genetic variation and geographic differentiation in the white campion.

I will, of course, be happy to refund postage costs.

HONOR C. PRENTICE, Department of Systematic Botany, Lund University, Ö. Vallgatan 18-20, S-223 61 LUND, Sweden

SOME COLOUR VARIANTS OF *ORCHIS MORIO* IN BEDFORDSHIRE

Many colonies of *Orchis morio* (Green-winged Orchid) have a small number of white-flowered plants. D.C. Lang mentions a colony in Sussex where, over a ten year period, it was found that the white form occurred regularly as about 1% of the population. (Lang 1980)

For many years a small colony of *O. morio* in Bedfordshire has produced one or two plants with pure white flowers. However in a survey completed this year (1995), covering a ten year period, the white-flowered plants have been recorded regularly as a much higher percentage of the population. Over the ten year period the white-flowered plants appeared in numbers ranging between 3.5% to 15% of the total plants, and averaged about 10% of the population.

In 1990 a more unusual colour variant was recorded in this colony. Two plants, growing close together, were found with flowers that were mostly pure white but with the margins of the hood and the lip flushed with pink. The spots which normally occur in the central area of the labellum in purple and pink plants were absent. Colour slides of these plants were taken and a brief note was included in the magazine of the Wildlife Trust in that year.

This year (1995) another unusual variant appeared in this colony. This was not as striking as the two earlier plants, being similar to the pink form except that most of the upper surface of the lip was white and the spots were absent. It is possible that this plant arose as a result of cross-pollination between one of the earlier semi-white flowers and a pink form.

To my knowledge these unusual colour variants of *O. morio* have not been recorded before, and would presumably be of rare occurrence in this and other similar orchid species. A 'semi-albino' plant of *Dactylorhiza majalis* (Broad-leaved Marsh-orchid), with 'many of the flowers significantly but not wholly white', has been recorded by F. Horsman. (Horsman 1991).

References

Lang, D.C. (1980). *Orchids of Britain*. Oxford.
Horsman, F. (1991). On Some Curious Dactylorchids. *BSBI News* **58**: 29-31

PETER C. HORN, 22 Jowitt Avenue, Kempston, BEDFORD MK42 8NW

GRID SQUARE NOMENCLATURE

Now that ATLAS 2000 is under way, and recording is on the basis of '10 km. squares', it would seem to be the opportunity to replace that rather clumsy term of measurement. TETRAD is universally accepted as the name for a 2 × 2 km square, and appears in my ordinary English dictionary. In *BSBI News* between 1983 and 1987 we find the name 'centrad' being used rather tentatively as an area of 100 sq. km. The note from Guy Messenger in *BSBI News* **45**:12 (April 1987) makes a well-argued case for using the term HECTAD for a 10 km square in any system in which the TETRAD is a 2 km. square.

The Latin prefixes deci-, centi- and milli- are accepted for use in any division of a unit, e.g. millimetre, centilitre, and Greek prefixes kilo-, mega-, and giga- for use in any multiplication of a unit. These are in general use, decathlon, kilogram, megabyte, etc. especially in electronic terminology. HECTAD falls very well into this system, and we are very familiar with HECTARE relating to land measurement of 100 acres, a much smaller unit.

I have been using this term for some years in my own mapping, and find that Hectad SO 26 is a convenient, as well as a more elegant and euphonious, way of placing myself in space.

DAVID HUMPHREYS, Knill Court, PRESTEIGNE, Powys LD8 2PR

TOWARDS AN ABERRANT FLORA OF THE BRITISH ISLES

The 8-page newsletter, *That Plant's Odd*, has now settled down to being produced 3 times a year. It was created after the 1992 conference in Cardiff 'The Common Ground of Wild and Cultivated Plants' as a means of offering something back to those sending in records of aberrations in the native flora. However, reports, records and speculations are now exceeding its capacity. We are also accumulating a wealth of photographic evidence which we cannot accommodate in *That Plant's Odd* (although slide material is being used as the basis for day and week-end courses).

There seems to be no other way of dealing with this bursting than to propose *'An Aberrant Flora of the British Isles'*. I would like to put this idea before BSBI members to gauge any response. It could act as a kind of celebration of the eccentricities of our native flora. The first leg would involve an attempt to gather as much diverse material as possible with some sort of illustrative content over the next 5 years. It would not attempt necessarily to portray the historical perspective of each aberration

but rather act as a snapshot of the current state of mutation, distribution of non-lethal viruses, mycoplasmas, etc.

Subscription to 'That Plant's Odd' is £2 for 3 issues, from the author at the address below.

MARTIN CRAGG-BARBER, 1, Station Cottages, Hullavington, CHIPPENHAM, Wilts SN14 6ET

PLANTS IN CHURCHYARDS – BETONY, (*STACHYS OFFICINALIS*)

The recent articles on Wild Clary planted in churchyards in the Middle Ages (Nick Sturt and Frances Abraham *BSBI News*: **69**) called to mind that Betony was also grown in the belief that it was endowed with power over evil spirits in addition to its extensive medicinal properties. 'On this account, it was carefully planted in churchyards and hung about the neck as an amulet or charm' (M. Grieve. *A Modern Herbal*). Erasmus believed that it was good against fearful visions and an efficacious means of driving away devils and despair. In conducting some local churchyard surveys, I have found it growing in Redlynch Churchyard, Wiltshire and wondered if that was by chance or a survivor from an old planting.

BARBARA LAST, The Stable, Berwick St James, SALISBURY SP3 4TH

MISSING MEDLARS

Kevin Pyne in *BSBI News* **69**: 51-52 asks if the medlar, *Mespilus germanica*, can reproduce by seed in this country. According to Osborn (1963) it can be grown from seed here under a frame so perhaps the tree could reproduce by seed here in the wild if the seeds fall in a sheltered place. He also suggests grafting medlar on to species of *Crataegus* so if the stock and scion of such a graft flowered at the same time cross-pollination to produce a haw-medlar hybrid might easily occur.

Osborn records three such hybrids under the name of *Crataego-mespilus* [now known as × *Crataemespilus*]. One, *C. asnieresii*, is said to be intermediate in all characters. The second, *C. dardari*, known as the Bronvaux medlar, is said to be more like the medlar than the haw. In both of these, branches sometimes revert to one parent and sometimes to the other suggesting that they may be graft-hybrids. The third, *C. grandiflora*, he regards as a natural hybrid which remains true to character. All are to be propagated by budding or grafting with no mention of seed formation and so may be sterile although both parents have 2n = 34 chromosomes.

Since the fruits were apparently eaten only when gathered during the first frosts and then stored until over-ripe or bletted I for one am not surprised that the medlar is no longer a popular fruit!

Reference

Osborn, A. (1963). *Shrubs and Trees for the Garden*. Ward, Lock & Co., London.

JOHN TIMSON, 5 Ashley Avenue, Flixton, Urmston, MANCHESTER, M41 8TD

CALCICOLOUS PARASITES

Carol Hora's bewilderment (*BSBI News* **69**: 40) with regard to the preference of mistletoe for hosts growing on calcareous soils was interesting.

In Mid-west Yorkshire we have, to my knowledge, only two sites for mistletoe, one on apple, one on lime, both on Permian Magnesian Limestone.

Equally mystifying is the predilection of the thistle broomrape (*Orobanche reticulata*) for second-hand calcium. In Britain its most usual host is the ubiquitous creeping thistle (*Cirsium arvense*), yet the broomrape itself is restricted to two areas on the Permian Magnesian Limestone in North and West Yorkshire and one area on the Chalk in East Yorkshire.

Several other questions regarding this plant pose themselves:

Why does it appear abundantly two years after disturbance of the ground?

What happens to the tuberous root attachment after flowering?

Is the plant annual, biennial or perennial?

Why is it host specific?

One can hypothesise about heat and light requirements and biochemical requirements and reactions but, in view of the plant's Red Data Book status, we amateurs are not in a position to find out the answers. At the moment we are learning how to protect the plant by observation and experimental management of the rough grassland habitat.

Can any of those people who are growing broomrapes for their research projects shed any light?

Incidentally, it would be sensible if people coming to view the broomrape would delay their visit until after mid-July and thus avoid inadvertently treading on and damaging emerging spikes, which would be a criminal offence!

PHYL ABBOTT, 73 Ridgeway, LEEDS, LS8 4DD

PRIMULA SCOTICA AND SOUTHERNERS

There is a brief entry in Desmond (*Dictionary of British and Irish Botanists and horticulturists* .... 1994) which reads:

R.S. Wishart (– 1924)
Herb. at Glasgow Univ.

In 1994, in a Dublin second-hand book-shop, I purchased for 20 p. a copy of *Botany* (pp.i-xiv, 1-226) by R.S. Wishart. It was published in 1910 by Hodder and Stoughton, London in the Self-Educator Series. The stated intention of the work was 'to help those who wish to learn a little more about plants... and to encourage practical work'

The book deals with the structure of all parts of the plant, with pollination, germination and plant nutrition. The second part is devoted to classification and the major plant families. The whole is illustrated with simple line drawings by the author.

On page 199, regarding *Primula scotica*, Wishart writes:

> " ...is confined to the extreme north of Scotland. It has bluish-purple flowers and is very pretty, but it usually resents any attempts at cultivation, and it specially objects to be taken in by southerns [sic]. An attempt to grow about a dozen plants near Glasgow a few years ago was quite unsuccessful, and by the third year they had all disappeared.'

The book is a good guide to basic plant information. There is no mention of habitat or ecology. A footnote indicates that R.S. Wishart also published in *Science Gossip* in 1887.

MAURA SCANNELL, Dublin 4

NEWS FROM THE NATURAL HISTORY MUSEUM

Following the success of the two Open Days held earlier in the year, a further one has been arranged for Saturday 4 November.

This will give participants the opportunity to use the Museum's facilities to identify any odd plants which they have come across during the summer, or get to know groups of plants which they find confusing. We hope that Eric Clement and Mike Mullin will be joining us so that we can benefit from their wide-ranging expertise.

The day will start at 10.30 p.m. No charge will be made, but people wanting to attend are asked to contact me in advance giving some indication of their interests.

ROY VICKERY, Department of Botany, The Natural History Museum, Cromwell Road, LONDON, SW7 SBD.

DIALECT PLANT-NAMES

This continues from *BSBI News* **68** the list of names collected since January 1992.

Broadway leaves – *Plantago major*, greater plantain: name used by 'older Cotswold gardeners'. [Cheltenham, Gloucestershire, November 1993].

Buggi-flower – *Silene uniflora*, sea campion. [Lerwick, Shetland, March 1994].

Bull daisy – *Leucanthemum vulgare*, oxeye daisy. Suffolk. [East Tuddenham, Norfolk, October 1994].

Bullems – *Prunus spinosa*, blackthorn, fruits. [Plymouth, Devon, January 1993].

Bullies – *Prunus spinosa*, blackthorn, fruits. [Alvingham, Lincolnshire, October 1994].

Butter balls – *Trollius europaeus*, globeflower. [Lerwick, Shetland, March 1994].

Canker – *Papaver rhoeas*, common poppy. [Cinderford, Gloucestershire, November 1993].

Canker weed – *Senecio jacobaea*, ragwort. Suffolk. [East Tuddenham, Norfolk, October 1994].

Catch rogue – *Galium aparine*, goosegrass: 'due to its roughness and clinging'. [Felmersham, Bedfordshire, April 1993].

Cat's eyes – *Veronica chamaedrys*, germander speedwell. Staffordshire. [Penzance, Cornwall, June 1995].

Cat's hair – *Spergula arvensis*, corn spurrey. [Truro, Cornwall, August 1992].

Thanks to Doris Aitkin, Alec Bull, Rhoda Bulter, Brian Dawson, Jessie Kurak, Elsie Olivey, Cicely Stanley, W. Gerald Tremewan, and John Yiend for their contributions. Further names and any comments would be gratefully received.

ROY VICKERY, 12 Eastwood Street, LONDON, SW16 6PX.

PLANT IDENTIFICATION COURSES

In June I ran a weekend course on Umbellifers at Preston Montford Field Study Centre in Shropshire. It had been advertised by both the FSC and the BSBI (with a discount for BSBI members) and, what was most encouraging, 15 of the 21 who attended were BSBI members, several of them young professionals who had joined in the last two or three years: even better, at the end they asked for another course next year on Crucifers.

This experience reinforced my belief that the Society has a vital role to play in helping the next generation to identify our flora, filling the gap left by the general lack, with a few notable exceptions, of whole plant based courses at University. So, I am organising a three-pronged operation to try to promote this aspect of the Society's work aimed at finding out and publicising courses members are running, determining what courses members would like and, if there are gaps, trying to fill them.

To these ends:

1. Please tell me if you are running courses anywhere in the British Isles dealing with the identification of higher (and lower) plants British or foreign, and send me the details including subject, venue, dates, cost (if known) and how to book. Would you also please tell me which other groups you could cover.
2. Let me know if you would like to attend plant identification courses and tell me which groups you are specially interested in and whether you would be willing to travel to other parts of Britain for residential courses.
3. If you are not running courses but are willing to do so tell me which subjects you could cover and your teaching experience. Then, if there are is enough demand and you would like me to, I will try to help you find a venue, a date and negotiate a reasonable fee.

The result of this exercise will be the preparation of an annual list of plant identification courses which I would hope to have ready before the end of each year, beginning this winter. If you would like a copy

please send an A5 stamped and addressed (19p) envelope to me at the address below. When the courses are run in collaboration with the BSBI it is hoped to arrange a small reduction in the cost (e.g. £10 off).

NB Field Centres are becoming increasingly comfortable: several have en suite rooms and there is generally a bar – and no washing up! Spouses can often find another course more to their interest going on at the same time.

FRANKLYN PERRING, Green Acre, Wood Lane, OUNDLE, Peterborough PE8 5TP.

COUP DE DAFFS?

From the Minutes of the Wild Plant Protection Board, 1934 : for discussion at the last meeting, Lord Farrer's letter which:

> 'complains of ladies jumping over a fence out of a Rolls-Royce and picking 500 daffodils that his father had planted along a stream-bank on the Dorking – Guildford road for the pleasure of passers-by. His friends near Paris plant sham primroses and daffs among the real ones which, if picked, go off with a bang and cover the marauder with tell-tale dust and pricks which develop the next day into neat red pimples.'

At the meeting, the question was raised as to whether this is legal under the Man Trap Act in GB!

MARTIN J WIGGINTON, JNCC, Peterborough

A NATIONAL MONITORING SCHEME

Simon Leach (*BSBI News* **69**: 35-36, April 1995) appealed for a Common Plant Census to enable local changes to be seen in a wider perspective and to provide a better indication of the changing condition and frequency of species within recording units. While wholeheartedly endorsing his appeal, it does raise a number of important questions that will need to be answered before any monitoring can be undertaken. The first is, what scheme to use? There are several already in use, such as the one used on the Environmental Change Network sites and that devised by the Unit of Vegetation Science, Lancaster University. It is important however, that a standardised methodology is adopted in order to allow cross-site comparisons.

The decision on an appropriate method will partly depend on the purpose of the scheme, but also on the resources available. A number of purposes could be envisaged, such as the monitoring of habitat composition or particular species *per se*, or it could be widened to examine the relationship between these and climate or management practices. A further related question to be addressed is, whether to monitor all species in a given habitat, or only selected indicator or rare plants?

Having decided what to monitor, the question is what to record? Should the species be recorded on a presence and absence basis only, or should some measure of frequency or abundance be included? What other environmental variables would be useful in interpreting species' distributions and any changes that may be detected? The question of plot size is also relevant, as what is appropriate for woodland, certainly is not for grassland. The timing of recording may also be critical in the detection of certain species which have a relatively short life cycle.

The questions are almost endless, but they are ones that botanists have grappled with at various times and to which there are some answers. We should not let the inherent difficulties deter us, especially as there are undoubted benefits. These would include a (hopefully) consistent database at the national level on the local distribution and condition of species and habitats, which could act as a baseline against which future changes could be measured and which could aid in the interpretation of inter-annual fluctuations. Many researchers are advocating the establishment of long-term monitoring programmes and up until now most action has been piecemeal, so some co-ordinated action is now needed. The big remaining question is, 'who is going to bell the cat'. Is the BSBI interested?

PAM M. BERRY, Environmental Change Unit, 1A Mansfield Road, OXFORD, OX1 3TB.

NATIONALLY SCARCE SPECIES AND GOOD AND BAD YEARS

In my book, these subjects are associated and I still believe habitat recording is more important than recording all species on a 10 km square basis. Most 'Scarce Species' have a highly specialised habitat on which they are dependent and most are also dependent on other, not always obvious, factors which give them fluctuating populations. In the 'good years' they may appear in atypical habitats but are probably short-lived in them. A recent example I have seen is the expansion of a *Primula scotica* colony westward, i.e., against the prevailing wind, into a dense *Plantago/Armeria* sward where it is unlikely to survive for more than the life span of the individual plants. (*Primula scotica* has had a 'Good' period for the last 4-5 years).

Concentrating the recording of individual species over a specific 'one-off' period may result in a misleading interpretation. Have 'additional' records been due to previous under-recording or is the species having a 'good year'? Does the density of a species indicate 'better management' or a 'good year'? If those species which are confined to less than 100 10-km squares are abundant within them, is it because their specific habitat is confined to those squares? If so, surely we need to know more about that habitat?

I still fail to see how recording the 10 km distribution of ALL species every half-century is giving much conservation information. It may be claimed that BSBI members do not LIKE habitat recording or that, especially with some of the new systems, e.g. NVC, it is too specialised. Nevertheless it seems to me that small species associations associated with many Scarce Species are easy to recognise. Normally, *Rorippa islandica* always grows with *Gnaphalium uliginosum* and *Potentilla anserina*. I have never seen *Ophioglossum azoricum* in a habitat which does not include *Empetrum nigrum* and *Primula scotica* is closely associated with *Carex flacca*, *Festuca rubra*, *Agrostis capillaris*, *Plantago maritima* and one of a few *Euphrasia* species. I am sure members studying other Scarce Species will be aware of similar information. Re-introduction cannot work without the re-introduction of the required habitat; surely it is better that the habitat is known and protected in the first case?

ELAINE R. BULLARD MBE, Toftwood, KIRKWALL, Orkney KW15 1SB

PARSLEY SAUCE

I read Roy Vickery's assortment of none-too-complimentary local names for Cow Parsley (*Anthriscus sylvestris*) with some amusement and a touch of resignation.

CP never seemed to do much harm to my mother when collected as food for our wartime rabbits. It was, however, very bad for bunnies' tummies when fed exclusively, especially if damp.

As for the lady who once asked me to arrange the preservation from mowing of a long roadside ribbon of Queen Anne's Lace, as it would enhance her daughter's bridal ride to church, one hesitates to imagine what may have happened to her, and to the other females in the family.

More immediately, I think this compilation of uncomplimentary tags for Cow Parsley 'and/or other coarse umbelliferous weeds' may hold a clue to the causes of an Exhibition Meeting phenomenon that I have experienced regularly, especially when occupying a place near the exhibition entrance:

Distinguished (often professorial) member enters at the trot, briefly consults his programme, glances momentarily at the umbelliferous exhibit, glares at me over his half-glasses and scuttles on wordless to the joys of *Atriplex*, *Chenopodium* or *Polygonum*.

Clearly then, any bespectacled, rabbit-raising professor, whose daughter Anne is contemplating marriage, and who has connections at Wickham (Cambs) should avoid *A. sylvestris* at all costs. For the rest, I must say, it would be good if members took a little more interest in the fine, upstanding, nay splendid umbellifers that I cart or lug up to BM or wherever annually. It's a long way from Gosport to Leicester!

MERVYN SOUTHAM, 72 Fareham Road, GOSPORT PO13 0AG

FLOWERING OF AQUATIC PLANTS IN 1995

One of the diverting by-products of the BSBI Umbellifer course in Shropshire at the beginning of July, during a visit to Brown Moss Local Nature Reserve south of Whitchurch, was the discovery by John Bromley of flowering material of both *Lemna minor* (Common Duckweed) and *L. trisulca* (Ivy-leaved Duckweed), no doubt a response to a long period of above average temperatures. This is the first time I have seen flowers of *Lemna* in v.c. 40. It would be interesting to know whether other members have seen flowering *Lemna* this summer, and where the northern limit was in this (and other) years.

FRANKLYN PERRING, Green Acre, Wood Lane, OUNDLE, Peterborough PE8 5TP.

CORNWALL'S FLORA ON THE INTERNET

The Checklist of the Flowering Plants and Ferns of Cornwall and the Isles of Scilly produced by the Vice-county recorders for Cornwall (Rosaline Murphy and Colin French) has been converted into HTML format and been placed on the Internet as part of the World Wide Web pages of the Cornish Biological Records Unit. This version has been supplemented by the provision of more than 300 distribution maps as well as a list of the more recent additions to the Flora of Cornwall. It can be accessed at http://www.ex.ac.uk/~cnfrench/ics/cbru/cbruhome.htm.

COLIN FRENCH, Cornish Biological Records Unit, Institute of Cornish Studies, Trevithick Centre, Trevenson Road, Pool, REDRUTH, Kernow TR15 3PL

IN PRAISE OF LAWNS

In last week's *Independent on Sunday* (2 July) Richard Mabey visited a colony of *Ophrys apifera* (Bee Orchid) growing in a lawn 'slap in the middle of town' (he doesn't say which town). It is always exciting when something like this pops up from nowhere, especially when the place it does its 'popping' is as improbable as this lady' s bungalow lawn. Which brings me to my aunt, Margery Coulter, who's had a few things popping up lately on *her* bungalow lawn...

This particular patch of grass is on the northern outskirts of Reading, Berkshire (just inside v.c. 23). The bungalow was built in 1959 on land previously used as a tree nursery. My aunt moved there in 1971, but it wasn't until about 1987 that she decided to leave uncut a tiny area of lawn (about 15m^2) beneath an apple tree. After a couple of years of 'hay-meadow' management she was rewarded with fine displays of *Leucanthemum vulgare* (Oxeye Daisy) and, encouraged by this, in 1992 she relaxed the mowing regime on a further 60m^2. The following year, to her astonishment, a single plant of *Anacamptis pyramidalis* (Pyramidal Orchid) appeared. The last couple of summers there have been two plants – one inside 'the meadow', the other in the lawn proper (duly fenced off to keep the gardener from mowing it down).

The next surprise came when we looked at the other plants growing there. We found 65 species in all, including *Primula veris* (Cowslip) (presumed to have been self-sown from an old introduction), *Lotus corniculatus* (Bird's-foot-trefoil), *Fragaria vesca* (Wild Strawberry), *Daucus carota* (Wild Carrot) and *Viola hirta* (Hairy Violet). The lawn's 'grassiness' was made up of no fewer than 17 species, including *Helictotrichon pubescens* (Downy Oat-grass), *Trisetum flavescens* (Yellow Oat-grass) and *Briza media* (Quaking Grass). In 'community' terms the lawn clearly belongs to the calcareous variant of the *Cynosurus cristatus* - *Centaurea nigra* grassland (MG5b to NVC aficionados), a community 'becoming increasingly rare as a result of agricultural improvement' (Rodwell 1992). It is the stuff of which SSSIs are made, and not at all what one would expect to find on a bungalow lawn in Caversham!

And still this little patch of suburban 'wildness' throws up new surprises. I had a telephone call the other week announcing the arrival of *Listera ovata* (Common Twayblade), a species supposedly 12-15

years old at first flowering – which means that this one must have been growing there for several years before that part of the lawn was returned to meadow-land.

I say *returned* to meadow-land because we suspect that the turves used to create the lawn in 1959 were taken from a real meadow or patch of chalk grassland. This cannot be proved, but how else can one explain its extraordinary species-richness? Most of the species have presumably been there all along, persisting unnoticed through three decades of conventional (i.e. ruthless!) lawn management; removing the lawn mower has simply allowed them to 'become visible' again. We are already wondering what next year holds in store...!

Reference

Rodwell, J.S. (1992). *British Plant Communities. Volume 3: Grasslands and Montane Communities.* Cambridge University Press, Cambridge.

SIMON LEACH, 15 Trinity Street, TAUNTON TA1 3JG

LEGOUSIA SPECULUM-VENERIS – A POSTSCRIPT

Through the kindness of Mr Alan Showler, in bringing me some old papers, I have discovered that E.W. Willis actually first found the Wootton St Lawrence plant in 1916, not 1945. (See *BSBI News* **66**: 38). It was wrongly identified, first by A.B. Rendle at the British Museum (Natural History), as *Specularia hybrida*, and next by J.F. Rayner, the Southampton botanist, as *Specularia falcata* A.DC.

LADY ANNE BREWIS, Benhams House, Benhams Lane, Blackmoor, LISS, Hants. GU33 6BE

ORCHID SEED DISPERSAL

I was very interested in Elaine Bullard's observation in the BSBI *Scottish Newsletter* **17** 1995, on the spread of *Primula scotica* in Orkney (see also p. 17). Elaine reports that in the 'recent (very welcome) population explosion in some colonies the spread has been in an unusual direction e.g. towards the prevailing wind... ' When counting winter rosettes of *Himantoglossum hircinum*, Lizard Orchid, on the Sussex coast with Breda and Ernie Burt we made the same observation. The seedling rosettes were neatly in an extended triangle tapering *south-west* from plants which had flowered the previous year. The prevailing wind here is strongly S.W. and at first we were surprised to see that seedlings had grown in this direction from the parent plant. On reflection, and thinking of the strength of these prevailing south-westers, we realised that any seed released into the gusts would be likely to be blown a distance away from the habitat (and possibly away from the essential fungus in the soil?); whereas on days with a slight north-east breeze seed could be dropped close to the plant colony, with the fungus likely to be present. The prevailing S.W. winds bringing high humidity, and often rain, could be associated with delaying the release of seeds from the capsules?

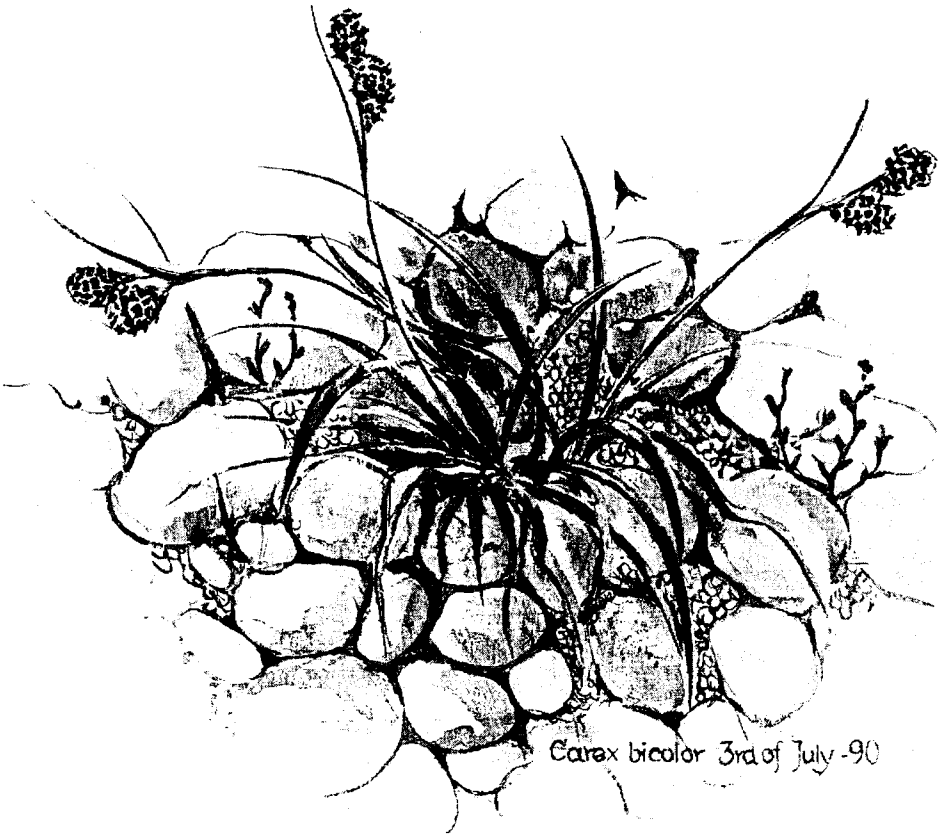
MARY BRIGGS, Hon. General Secretary

CAREX BICOLOR

When the late Dick David booked on a holiday to Wengen, he had a request: to see *Carex bicolor* in its natural habitat. As an editor of *Sedges of the British Isles* ed. 2, 1982, Dick had the task of considering the authenticity of the reported *C. bicolor* on Rhum and concluded that it was unlikely to occur in Britain, but he was anxious to see it in its 'very special habitat' in N. Europe. Having looked at his maps Dick then thought that his locality was too far from Wengen, and he spoke sadly of abandoning the project. However my Swiss botanical contacts had referred me to the Pharmacist at that time in

Kanderstag and we arranged to meet. In his office behind the Pharmacy he had spread a selection of *Carex* herbarium sheets – including *C. bicolor* – on the table for us, and we were given clear directions to the site.

Eva Zache was also with us and we followed the ridge to where the valley narrowed and climbed – where the ridge and the river levelled out there were some shingle flats at the river's edge. Dick was down in a flash, and in the second 'bay' – success ..... *Carex bicolor*! (See photo page 46). Eva drew a quick sketch, and a later painting Dick framed for his desk in his study.



Carex bicolor del. Eva Zache © 1990

As we turned back the light rain turned to sleet, snow and bitter wind – but could not quench our glow of success and pleasure, and hot soup, etc., in the snug Rifugio added physical warmth to this satisfactory expedition.

When we returned to the Pharmacy with our thanks, Herr Ruegsegger told us that his fine botanical library lacked one volume: *Kryptogamen – Flora von Sachsen, der Ober-Lausitz, Thüringen und Nordböhmen*, Dr L. Rabenhorst. Leipzig 1838. We all offered to try to trace this for him – it was Eva whose bookseller friend in Stockholm had a copy which went to Kanderstag with our thanks.

MARY BRIGGS, Hon. General Secretary

KING-SIZE BLUEBELLS

I recently came across an isolated clump of very large bluebells (*Hyacinthoides non-scripta*) at the base of a ditch in a local meadow. Their average height was 69 cm with a leaf length of 47 cm and 25 mm at their widest point. The stems were unusually stout and all flowering parts correspondingly large. There were no obvious characters to relate the plants to the hybrid with *H. hispanica*.

It may also be a dubious exercise to ascribe their large size to deep shade, as hundreds of other specimens growing in similar situations in other localities simply did not measure up. Even allowing for variation which is a common feature of all growth forms, I suggest these plants qualify for the title – King-size Bluebells.

MICHAEL O'SULLIVAN, Knockavota, MILLTOWN, Co. Kerry, Ireland

TRAGOPOGON IN SUFFOLK

My interest in conserving the flora and fauna of roadside verges in Suffolk for the past 15 or more years has resulted in my noticing a puzzling characteristic of *Tragopogon pratensis* (Goat's-beard) and *T. porrifolius* (Salsify). *T. pratensis* is common on grassy verges but does not survive on them when cut in late spring, whilst *T. porrifolius* survives and flowers abundantly on verges so cut. I discovered the reason for this different behaviour when I grew both species in my garden at Nayland. I noticed that the young basal leaves of *T. pratensis* were erect and would be cut off with the first verge cut in the spring, whilst the similar leaves of *T. porrifolius* are prostrate and escape the cutter. I find this differential character is not mentioned in the Floras I have consulted.

EDGAR MILNE-REDHEAD, Martins, Great Horkesley, COLCHESTER CO6 4AH

SCARCE PLANTS IN BRITAIN UNDER-RECORDED

Having been interested for some years in the flora of Sark, I looked at which taxa were entered on the maps in the relevant square and their given status. The following taxa are given as having no records since 1970. I give their present status (up to 1994):

Briza minor	Locally frequent	*Orobanche hederae*	Frequent
Chamaemelum nobile	Common	*Parentucellia viscosus*	Common
Crassula tillaea	Occasional	*Scilla autumnalis*	Common
Cyperus longus	Rare	*Teesdalia nudicaulis*	Common
Dianthus armeria	Rare	*Trifolium glomeratum*	Occasional
Erodium moschatus	Occasional	*Trifolium occidentale*	Occasional
Euphorbia portlandica	Locally common	*Trifolium ornithopodioides*	Occasional
Fumaria capreolata	Occasional	*Trifolium suffocatum*	Occasional
Inula crithmoides	Rare	*Zostera marina*	Rare
Lavatera arborea	Occasional		

On the other side of the balance, the following pre-1970 records were erroneous, so have not been lost: *Medicago polymorpha*, *Vulpia fasciculata*. One more pre-1970 record was not authenticated: *Ranunculus baudotii*.

The above list of errors make other records on other maps erroneous, such as 'species lost'. I wonder how many other squares in the British Isles have an equal number of under-recorded species?

ROGER M. VEALL, 1 Plant's Close, East Wellow, ROMSEY, Hants SO51 6AW

[Dr Veall's comments serve to underline the need to let vice-county recorders know of **all** your records (which *he* always does!), do not assume that they already have them, make the effort and send them in yourself, and encourage your recorder to pass them on! This will be especially important for the 'Atlas 2000' project when the help of the whole membership is needed if it is to be a success. Ed.]

PLANTLIFE POWERS ON

Less than seven years ago Plantlife was just an idea without even a name. Today, under Dr Jane Smart as Director, it is one of the fastest-growing charities in the country, whose membership in the last 2½ years has practically quintupled to 6,000, and which is about to stage its first international plant conservation conference, 'PLANTA EUROPA' this September in Hyères, France: and this despite the worst recession in 60 years.

What does this show?

For me, coming from the business world, it confirms what first struck me on encountering Plantlife – that the notion of a populist plant conservation charity à la RSPB was one of the most brilliant marketing concepts ever. It identified a well-defined – and colossal – 'gap in the market', fulfilled a real need (the statistics on U.K. species – and habitat-loss proved this with distressing ease), and the subject-matter, endangered wild plants, appealed strongly to the emotions not just of experts but of ordinary people.

In short, an absolute winner of an idea. I still find it extraordinary that such an organisation did not exist in Britain decades ago.

But brilliant concepts alone don't make things happen. You need people. And here is another reason for this remarkable growth: the number, quality, energy and enthusiasm of the people who have given so much time and, often, money to help Plantlife succeed. Not just the great and good, the movers and the shakers (though a Plantlife luminaries list would read like a green Who's Who), but keen members and volunteers who cheerfully pitch in to do the usual things you find going on in charities: keying in data, (for example, from the recent Mistletoe Survey, conducted in partnership with the BSBI), selling this, wrapping that and posting the other. Their – your – help has been invaluable, and as a result our little suite of offices in the Natural History Museum constantly fizzes with activity. Our full-time and very stretched staff of five could not possibly have achieved all that Plantlife has done on our own.

I say 'your' help because BSBI members make up Plantlife's core of members and volunteers. Both in the very early days and more recently you have responded in large numbers to requests to join. About a third of the members of the BSBI have also become members of Plantlife. To you Plantlife is deeply grateful: without you we could not have started. And to those of you who have not taken the plunge, may I urge you to do so, and to support this excellent cause! (Individual membership £15, families/groups £20, cheques payable to Plantlife, credit cards welcome.)

'Fine', you may say, 'but **why** is it excellent? What is Plantlife actually achieving for the benefit of wild plants?'

First, under the '**Back from the Brink**' project, Plantlife has worked to ensure that 20 species of wild plant continue to survive at historic sites where they were highly threatened or had apparently disappeared. With some species the results have been spectacular. To mention just two: Starfruit (*Damasonium alisma*), which had been found at just one pond-site, has since been 'brought back' to appear in four. And through Plantlife management work Brown Galingale (*Cyperus fuscus*), which had disappeared from one Surrey site completely, reappeared in hundreds the following year.

We raised much of the money to fund 'Back from the Brink' from external bodies: private industry (Lloyds Bank, ICI, Whitbread, Reader's Digest), the statutory agencies and charitable trusts. But Plantlife members have also been phenomenally generous in this regard, contributing £15,000 to our recent postal appeal, and to them (or should I say, you), sincere thanks are due.

Species in the 'Back from the Brink' programme include:

Ground-pine	*Ajuga chamaepitys*
Rough Marsh-mallow	*Althaea hirsuta*
Tower Mustard	*Arabis glabra*
Starved Wood-sedge	*Carex depauperata*
Narrow-leaved Helleborine	*Cephalanthera longifolia*
Grey Mouse-ear	*Cerastium brachypetalum*
Chamomile	*Chamaemelum nobile*
Brown Galingale	*Cyperus fuscus*
Starfruit	*Damasonium alisma*
Young's Helleborine	*Epipactis youngiana*
Narrow-leaved Cudweed	*Filago gallica*
Red-tipped Cudweed	*Filago lutescens*
Broad-leaved Cudweed	*Filago pyramidata*
Early Gentian	*Gentianella anglica*
Toadflax-leaved St John's-wort	*Hypericum linariifolium*
Sticky Catchfly	*Lychnis viscaria*
Adder's-tongue Spearwort	*Ranunculus ophioglossifolius*
Shore Dock	*Rumex rupestris*
Meadow Clary	*Salvia pratensis*
Perfoliate Penny-cress	*Thlaspi perfoliatum*

Second, **plant nature reserves**. On the principle that one of the most effective ways to protect a threatened habitat is to buy it and then make sure it is managed in a plant-friendly fashion, we have acquired unspoilt, botanically rich areas of land – mostly meadows – at ten sites. These are in Buckinghamshire, Cornwall, Gwynedd, Herefordshire, the Isle of Man, Kent (Queendown Warren, one of the best orchid sites in the U.K.), Suffolk, West Sussex, Worcestershire and Yorkshire. Five further sites are in various stages of purchase, in Cumbria, Herefordshire, Staffordshire, Yorkshire and another in Worcestershire.

Again, Plantlife raised much of the money from private industry (Timotei shampoo, part of Unilever), an incidental benefit from doing which is that the word about the need for plant conservation thereby percolates into highly influential circles.

Looking to the future, Plantlife perceives that one of the most serious threats to wild plants over the next decades lies in the likely decline in the number of people who know and care about them best: expert field botanists like yourselves. This is one of the less obvious, but nevertheless vitally important, reasons for Plantlife's emphasis on recruiting members from the ranks of ordinary people: those who may not know the intimate anatomical details of a cowslip but who will still be heartbroken if a field of them is ploughed up.

For we want, via our Magazine, via 'Back from the Brink' conservation sessions and via our campaigning on peat and other issues, to enthuse ordinary people about plants and to make them very angry indeed about plants' and their habitats' continuing destruction; so much so that some of them – or their children – will take the trouble to become botanists themselves, continue the battle for plant conservation and – why not? – join the BSBI.

After all, if we can bring botanists themselves 'Back from the Brink', what better way could there be to thank the organisation, whose President was Plantlife's first Treasurer and is still a Plantlife Trustee, which has made such a significant contribution to Plantlife's success?

DAVID REES-JONES, Marketing Manager, PLANTLIFE

DIVIDED WE CLIMB

At least five members of the family Convolvulaceae are prone to throw up splitting images of themselves, that is to say occasional examples with corollas pentamerously cut to the base. I would like to record that all have occurred within a half-mile radius of my home in South Tottenham.

Calystegia silvatica var. *quinquepartita*.

Until 1986, this entirely covered a long garden fence just off St Ann's Road in South Tottenham, v.c. 21. Its large star-like flowers were quite as spectacular as a choice *Clematis*.

Calystegia sepium f. *schizoflora*.

I found this in 1987 clambering over dense vegetation by the Horseshoe Thicket on Walthamstow Marshes, v.c. 18. It is still there. (But why is it given different infraspecific status as 'forma?').

Calystegia sepium × *C. silvatica* (*C.* × *lucana*)

I found an example with irregular lobing riding tall scrub in Abney Park Cemetery, Stoke Newington, v.c. 21, in 1990. It is still there too.

Calystegia sepium × *C. pulchra* (*C.* × *scanica*)

I found an example also with irregular lobing winding itself around the wire fence of St Ignatius Church, Tottenham High Road, v.c. 21 in 1995. Plants with normal corollas are plentiful at the north end of Walthamstow Marshes, close to the Coppermill Stream.

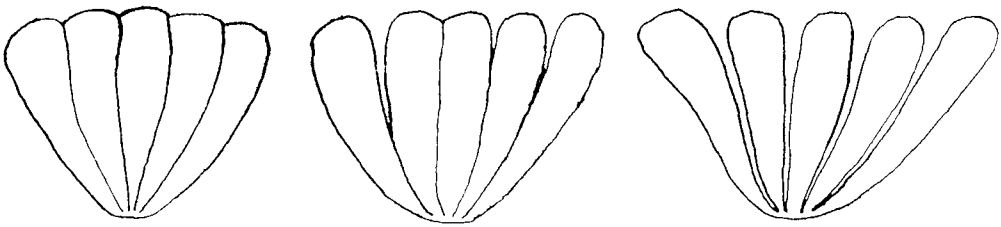
Convolvulus arvensis var. *stonestreetii*

I found a vigorous patch with variable lobing on a trodden council-flat lawn also by Tottenham High Road in 1995. Its small star-like flowers are delicate and very attractive

The terms 'irregular' and 'variable' denote plants where some lobes may be cut to the base, some may be cut part of the way and some may remain united to the tip, all on the same flower. With the two species of *Calystegia*, completely schizoid aberrations were noted; with their two hybrids the lobing was different in degree from sinus to sinus. *Convolvulus arvensis* combined the two morphologies on single plants, with some flowers bearing each sinus cut right down to the base in truly actinomorphic pattern, and other flowers showing irregularities of division.

The following diagrams are schematic and represent flattened flowers. They should serve to clarify the above descriptions but do not in themselves attempt to illustrate one genus as distinct from the other.

COROLLAS IN CONVOLVULACEAE



Normal Irregular Schizoid

del. B. Wurzell

I wonder if anyone could direct me to a schizoid *Calystegia pulchra*, or to any forms of *C. silvatica* × *C. pulchra* (*C.* × *howittiorum*), in the London area? Also does anyone know the trick of getting wild-collected *Calystegia* seed to germinate? I have tried a number of times in a number of ways with no luck. And I do want to see what their seedlings look like.

BRIAN WURZELL, 47 Rostrevor Avenue, Tottenham, LONDON Ni5 6LA.

MISTLETOE SURVEY

MISTLETOE SURVEY – SEPTEMBER UPDATE

The coming winter will be the last opportunity to send in mistletoe records. Many thanks to all who have sent in data so far, both to me and to Plantlife. Analysis so far suggests broad agreement with the patterns of distribution and host preference found in the 1969/70 survey. Cultivated apple is still the most frequent host and the majority of records are in Gloucestershire, Herefordshire and Worcestershire.

All records are of value but we are particularly short of data from Wales, Scotland and Ireland as well as the North and East of England. Null returns from these areas are as welcome as positive sightings. More observations and anecdotes about trade, harvesting and tradition are also welcome.

For more recording cards or information on the results so far please send an SAE.

JONATHAN BRIGGS, BSBI Mistletoe Project, 2 Ledgemoor, Watledge, NAILSWORTH, Glous. GL6 0AU.

THE DISTRIBUTION OF MISTLETOE IN RELATION TO CALCAREOUS SOILS – SOME THOUGHTS

I was interested to read the note (*BSBI News* **69**: 40-41) about the supposedly greater abundance of mistletoe (*Viscum album*) on calcareous soils. I, too, have wondered about the claim made in Clapham, Tutin and Moore (1987) that mistletoe is 'more abundant on calcareous soils'. I do not know what evidence formed the basis for the original claim, but Carol Hora's note has induced me to look at the distribution map (*BSBI News* **67**: 12) in a little more detail.

One (admittedly rather crude) way of studying the abundance of mistletoe in relation to soil type is to look for an association between the presence or absence of mistletoe within a 10 km square and the geology of that square, and for these purposes, I compared the mistletoe distribution map with the Geology ('Chalks and Limestones') overlay in Perring and Walters (1962). This method is somewhat crude in that it uses presence/absence data as a substitute for abundance, and it uses data on solid geology which may not accurately reflect the status of the soils within each 10 km square. But these data are the best I have at my disposal, and they may help to indicate trends. Taking presence/absence and geological data for all 10 km squares on the British mainland up to the northern limit of the 100 km squares NY and NZ (but omitting NX within which mistletoe seems hardly to occur), I obtained the data summarised in Table 1. This appears to show that mistletoe is found significantly more frequently in 'calcareous' squares than would be expected by chance, but I suspect that this association tells us little about the main factors influencing the distribution of the plant. Mistletoe requires fairly high summer temperatures (Godwin, 1975) and it is presumably for this reason that it is absent from many northern or upland squares (where host plants may also be less abundant). Generally speaking, however, fewer of these squares are calcareous, perhaps giving rise to an apparent preference of mistletoe for calcareous soils. When a similar analysis to the above is performed on the 10 km squares within the 100 km squares SO, SP, ST, SU, TL and TQ (squares which cover the 'core' of the mistletoe's distribution in central and southern England), the apparent preference for calcareous squares disappears (see Table 2). Taken individually, there is a positive and significant ($p < 0.05$) association with calcareous squares within TQ, and a negative and significant ($p < 0.05$) correlation with calcareous squares within SU. None of the other squares shows significant results one way or the other. Taken overall, there appears to be no association with calcareous squares using this method.

Despite the limitations of the above approach, it seems to me that the apparent preference of mistletoe for calcareous soils is likely to disappear when the distribution of the species is studied at a finer scale. In Bedfordshire (Dony, 1976), for example, mistletoe (recorded on a tetrad basis) appears to be at least as frequent on the acidic Lower Greensand (or neutral clays) as on the chalk or Great

Oolite, and I can find no other mention of mistletoe being more abundant on calcareous soils in any of my local or national floras.

The soil on which a tree is growing can certainly affect its suitability as a substrate for some epiphytes. This has been demonstrated in the case of certain lichens for example (e.g. Gauslaa, 1995), where the cause appears to be chemical differences in exudates from the tree affecting the mineral status of the bark. The *Lobarion* lichen community is often restricted to trees growing on a calcium-rich soil in areas affected by acid rain (Gauslaa, 1995). But would such differences affect mistletoe in a similar way? The fact that mistletoe can grow on widely different host trees on both acidic and calcareous soils seems to suggest that its preference (if any) for the latter must be slight in comparison to its other ecological requirements. Bannister (1989) has, however, shown that in the case of nitrogen, the content in both cryptic and non-cryptic mistletoes in Australia and New Zealand is significantly related to host nitrogen content, so I suppose that some soil mineral effects may be present in the case of *Viscum album*, over and above any affects on the distribution and abundance of host species.

The mistletoe survey will no doubt give us additional information about its frequency in different parts of the country, and its ecological preferences. In the meantime, can other botanists with a greater knowledge of mistletoe provide more detailed information?

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Godwin, H. (1975). *The History of the British Flora*. 2nd Edition. Cambridge University Press.

Gauslaa, Y. (1995). The *Lobarion*, an epiphytic community of ancient forests threatened by acid rain. *Lichenologist* **27**: 59 - 76.

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	Viscum present	Viscum absent	Total
Calcareous	348	378	726
Non-calcareous	341	568	909
Total	689	946	1635

$G = 17.97$, $p < 0.005$

TABLE 1. Association data for *Viscum album* in all 10 km squares (except within NX) south of the northern limit of the 100 km squares NY and NZ.

	Viscum present	*Viscum* absent	Total
Calcareous	240	124	364
Non-calcareous	150	80	230
Total	390	204	594

$G = 0.0321$, ns.

TABLE 2. Association data for Viscum album in all 10 km squares within the 100 km squares SO, SP, ST, SU, TL & TQ.

RICHARD TOFTS, 3 Cranfield Road, WOBURN SANDS, Buckinghamshire MK17 8UW

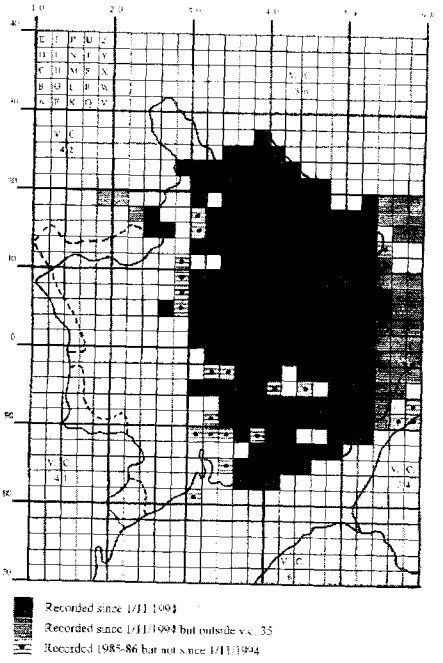
THE MISTLETOE SURVEY 1994-96 IN GWENT

The map below shows the known distribution of mistletoe in my county of Gwent (v.c. 35). This has been assembled with the help of 12 regular recorders and 17 casuals. All 25 Hectads (10 km squares) have been searched. It would have been helpful to have Franklyn Perring's driver and navigator so that a Hectad could be finished in a day, a Utopian dream!

There is a noticeable difference between western and eastern halves of the vice-county, partially explained by the west being hillier. As Shirley Rippon has found mistletoe on hawthorn, above the Vale of Ewyas, at c.350 m, it is not the complete answer. Also, there is none on the low land of the coastal levels between Newport and Cardiff nor in the western valleys. Large woodlands are devoid of it. In the last twenty years, there has been an undeniable reduction in quantity, associated with the removal of many of the old orchards. Urbanisation, particularly around Newport and Abergavenny has also had a detrimental effect and the escalating price of mistletoe in shops has increased the raids on low-growing branches. In spite of this, there is still a healthy population in the vice-county.

Twenty-four different hosts have been recorded. Rather surprising are six Ash (*Fraxinus excelsior*), seven Weeping Willow (*?Salix × sepulcralis*), at least four Hazel (*Corylus avellana*) and two Goat Willow (*Salix caprea*). Only one tree of each of the following acts as host: Horse Chestnut (*Aesculus hippocastanum*), Silver Maple (*Acer saccharinum*), *Cotoneaster horizontalis*, Flowering Crab (*Malus* sp.), Rowan (*Sorbus aucuparia*; probably ornamental), Large-leaved Lime (*Tilia platyphyllos*), Pedunculate Oak (*Quercus robur*), an ornamental *Acer*, and, surely a national first, an Alder (*Alnus glutinosa), spotted* by John Gregory.

Any records west of the 30 line (on the map) and on any unusual host anywhere in the county would be welcome, in the second and final year.



Distribution of *Viscum album* in Monmouth / Gwent (v.c. 35)

TREVOR G. EVANS, La Cuesta, Mounton Road, CHEPSTOW, Gwent NP6 5BS

AN UNUSUAL MISTLETOE HOST

The current interest in mistletoe made me remember the tale, often told me by my old friend the late Robert John Welch of Belfast (he died in 1936). It appears that W.H. Phillips (1830-1923) an Ulster botanist who specialised in ferns – he wrote an excellent *List of the Ferns of Ulster* – was once talking to a Co. Down neighbour who said he had mistletoe growing in *his* garden, whereupon Phillips said 'Oh, mine grows on my gatepost!' and so it did, on a willow stump. There is no Co. Down record given in Stewart & Correy's *Flora of the North-East of Ireland*, 3rd edition edited by Paul Hackney (1992).

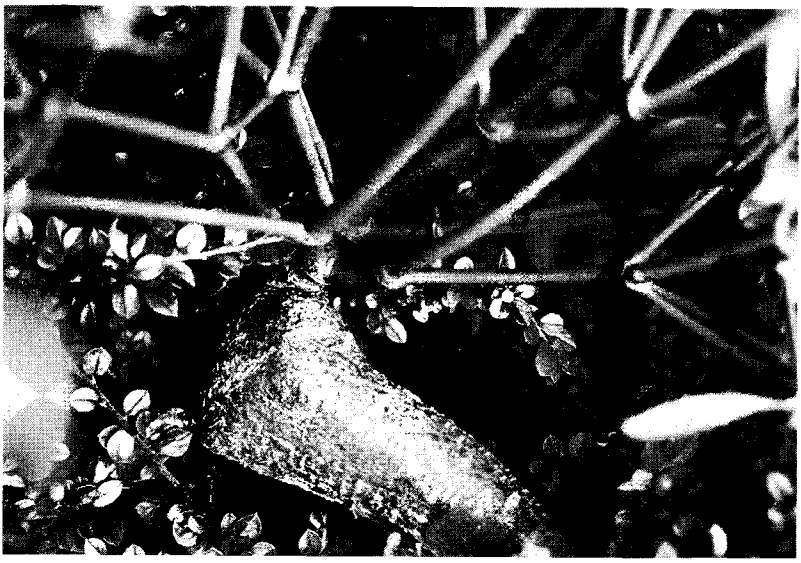
NORA McMILLAN, The Nook, Uplands Road, BROMBOROUGH, Merseyside L62 2DZ

ANOTHER UNUSUAL MISTLETOE HOST

Growing beside the front door of a farmhouse at Upton St Leonards, near Gloucester, only three feet from the ground, is a large bunch of mistletoe on *Cotoneaster horizontalis* (Wall Cotoneaster) – an unusual host. The point of fusion between the two, shown in the accompanying photograph, is clearly visible.

The original mistletoe seed, probably carried by a thrush or blackbird feeding on the cotoneaster berries, is assumed to have been transferred from an older, even larger clump of mistletoe growing in the top of a Bramley apple tree planted in the farmhouse garden about a century ago. Although blown down in high winds several years ago, this now prostrate tree continues to flower and bear fruit, as also does the mistletoe. For the lady farmer, gathering sprays of berried mistletoe for Christmas is as easy as picking garden flowers in summer!

Also on this farm, beside a pond in the corner of a field, is a fine Black Poplar.



Mistletoe on *Cotoneaster horizontalis* photo © J. Dunn 1991

JO DUNN, Flat 2, Sandford Mount, Charlbury, OXFORD OX7 3TL

RED DATA BOOK PROJECT

Criteria for inclusion of species in the 3rd edition RDB

At the start of this project, on the basis of wide-ranging consultation, we established our own criteria (founded on the broad IUCN guidelines), for the selection of species for inclusion in the third edition Red Data Book. These criteria took into account such factors as decline and threat, in addition to distribution, and were briefly discussed in *BSBI News* **63**.

However, a revision of the IUCN threatened species (Red List) categories and their qualifying criteria has been under discussion for some years. One of the aims has been to improve objectivity by incorporating a more quantitative element into the selection criteria. Measures of decline (both observed and projected), fragmentation, and size of populations (and their habitats) are incorporated. Now that the revision has been ratified by IUCN and published, it is clearly sensible that we adopt these revised criteria for the selection of species for the forthcoming British Red Data Book. The criteria have now been recommended by IUCN for use at the national as well as the global level.

'Red List' might be a term unfamiliar to some people. Red List species are those which are classified under the revised IUCN criteria as Critically Endangered, Endangered or Vulnerable. They are clearly the ones which are the most threatened and merit the most attention. Other species, except those which are 'Data Deficient' are classified as either 'Conservation Dependent', 'Near Threatened' or 'Least Concern' within a 'Lower Risk' category. A number of species hitherto classified as 'Rare' in Britain are likely to be included in the 'Near Threatened' group. Other sub-categories, for instance, 'Nationally Scarce' will be included in the 'Lower Risk' category. We have been compiling lists on the basis of these criteria. It seems likely that several species hitherto classified as 'Nationally Scarce' might come into the Red List category because of their steep decline.

These guidelines will be discussed at the next Plant Conservation Working Group Meeting, which BSBI attends.

Species accounts

We now have to hand some 240 completed species accounts, and these are currently being edited and amended in the light of new information received. Many thanks to all authors who have given freely of their time to write accounts of their adopted species. There are still 40 or so promised, and because time on this project is fast running on (if not out!), I should much appreciate receiving copy from other authors as soon as possible. Some other accounts are being written in-house, but there are still a few available for adoption. If anyone feels they would like to take on one or more of these, please let me know. It would be good to have 'dispersed all these by the time the next *BSBI News* appears.

List of taxa for 'adoption'

Anthyllis vulneraria subsp. *corbierei*
Carex filiformis
Cerastium nigrescens
Gnaphalium luteoalbum
Leucojum aestivum
Poa infirma
Rosa agrestis
Calamagrostis scotica
Centaurea calcitrapa
Galium spurium
Homogyne alpina
Muscari neglectum
Rorippa islandica
Saxifraga rivularis

RDB Records

There has been a steady trickle of records from vice-county Recorders and members, from Plantlife and the County Agencies, and all that have come to JNCC have been entered on to the rare plants database. We look forward to receiving all the RDB records gathered during this year's trips and excursions.

As well as records of RDB species, I would be most grateful for any and all recent records of *Carex vulpina*, *Dianthus armeria*, *Galeopsis angustifolia*, *Melampyrum cristatum*, *Myosurus minimus*, *Ranunculus arvensis*, and *Torilis arvensis* in order to help assess their current status. Some or all of these might qualify for the Red List under the revised IUCN criteria.

In the last *BSBI News* David Pearman asked that all records for England and Wales be sent to him, and Scottish records to Dr Keith Watson, Flat1/2, 31 Kelvindale Gardens, Kelvindale, Glasgow G20 8DW. Records should consist of at least – the location, a 6-figure grid reference, date, habitat, name of the recorder, and, if possible, an estimate of the population size and/or extent.

MARTIN J. WIGGINTON, JNCC, Monkstone House, City Road, PETERBOROUGH PE1 1JY
Tel. 01733-62626

ALIENS

ALIEN RECORDS

Berberis × *carminea* Ahrendt. Good-sized seedling bush on side of vertical brick river wall, Crayford, TQ/5.7, W. Kent (v.c. 16), 6/11/94, J.R. Palmer, conf. E.J. Clement. Shoots glabrous; fruit ovoid, stylose. (Not in Clement and Foster). **Hb EJC**.

Berkheya heterophylla. Hop field, Barming, W. Kent (v.c. 16), TQ/7.5, 1966, J.R. Palmer, det. J.E. Lousley. (Clement & Foster give no actual locality).

Camassia leichtlinii (Baker) Watson (Twisted Quamash). Naturalised in wildish swampy part of Danson Park, W. Kent (v.c. 16), 11/6/85, J.R. Palmer. Flowers blue, probably subsp. *suksdorfii* Greenman (Gould), A colony naturalised in rough grass of small orchard, Dene Place, W. Horsley, TQ/075.531, Surrey (v.c. 17), 30/5/66, E.J. Clement, det. D. McClintock. **Hb EJC**. (Not in Clement and Foster).

Cassinia fulvida (Golden-bush). Two 20cm specimens, perhaps seedlings, on heathland, but near where a long-demolished house once stood, Dartford Heath, TQ/5.7, W. Kent (v.c. 16), 1992, J.R. Palmer. The bushes on Raasay (see Clement & Foster p. 322) were 3 to 4 in number, about 1m high standing in a green field, status indeterminate, 30/6/79, JRP & B. Wurzell.

Clerodendrum bungei Steud. Naturalised at Blackheath, TQ/4.7, W. Kent (v.c. 16), 20/9/83, J.R. Palmer. Coming up through a 3 m wide asphalt footpath. A far-creeping nuisance in gardens. (Not in Clement and Foster).

Coreopsis stillmanii (A.Gray) S.F.Blake. The double form called 'Golden Rosette' on waste ground (former tip), Greenhithe, TQ/5.7, W. Kent (v.c. 16), 11/8/91, J.R. Palmer. (Not in Clement and Foster). **Hb EJC**.

Crepis setosa. Disturbed ground, Helsby, SJ/491.749, Cheshire (v.c. 58), 1989, P.J. Llewellyn det. G.M. Kay. Disturbed ground, Alderley Park, SJ/849.755, Cheshire (v.c. 58), 1990 & 1993, G.M. Kay.

Crepis tectorum Seeded lawn, Alderley Park, SJ/850.754, Cheshire (v.c. 58), 1989, D.J. Tinston, **Hb GMK**. New road verge, Macclesfield, SJ/910.741, Cheshire (v.c. 58), 1992, G.M. Kay.

Crocus tommasinianus var. *pictus*. Rough grassland, Crayford Marshes, half a mile from houses, TQ/5.7, W. Kent (v.c. 16), 6/3/94, J.R.Palmer (and in Darenth Wood, 1988).

Eruca vesicaria subsp. *sativa* Bare patch by canal, Church Lawton, SJ/816.562, Cheshire (v.c. 58), 1994, D.J. Tinston, conf. G.M. Kay.

Eryngium variifolium Coss. On sandy ground in thick ground cover near Swanley, TQ/5.6, W. Kent (v.c. 16), 15/6/95, J.R. Palmer, det. E.J. Clement. (Not in Clement and Foster). *E. planum* grows nearby.

Euphorbia mellifera (Canary Spurge) Spreading through gardens in Coltsfoot Road, Ware, TL/3.1, Herts. (v.c. 20), 1994, C.G. Hanson. Originally cultivated by CGH in 1978.

Galanthus reginae-olgae Orphanides (Queen Olga's Snowdrop). One specimen on natural roadside near Swanley Village, TQ/5.6, W. Kent (v.c. 16), 26/2/95, J.R.Palmer. Several patches, (including one very large) at Wilmington Green, TQ/5.7, W. Kent (v.c. 16), 10/3/95, J.R. Palmer. In the field, best distinguished from *G. nivalis* by the **upper** surface of the leaves being not glaucous, but darkish, slightly glossy green, with a central glaucous stripe (**lower** surface glaucous). Perhaps fairly frequent. For other distinguishing features see *European Garden Flora*, vol. 1. (Not in Clement & Foster).

Geranium macrorrhizum (Rock Crane's-bill). For many years abundant on banks on the outskirts of Eynsford, TQ/5.6, W. Kent (v.c. 16). Two very large colonies, one at least of which originally planted, but now isolated additional plants appearing, 27/7/94, J.R. Palmer. Probably new to Kent (E.& W.).

Guizotia abyssinica. Tip in lay-by, Smallwood, SJ/797.596, Cheshire (v.c. 58), 1989, J.H. Clarke, **Hb GMK**.

Helichrysum bracteatum var. *aureum* (Strawflower). On wall with woods behind, Crayford, TQ/5.7, W. Kent (v.c. 16), 30/7/94, J.R. Palmer.

Jasminum beesianum. Bank of R. Goyt, Etherow Park, Compstall, SJ/972.911, Cheshire (v.c. 58), 1993, G.M. Kay, det. J.E. Hawksford.

Jasminum nudiflorum (Winter Jasmine). Two plants in flint wall of church, Anmer, TF/738.294, W. Norfolk (v.c. 28), R.M. Payne, 1991.

Lathyrus annuus (Fodder Pea). Made-up ground, Crayford Marches, TQ/5.7, W. Kent (v.c.16), 29/5/94, Mrs P.M. Palmer, det. E.J. Clement, **Hb JRP**. Rubbish tip, Northfleet, TQ/6.7, W. Kent (v.c. 16), 25/9/71, J.R. Palmer.

Ligustrum lucidum (Tree Privet). A 1 m high, bird-sown fruiting bush in natural woodland, Martens Grove, Bexleyheath, TQ/5.7, W. Kent (v.c. 16), 15/1/95, J.R. Palmer. This attractive evergreen is now widely planted and will be increasingly naturalised.

Lonicera tatarica. Hedgerow, Hawk Green, Marple, SJ/952.869, Cheshire (v.c. 58), 1993, J.H. Clarke.

Lychnis coronaria (Rose Campion). An enormous colony of more than 1000 plants present for many years on dry bank, far from houses, Littlebrook Marshes, increasing (?the largest colony in Britain); also a large colony on Bowmans Heath. Both TQ/5.7, W. Kent (v.c. 16), 1994, J.R. Palmer.

Malus × *micromalus* Mak. (Kaido). Seedlings in pavement cracks (from planted specimens) not far from Lessness Abbey, TQ/47.78, W. Kent (v.c. 16), 13/8/87, J.R. Palmer. Must be some doubt as to what extent these come up true. (Not in Clement & Foster).

Pachysandra terminalis Sieb & Zucc. Running out of control in shrubberies near Bromley, TQ/4.6, W. Kent (v.c. 16), 12/68 onwards, J.R. Palmer, det. D. McClintock. This far-creeping buxaceous evergreen has recently been recorded by G. Kitchener, (pers. comm.), much better naturalised, in a wood near Halstead, TQ/4.6, W. Kent (v.c. 16). A pest in gardens and likely to be dumped out and take root. (Not in Clement & Foster).

Petasites fragrans (Winter Heliotrope). Naturalised at Ware Priory, TL/3.1, Herts. (v.c 20), and at its **best** in **full flower** by November 20th 1994, C.G. Hanson.

Physalis peruviana (Cape-gooseberry) Thoroughly naturalised at Rye Meads sewage works near Rye House, TL/3.1, Herts. (v.c 20), 1994, C.G. Hanson. Thousands of plants seen every year over the last 20 years.

Piptanthus laburnifolius (D.Don) Stapf. (Evergreen Laburnum). A number of seedling plants in a rough part of Greenwich Park, TQ/3.7, W. Kent (v.c. 16), some distance from the parents, 22/9/83, J.R. Palmer. Hardier than the books say, and easy from seed, but the fleshy young plants are very difficult to preserve from slugs. (Not in Clement & Foster).

Pittosporum ralphii. Roadside above Mousehole, SW/46.26, W. Cornwall (v.c. 1a), 21/4/74, J.R. Palmer. (Clement & Foster mention only from Scilly (v.c. 1b).

Pteris vittata (Ladder Brake). Derelict Victorian greenhouse of Westfield House, West Street, Hertford, TL/3.1, Herts. (v.c. 20), 1994, C.G. Hanson. Known since 1977 but disappeared after vandalism in 1994.

Pyracantha coccinea × *P. rogersiana*. Specimen about 1 m high, probably this, on Littlebrook Marshes, TQ/5.7, W. Kent (v.c. 16), 29/8/94, J.R. Palmer. Corymbs downy like the former, but leaves look like the latter (e.g. pale green and less hairy). May be bird-sown, or possibly arisen *in situ* as both parents are also bird-sown here. So are many other shrubs on the vast gravelly wastes in the northern part of the marshes, (including *Cotoneaster dielsianus*, *C. franchetii*, *C. bullatus*, *C. lacteus*, *Hippophae rhamnoides*, *Elaeagnus umbellata*, and *Pyracantha rogersiana* var. *flava*. Nearby woodland has an apparently wild bush of *Ligustrum vulgare* var. *insulense* (Decne.) Höfker. (This has very narrow, taper-pointed leaves which are 6 cm or more long, but only 1 cm or less wide).

Ranunculus ficaria subsp. *chrysocephalus* Naturalised in hedge between Widbury Gardens and Little Widbury, Ware, TL/3.1, Herts. (v.c 20), May 1994, C.G. Hanson, det. P.D. Sell. Scores of plants covering a patch some 20ft × 2ft, every year for 20 years, not increasing much.

Rhododendron maximum × *R. ponticum*. Extensive and probably long naturalised in very mature woodland near Bexleyheath, TQ/4.7, W. Kent (v.c. 16), 10/6/95, J.R. Palmer. The influence of *R. maximum* appears in the extremely glandular pedicels and the orange markings on the upper lobe of the corolla. The ovary however is glabrous. (Not in Clement and Foster). **Hb EJC**.

Rhoicissus rhomboidea (E.H. Mey.) Planch. (Mermaid Vine). Many stems coming from way underground on rubbish tip, Horton Kirby, TQ/55.68, W. Kent (v.c. 16), 23/11/86, J.R. Palmer. (Not in Clement & Foster). The variety here was 'Ellen Danica'.

Ribes odoratum (Golden Currant). Several separate specimens in hedgerow (for many years), Hawley, TQ/5.7, W. Kent (v.c. 16), 1994, J.R. Palmer. Occurs at various other places in E. & W. Kent (v.cc. 16 & 17).

Scilla bithynica (Bithynian Squill). Countless thousands in derelict gardens behind Ware high street which back onto River Lee, TL/3.1, Herts. (v.c 20), March 1994, C.G. Hanson, det. R.M. Burton.

Sempervivum arachnoideum L. Many plants on old farmyard wall and on tiled roof of adjacent barn, Denver, TF/608.014, W. Norfolk (v.c. 28), R.M. Payne, 7/1995. (Not in Clement & Foster).

Setaria italica. Tip in lay-by, Smallwood, SJ/797.596, Cheshire (v.c. 58), 1989, D.J. Tinston

Solanum crispum Ruiz & Pavon. On very rough set-aside ground N of Farningham where a few heaps of rubble (now overgrown) have been for at least 5 years (says the owner of the area), TQ/5.6, W. Kent (v.c. 16), 18/5/95, J.R. Palmer, det. E.J. Clement. A bush 2 m high, on top of one of the heaps, has obviously been there for some time. Normally scandent, but will grow upright if no support available. First record for the British Isles. **Hb JRP**; **Hb EJC**. (Fruiting very well).

Syringa × *hyacinthiflora* (Lemoine) Rehd. Permanent made-up ground, mostly from building waste, on steep edge of Biggin Hill aerodrome, TQ/42.61, W. Kent (v.c. 16), 23/5/69, J.R. Palmer. (Not in Clement & Foster).

Vicia pannonica subsp. *striata* (Blue Hungarian Vetch). Old part of rubbish tip. Swanscombe TQ/6.7, W. Kent (v.c. 16), 25/6/95, J.R. Palmer. **Hb EJC**, **Hb JRP**. Very much rarer than subsp. *pannonica* (for differences see *Flora Europaea*).

EDITOR

TWO *GILIA* SPECIES IN NORTH EAST LONDON

Gilia capitata and *G. achilleifolia* (family Polemoniaceae) are colourful spring annuals native in California. Their ranges overlap on 'loose' ground at low altitudes along the coastal strand and chaparral habitats which extend from Santa Cruz Island north to Santa Barbara County (Munz 1974). Also on 'loose' ground, but close to London's River Lea, I recently found two examples of the former species (July 11th, 1994) and one example of the latter (May 15th, 1995). I judge them worthy of recording for *BSBI News* and a useful couple to illustrate together (see the front cover of this issue).

The genus *Gilia* is coined from a Spanish botanist Felipe Gil. As presently defined, it contains approximately fifty species. Far the greater number are Californian while a few are found in the South American Andes (Synge 1974). *Linanthus* is a related genus of around forty species formerly included in *Gilia* but now separated on the rather slim character of upper leaves usually being disposed in opposite pairs. Both genera are represented in the British horticultural literature because certain floriferous taxa serve well as short-term summer bedding (Synge 1974, Brickell 1989, Bailey 1976). Both genera have also contributed to the garden escapes and other wildlings of commercial origin detected in this country (Clement and Foster 1994).

The River Lea locality amounts to a small expanse of dry, disturbed soil partly shaded by young planted *Acer campestre* (Field Maple). It lies below a new hillside housing estate called Watermint Quay, Clapton, in the London Borough of Hackney (v.c. 21). Its flora has provided pleasures and surprises. Indeed I am tempted to ask, 'has someone at some time sprinkled seed here; if so, what was their purpose and where did that seed come from?'

For between May and July 1994 a series of unusual annuals matured, each in its turn, to add up to quite a puzzling assemblage. *Gilia capitata* was accompanied by similarly small numbers of *Linaria maroccana* (Annual Toadflax), *Matthiola longipetala* subsp. *bicornis* (Night-Scented Stock), *Vaccaria pyramidata* (Cow Basil), *Gypsophila elegans* (Annual Baby's Breath), *Bupleurum subovatum* (False Thorow-wax), *Ammi majus* (Bullwort), and *Lepidium sativum* (Garden Cress). True the last three at least carry a distinctive bird-seed flavour, but they were keeping strange company, with no typical avian fodder grasses growing nearby. In late July 1994, the entire patch, by then sun-parched, was systematically weeded out, doubtless by an estate resident believing that such action constituted community benevolence (perhaps it did). Two months later, the spot had greened over again, with co-dominating *Stellaria media* (Common Chickweed), *Diplotaxis muralis* (Stinkweed), *Conyza sumatrensis* (Sumatran Fleabane) and *Chenopodium album* (Fat-hen). In spring 1995, a single *Gilia achilleifolia* turned up, the sole reminder that an unusual mixture of aliens had even been introduced.

Each *Gilia* species keys out convincingly on flower characters (Munz 1974). The additional leaf observations are my own.

G. capitata	*G. achilleifolia*
Inflorescence densely capitate.	Inflorescence loosely capitate.
Corolla 8-12 mm, light blue-violet to whitish.	Corolla 10-20 mm, dark blue-violet.
Stamens as long as or longer than corolla lobes.	Stamens shorter then or subequal to corolla lobes.
Cauline leaves largest around middle of plant, closely spaced and narrowly divided.	Cauline leaves largest above middle of plant, distantly spaced and broadly divided.

To a botanist born and bred in Europe, the pinnatisect leaves of these plants might recall particular Compositae or Cruciferae rather than the principally New World family to which they actually belong. It is a resemblance honoured, of course, in 'achilleifolia', suggesting foliage similar to members of the Composite genus *Achillea* (Yarrow and relatives). Munz (1974) also distinguishes as subsp. *abrotanifolia* his lowland and coastal *G. capitata* populations which we may presume source the plants of hortal and alien status in Great Britain. This name likewise harks to the Compositae where the foliage of *Artemisia abrotanum* (Southernwood) may tolerably compare; my own choice, however, would favour the cruciferous genus *Descurainia* (Flixweed) for a closer leaf-shape match.

Clement and Foster (1994) faithfully account for both *Gilia* species (amongst others) with comprehensive references to the standard horticultural and botanical literature. They also convey that *G. achilleifolia* has not been seen outside of cultivation for at least 65 years. In their monumental compilation I am further directed to Ellis (1983) who informs us that the two Gilias have been noted as casuals in Wales. Thank you, Eric and Sally, not only for a publication of exceptional scholarship but also for an unexpected opportunity to acknowledge the work of our editor, too!

If any readers are growing *Gilia* or *Linanthus* species and have some spare seed I'd be delighted to hear from you.

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TRIBULUS TERRESTRIS AND THE SCONE FLORA

Part of a very rare British alien (*BSBI News* **50**: 30; *Alien Pl. Brit. Is.* 207) was recently sighted at Nottingham one lunch time. It was actually while eating a scone that a certain botanist felt the presence of a small hard object inside his mouth. After extraction and cleaning it proved to be not part of a tooth, as initially feared, but a single mericarp of *T. terrestris*, complete with dorsal spines. It seems most likely that it was introduced with some dried fruit, probably originating from Australia. If only it had not been baked in a hot oven it might even have been viable.

Although not generally eaten, the fruits of *T. terrestris* are gathered in India for medicinal use, and can usually be purchased there in markets. They are used as a diuretic and stimulant. They also have a high oil content and according to Dymock (*Pharmacographica Indica*) the taste is faintly aromatic and rather agreeable. Presumably this refers to ground fruits!

At least this provides a botanical alternative to the 'Waiter, there's a fly in my soup' jokes.

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ANOTHER ALIEN SOLANUM (S. abutiloides)

This very distinctive shrubby *Solanum* is a member of the rather natural section *Brevantherum* Seithe, which consists of shrubby unarmed plants with entire leaves, inflorescences that are terminal at first, relatively small flowers, short anthers with blunt apices and stellate pubescence (Roe, 1972). The section occurs naturally in tropical and subtropical areas of north and south America, from northern Argentina to southern USA. Two species are already known to be adventive in the Old World; *S. erianthum* D.Don and *S. mauritianum* Scopoli, which is reportedly naturalised in the Nairobi area of Kenya (Agnew, 1974).

Solanum abutiloides (Griseb.) Bitt. & Lillo, *Repert. Spec. Nov. Regni Veg.* **12**: 136 (1913).

Syn: *Cyphomandra abutiloides* Griseb., *Abh. Konigl. Ges. Wiss. Gottingen.* **24**: 249 (1879); *Solanum hibiscifolium* Rusby, *Mem. Torrey Bot. Club* **6**: 88 (1896).

Shrub 0.5-2 m. Whole plant (except corolla interior) covered with an indumentum of short and long dendritic, glandular and stellate hairs giving it a soft, slightly viscid feel, and releasing a pungent characteristic odour when touched. Branches arising three at a node around the base of the peduncle (see illustration A) giving a very characteristic pattern of growth. Leaves broadly ovate, 7-27 cm long × 6-12 cm wide, with an acute apex and deeply cordate base so that the lobes often overlap, upper surface with scattered hairs, lower surface tomentose. Petiole 2-10 cm long. Axillary leaves (these could be mistaken for stipules, which are unknown in the Solanaceae) ovate to narrowly-ovate c. 1 × 2 cm, directed away from the petiole, more or less clasping the stem. Inflorescences 10-15 cm long, peduncles solitary, unbranched for 6-8 cm, woolly. Pedicels 3-6 mm long, elongating in fruit. Flower buds oblong-elliptic c.9 mm long when fully developed, drooping. Calyx lobes lanceolate, often broadly so, 4 mm wide × 7 mm long, enlarging in fruit. Corolla weakly exerted from calyx at anthesis, white, 15-18 mm wide, lobes 5-7 mm long. Anthers c. 4 mm long, yellow. Ovary covered with upright linear hairs, style 4-5 mm long, the clavate stigma only just emerging above the anthers. Fruits orbicular, 1 cm diameter, bright orange-yellow when ripe, held erect, tomentose. Seeds straw-coloured in yellowish pulp, 1-1.5 mm diameter, very numerous. The live material seen is self-compatable, the seeds providing the means for increase and overwintering for this very frost sensitive plant (see illustration page 35).

Found wild at 900-3600 m in the Cordillera central of Bolivia and eastern Andean slopes of northern Argentina (Roe, 1972). Roe (1972) notes that *S. abutiloides* may be separated from the other species of this section by hairs with minutely stipitate glandular surfaces and stipitate glands present on many parts of the plant; cordate leaves; deeply lobed calyx and strong foliar odour.

In Nottingham it occurs on wasteground and cultivated land on the University campus, where it is a relic of cultivation for phytochemical work. It has been seen every year since at least 1978.

Although originally described as a *Cyphomandra*, this *Solanum* is easily distinguished from that genus by its short anthers, narrow connectives and filaments, and the presence of stellate hairs.

Correction

In the penultimate line of the note on Tree Tomato names (*BSBI News* **69**: 51, April 1995) there is an error in the spelling of the name *C. cajanumensis* (HBK) Walpers. *Iochroma australe* Griseb. (not *I. australis*) is the correct form of the name used in *BSBI News* **68**: 41, Jan. 1995, since *Iochroma* is neuter.

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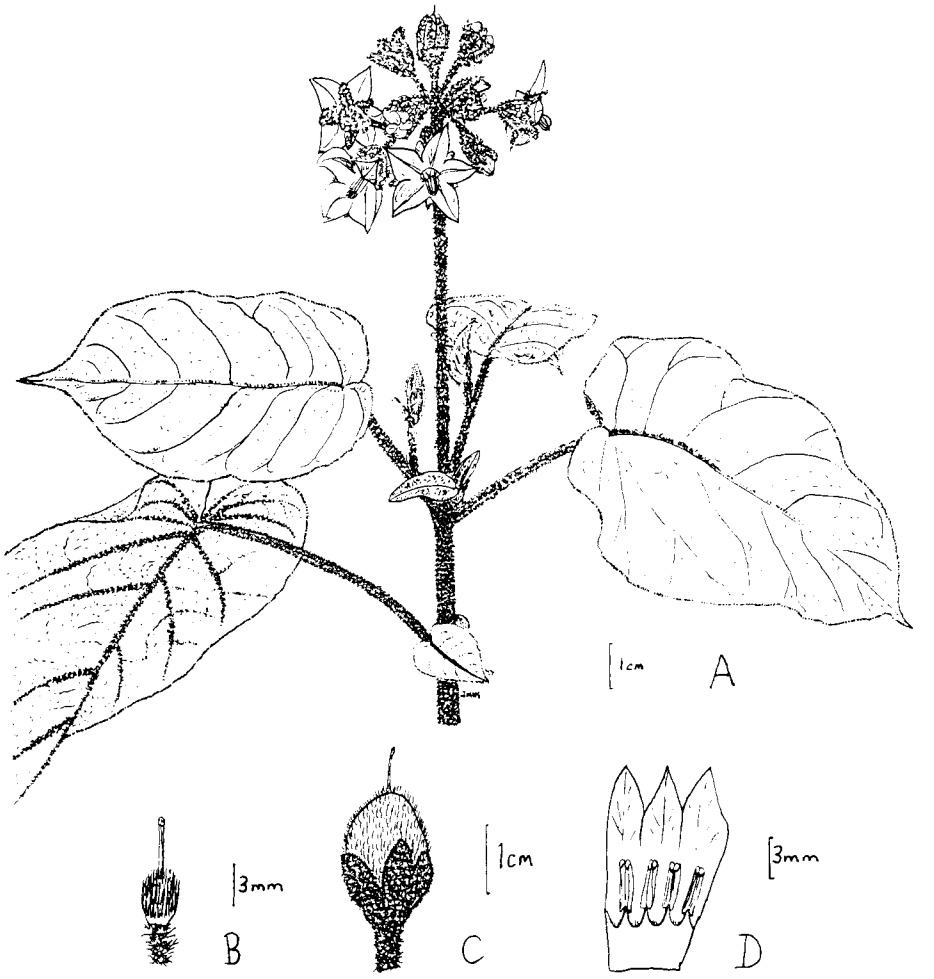

Illustration: *Solanum abutiloides*. **A**, flowering shoot; **B**, gynoecium; **C**, fruit, **D**, part of opened corolla, del. J.M.H. Shaw © 1995

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BEDFORDSHIRE WOOL ALIENS

1994 was the best shoddy year since 1985. On October 4th 1994, Ann Boucher and I visited the wool shoddy fields of Flitton and Flitwick and recorded the following aliens:
Amaranthus hybridus, *A. retroflexus*, *Ammi visnaga* (10), *Bidens pilosa* (15), *B. pinnata* (scores), *Ceratochloa carinata*, *Chenopodium probstii*, *Datura stramonium*, *D. tatula* (obviously distinct in my opinion), *Erodium botrys*, *E. brachycarpum*, *E. cicutarium*, *E. moschatum*, *Galinsoga parviflora*, *Malva neglecta*, *M. pusilla*, *Medicago arabica*, *M. laciniata*, *M. minima*, *M. polymorpha*, *M. truncatula*, *Sisymbrium irio*, *Solanum nigrum*, S. *physalifolium*, *S.* × *procurrens*, *Sorghum halepense*, *Tagetes minuta* (hundreds), *Trifolium angustifolium*, *T. subterraneum*, *Xanthium spinosum*.

Regrettably there was no sign of *Xanthium ambrosioides* which I have seen in the same spot almost continually since 1973. It may return however having been absent five times over this twenty one year period.

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MORE *SCILLA BITHYNICA*

In early March 1994, during a walk along the River Lea towpath at Ware (Herts, v.c. 20), I observed on the opposite bank through a broken wall what appeared to be an impossibly early bluebell wood in Ware's 'secret gardens'. These are completely overgrown plots sandwiched between the River and the rear of the High Street shops. The gardens have been abandoned for about 60-80 years and have now reverted to woodland and are officially sealed off from the public. I managed to sneak in after talking to one of the shop owners and took several photographs of the 'bluebells' which numbered between one and ten million. Rodney Burton identified the plants as *Scilla bithynica* as at Warley Place, Essex. My gardener's library contains only a single description of this *Scilla* (Roger Phillips & Martin Rix, *Bulbs*, Pan Garden Series, 1989) where its provenance is stated to be damp meadows, woods and scrub at sea level and up to 20 m in Bulgaria and N.W. Turkey.

Unlike the population at St Mary Cray, Kent, described graphically by David Nicolle in *BSBI News* **58**: 40, the vast Ware colony seems likely to remain. A scheme to clear the 'secret gardens' for a large car park was rejected about five years ago and strangely enough since discovering the plant I have now seen it in several old Ware gardens whose previous owners clearly knew about its local source if not its name.

My copy of *The Plant Finder* lists only two suppliers in the British Isles who stock the species and surely a woodland planted both with *Scilla bithynica* and *Hyacinthoides non-scripta* would provide a beautiful sight for many months. At the time of writing (late April 1995), the *Scilla* is still carpeting the 'secret gardens' and bluebells elsewhere in the area are approaching their best. Only in the small enclosed garden above Scott's Grotto (excavated around 1750) are both species seen together; the grotto is about half a mile from the *Scilla*'s source.

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NOTICES (BSBI)

ADVANCE NOTICE
BSBI FIELD MEETING TO WENGEN, SWITZERLAND
June 19th – July 4th 1996

As some of you know, Wengen has been a favourite holiday place of mine, and I have been taking groups there since 1974 – 2 groups in some years.

The flora is a very good selection of the favourite alpine plants of the Central Alps. As to which flowers we see on any one visit, we are very dependant on the season and in particular the amount of snow in the previous winter – but Wengen is famed for the numbers of Trumpet Gentians, *Gentiana acaulis*, and our finds will include assorted species of *Primula*, *Androsace*, *Campanula*, *Phyteuma*, *Saxifraga*, etc., etc., and if we are very lucky, good clumps of *Cypripedium* too. The spectacular high snow mountain scenery of the Bernese Oberland surrounding the village is also part of the Wengen magic.

Unfortunately, Switzerland is very expensive at present and we are working on keeping the costs down as much as possible, without curtailing some of our most rewarding localities, and still staying at the Alpenrose Hotel. We have kept the basic cost to £1,050 to include the hotel with half board, flights, transfers and FIVE days free travel on excursions. Additional expenses there will be small – a few half-price fares for some shorter excursions and shopping for our picnic lunches.

If required, there are optional supplements for a single room, a bath and for the view, and small supplements for flights from airports in England other than Heathrow or Stansted.

Early morning flights from Manchester, Birmingham and Stansted to Zurich can be arranged; or a connecting flight from Glasgow (extra) to LHR, from where we shall take the midday flight to Zurich – and all meet up for the ongoing journey to Wengen.

If you would like to join this meeting please send your provisional booking to Mrs M. Lindop, address on page 2, a.s.a.p. Margaret will send further details of costs and procedure for booking direct with the travel agent. Early booking to finalise travel arrangements will be essential for this meeting.

MARY BRIGGS, Hon. General Secretary

HIERACIUM STUDY GROUP

Will members please note that Mrs Anne Dalby of the Meetings Committee has requested that members of the *Hieracium* Study Group make a special effort to offer exhibits on Hawkweeds for this years Annual Exhibition Meeting at Leicester. My thanks to David McCosh for passing on a copy of Anne's letter.

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NOTICES (NON BSBI)

CAREERS IN THE ENVIRONMENT ACROSS EUROPE:
Sustainable Development and Environmental Employment in Europe

The London Environment Centre held the third in a series of Conferences and Workshops in its' 'Careers in the Environment' Initiative during May 1995, focusing on the trans-European opportunities, requirements, and ease of mobility in this occupational area.

Initial scene-setting papers included ones examining the increased need for environmental specialists and need for many professionals to have at least a base level of environmental knowledge to function in today's economic environment, even though their specialism is not specifically environmental. For instance, business studies, engineering, or accountancy require some knowledge of environmental law, environmental management, environmental marketing, etc.

Delegates were informed what the new European Environment Agency's roles and responsibilities will be and how Global Conventions (such as Agenda 21) and European Directives are translated into national policies and action plans, the underlying theme being that if we are to see these environmental policies and national strategies achieving their goals then we need a cadre of environmental professionals to advise, implement, and monitor progress.

One of the main themes of the Conference, examining the increasing professionalisation of the environmental employment sector and its implications for education and training of environmental managers and others (including environmental non-specialists), was illustrated by examples of

environmental employment trends across Europe. The Keynote Speech was given by Jørn Pedersen, Head of the European Foundation for the Improvement of Living and Working Conditions, whose speech on *Sustainable Development and the European Jobs Market* predicted that there would be a steady increase in employment opportunities in this sector as well as for those with environmental training in addition to other specialisms.

With the increasing importance and prominence of the environment on the political, economic and public agenda, so there is now a need to set this area on a good professional footing. Ecologists and environmental managers are increasingly being required to serve as 'expert witnesses' at planning enquiries and the like, so there is a need to rapidly get away from the 'fringe' type of perception that the environment often conjures in people's minds. The term 'ecology', and to some extent 'environment', have been terms which have been mis-used.

As we have witnessed over the past 5 to 10 years, the environment is no longer the province of the interested 'amateur' botanist, ecologist or entomologist, but a highly sophisticated and increasingly 'professional' area of employment. The aim of institutes such as the IEEM in the UK and similar institutes in other European countries is to establish the area of ecology and environmental management on the same footing as other professions, such as engineers, the medical and law professions.

A series of papers summarised European environmental qualification developments. One example was a course in environmental management at Masters level with modules available at 14 institutions in various countries, which required proficiency in two additional languages to candidates' native language. Other workshops examined the development of vocational qualifications across Europe (e.g. National and Scottish Vocational Qualifications - N/SVQs) and an ongoing EFEP/IEEM project on the reciprocal recognition of environmental qualifications across Europe.

It is intended to publish the proceedings of the Conference and a Special Bulletin of 'Network 21' (published by the Conservation Foundation) will be devoted to Environmental Career opportunities in Europe. In addition, the proceedings of the UK Conference and Workshop on 'Careers in the Environment' which took place in 1993 are available from the London Environment Centre at the special price of £7.

For further information, contact GUY ROBERTSON at the address on the next page.

LONDON ENVIRONMENT CENTRE – AUTUMN SEMINARS 1995

We would like to bring to the attention of members of BSBI the next two seminars to be run by the London Environment Centre, London Guildhall University.

These are:

23rd October – NVQs and Environmental Competence

Environmental considerations are increasingly entering all areas of economic life and professional practice. Environmental legislation and voluntary codes of practice have also meant that organisations need a workforce with relevant environmental knowledge and skills. Coupled with various government-led initiatives, such as National Education and Training Targets (NETTs) and measures to ensure all professional bodies operate a scheme of monitored continuing professional development (CPD), environmental knowledge and skill are gaining prominence.

28th November – Continuing Professional Development: The Role of Environmental Education and Training

It is of increasing importance that to maintain standards of professional competence to the level required by Professional Bodies, individual members must undertake a scheme of continuing education and training applicable to their areas of specialisation.

Both seminars will be held at: Calcutta House, London Guildhall University, London El.

For further details and copies of the final seminar programmes (when available), please contact me at the address below

GUY ROBERTSON, London Environment Centre, Faculty of Human Sciences, London Guildhall University, Calcutta House, Old Castle Street London, El 7NT Tel: (0171) 320-1126/ 1260 Fax: (0171) 320-1121

BUMBLE BEES FOR PLEASURE AND PROFIT
A SYMPOSIUM
Saturday 23 September 1995

Bumble bees can now be managed. Colonies can be reared in boxes for pollination, for research or for fun.

For anyone interested in bumble bees this meeting will introduce their natural history, their role as pollinators in the countryside and their potential for horticulture and agriculture. The place of bumble bees in education, and the rearing techniques that have made their management possible will also be discussed.

Expert contributors from the UK and Europe will share their huge range of scientific knowledge and practical experience covering these fascinating insects in natural and managed environments.

The Symposium will take place at the Linnean Society Rooms, Burlington House, Piccadilly, London on 23rd September 1995 and costs £17. For further details and booking forms please contact:

IBRA, Bumble Bees for Pleasure and Profit, 18 North Road, CARDIFF CF1 3DY

OFFERS

WILD FLOWER PLANTS AND SEEDS

A new edition of our leaflet *Wild Flower Plants and Seeds* has just been printed. It includes guidance on which species of wild flowers may reasonably be introduced into wild flower gardens and landscaped areas and gives the addresses of 20 suppliers whom the Society believes can be relied upon to supply seeds or plants derived from stock of wild British origin. Seed/plants of foreign origin should never be used!

Individual leaflets or supplies can be obtained by sending a stamped/addressed envelope to the address below. 19p postage will cover 12 copies, 29p for 20.

FRANKLYN PERRING, Green Acre, Wood Lane, OUNDLE, Peterborough PE8 5TP.

'MARITIME' PLANTS OF ROADS IN CAMBRIDGESHIRE (V.C. 29)

A 24-page paper with this title by Dr D.E. Coombe, illustrated with line drawings by Graham Easy, which was published in the 1994 issue of *Nature in Cambridgeshire*, is now available as a reprint. Itemised records of nine species are presented in the context of their wider distribution both on the coast and inland, the application of de-icing salt to roads, traffic density and variation in road drainage. This paper will prove of interest to readers of *BSBI News*, especially those who have followed the articles about *Cochlearia danica* (Danish Scurvygrass) on motorways and dual carriageways, going back to **52**: 15-16 in 1989. A copy of the paper may be obtained from F. & M. Perring, Green Acre, Wood Lane, Oundle, Peterborough PE8 5TP, by sending £1.00.

'The distribution of the Oxlip *Primula elatior* (L.) Hill in Cambridgeshire', a 32-page paper by Chris Preston of ITE, Monks Wood, which was published in the 1993 issue, is still available as a reprint at the same price (see *BSBI News* **66**: 25). *Nature in Cambridgeshire* (which is regularly quoted in *BSBI Abstracts*) is published annually each summer (price £3.00 by post). A seven-page supplement to Chris Preston's paper is published in the 1995 issue. Any reader wishing to subscribe regularly to the journal should inform its Editor at the address below.

PHILIP OSWALD, 33 Panton Street, CAMBRIDGE CB2 1HL.

BSBI ABSTRACTS

I have the following set of journals which I wish to dispose of: *BSBI Abstracts* Pts 1-24. For postage or collection (Oxfordshire, or possibly at Annual Exhibition Meeting, Leicester). There is no charge except postage (if used) and the first caller gets them!

JACK CHAPMAN, Vicarage Field, Church Road, Milton-under-Wychwood, CHIPPING NORTON OX7 6LQ. Tel. 01993 830498

REQUESTS

GARDEN ESCAPES

It is obvious from the recently-published account of the BSBI Monitoring Scheme that very many of the plants which are currently increasing in the British Isles are garden escapes. As part of a wider project on human impact on the British flora, we are trying to discover the key attributes of potential escapes. Many garden plants, especially annuals, have probably escaped without direct assistance, but others will have been deliberately (if inadvertently!) introduced by gardeners into the wild. We are particularly interested in these latter species.

We are therefore keen to hear from gardeners with plants which have outgrown their welcome. Which species have caused problems, and how have offending plants been disposed of – in the dustbin, in a skip, a local authority tip, or just over the garden fence? All contributions will be gratefully acknowledged in resulting publications, but without attribution of individual species (so if you are guilty of throwing out *Fallopia japonica*, your secret is safe with us).

KEN THOMPSON & DUNMAIL HODKINSON, NERC Unit of Comparative Plant Ecology, Department of Animal and Plant Sciences, The University, SHEFFIELD S10 2TN.
Fax 0114 2760159. E-mail Ken.Thompson@sheffield.ac.uk.

BOOKS WANTED

I am trying to put together a set of the bound volumes of *Drawings of British Plants* by Stella Ross-Craig. I have volumes 1 to 5 (parts I to XVIII inclusive) and am, therefore, looking for volumes 6, 7 and 8 (parts XIX onwards).

I also want to obtain Volume 1 of *The British Islands and their vegetation* by Sir A.G. Tansley.

If any member has any of these volumes that they wish to sell I would be pleased to hear from them.

M.A. WALTON, Ivy House Wheelock Street, MIDDLEWICH, Cheshire CW10 9AB
Tel. 01606 832613

NB See also page 11 for a request for seed of *Silene latifolia* which was mistakenly placed in the wrong section. Ed.

BOOK NOTES

THE COMPLETE HERBAL OF NICHOLAS CULPEPER (1616-1654)

In April of this year, Wordsworth Editions republished the unabridged original edition of Culpeper's *Complete Herbal* including the Epistle to the Reader written in 'my house in Spitalfields next door to the Red Lion Inn, 5th September 1653' and a dedication to his wife, Alice.

The book is in paperback trade 'B' format and retails at £2. It is available from most good book shops or can be obtained by mail order from Wordsworth Direct Mail, Redvers Public Relations Ltd, Redvers House, 13 Fairmile, HENLY-ON-THAMES RG9 3LA (Tel. 01491 572656).

PETER FRY, Assistant Hon. General Secretary

WHO'S WHO IN THE ENVIRONMENT: ENGLAND 1995

The definitive guide to environmental organisations

The new, fully updated and revised *Who's Who in the Environment: England 1995* directory is now available. It contains concise and up-to-date information on organisations concerned with the natural and built environment.

The directory is compiled and published by The Environment Council and is part of the *Who's Who in the Environment* series consisting of four volumes covering the UK. *Who's Who in the Environment: England* and *Wales* are both also available on computer disk.

Copies are being distributed free of charge to major libraries and all organisations included in the directory thanks to the support of the Countryside Commission and Friends Provident. Also thanks to the support of Friends Provident copies are available at the subsidised price of £12.50 incl. P & P. Please send orders with cheques made payable to The Environment Council to the address below. For further details contact Ian Runeckles or Kate Aldous on 0171 824 8411

Who's Who in the Environment: England, Data Plan, Kennet House, 77-79 Bath Road, Thatcham, NEWBURY, Berkshire RG13 3DB

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.

SCOTLAND

S. Uist, Outer Hebrides (v.c. 110). 27th June – 2nd July

The last BSBI meeting to be held in the Outer Hebrides was in Harris and Lewis in 1984, almost exactly 10 years ago. The principal purposes of this year's meeting were to start the recording for the new Atlas, and to continue the search for old and unconfirmed records. The *Flora of the Outer Hebrides* was first published in 1991 and the reprint (now with the index) came out in May, just in time for the meeting. At one stage there were over 30 applicants, but in the event we had a maximum of 25 people. This meant that we could not all stay in one centre, but the Macaskills at Drimisdale were very hospitable and we were able to gather there in the evenings, with the sound of the corncrakes calling in the background (the croft is actually within the boundaries of a NNR). We were very glad to welcome the staff of Scottish Natural Heritage, who took part in the excursions and helped greatly with local contacts and transport. For the same reasons our thanks are also due to the Twelves, who were most generous with the use of their boat and landrover. Stewart Angus, the other Recorder, was unfortunately prevented from coming at the last minute.

John Love of SNH started us off on the Monday evening with a superbly illustrated talk on the wildlife of the Hebrides. As an introduction to the machair the first excursion was to Loch Bee, where there is a gradual transition from dry machair through to wet machair and to brackish marsh. It was

miserably wet that day, which prevented us from enjoying the rich flora to the full. The afternoon was devoted to a search for *Potamogeton epihydrus* (American Pondweed) near Loch Ollay. Since our last visit, the area has been much altered by peat-digging activities, and we were unable to recognise the locality and found no trace of the pondweed. The disturbance has created plenty of suitable habitat, however and we heard later in the year that the plant had been refound. We did record *Drosera* × *obovata* (*D. longifolia* × *D. rotundifolia*) together with its parents, and found a patch of *Carex limosa* (Bog-sedge).

By Wednesday afternoon the weather had greatly improved, and then fortunately stayed fair for the rest of the week. The party split up to cover various parts of North Uist. A search for dactylorchids at Trumisgarry was frustrated by agricultural 'improvement' but a fine patch of *Platanthera bifolia* (Lesser Butterfly-orchid) was found in wet moorland at the roadside. As the sun came out in the afternoon we were shown fine populations of *Dactylorhiza* on the dunes at Newtonferry, including a few plants of the rare *D. majalis* subsp. *scotica* (Western Marsh-orchid). By the end of the afternoon the tide had gone out far enough that we could take the landrovers across the sand to the uninhabited island of Vallay. A long list of species was made from the central marsh and the northern dunes, where *Taraxacum haworthianum* (Sect. Erythrosperma) (Dandelion) was discovered. This turned out to be the second vice-county record.

On Thursday we dispersed in every direction. One party took the ferry to Berneray off North Uist where the machair was in full glory. Another group went with the boatman to visit Ronay off Grimsay, and gratefully accepted an invitation to tea with the owner at the end of the afternoon. Another group reconfirmed the record of *Ophioglossum azoricum* (Small Adder's-tongue) on the east coast of S. Uist, and another went to record the recently discovered birch wood by Loch Eynort. Some were lucky enough to see otters on the way back. Lastly, a small party trekked across the moors to the Ben Lees near Loch Maddy, and refound what we had thought to be *Equisetum pratense* (Shady Horsetail), last seen there by Shoolbred in 1898. However, Chris Page has since named the specimen as *E.* × *mildeanum* (*E. pratense* × *E. sylvaticum*), the third record for Scotland. In the evening Mary Harman of SNH gave us a fascinating introduction to the local archaeology, with its brochs, duns, stone circles and castles.

July 1st was devoted to exploring the Loch Druidibeg National Nature Reserve and the neighbouring hills. The SNH staff, Gail Churchill and Joan Murray took to their oars so that we could visit the islands in the loch, with their curious collections of planted conifers. The shore party almost stepped into a golden eagle's nest (virtually at sea level!) and reported eye contact with a large and well-fed eagle chick. On the hills we refound *Hymenophyllum wilsonii* (Wilson's Filmy-fern), *Saussurea alpina* (Alpine Saw-wort) and *Thalictrum alpinum* (Alpine Meadow-rue). That same evening much excitement was caused by the rediscovery of *Hierochloe odorata* (Holy-grass) in Benbecula, not seen since 1936, near to the loch where we were shown the nationally rare *Potamogeton* × *billupsii* (*P. coloratus* × *P. gramineus*).

The last day, Saturday, was devoted to mountains and islands. One group took the ferry to Eriskay and dispersed to the four corners of the island. On the green in the centre of the village, *Bromus racemosus* (Smooth Brome) was found growing among *B. hordeaceus* (Soft-brome), presumably an introduction, but a new vice-county record. *Anacamptis pyramidalis* (Pyramidal Orchid) was found, new to Eriskay. The same day, *Carex hirta* (Hairy Sedge) turned up on the roadside at Pollachar. An ordinary enough plant, but again a new vice-county record. The Twelves took a party in their boat to the island of Fuday, on the way to Barra, and reported *Orobanche alba* (Thyme Broomrape) and a large population of *Anacamptis pyramidalis*, for which the island is well known. Lastly, an energetic group went to explore Ben More, the highest hill in the Uists, but were not able to confirm the old record of *Saxifraga rosacea* (Irish Saxifrage).

Back at Drimisdale, the Macaskills organised a ceilidh for Saturday night, much appreciated by botanists and the local people alike. A final word on this very enjoyable week was the publication of an article about botanising in the Uists by Andrew Currie (previously Recorder for v.c. 110) in the West Highland Free Press on 15th July.

RICHARD & ANNE PANKHURST

GREECE

Mount Olympus area. 11th – 20th June

Mount Olympus is enormous and magnificent: it rises dramatically, soaring to almost 3000 m out of the sea, 1½ hours drive south of Thessalonika in central Greece. The divided summits were still covered in snow at the time of our visit. The base for our group of 20 was the very pleasant small town of Litochoro, about 5 km inland, tucked away on the lower, cooler slopes beside the oriental plane filled banks of the Evipeps River. Here we stayed in the aptly named, clean and comfortable, Myrto Hotel from which we set out each morning about 09.30 after purchasing our picnics in the shops five minutes away.

We studied the flora of this mainly limestone mountain in six, successively higher stages, though we left the beach for a gentle relaxed day after the exertions of reaching the summit, and started amidst the macchie at c. 300 m just across the river. A very early spring meant that everything was advanced by almost a month compared with 1992 and many of the flowers here were dried up or well past their best: however we were able to find beneath the terebinths, *Pistacia terebinthus* and the wig-trees, *Cotinus coggyria*, an E. Balkan greenweed, *Genista carinalis* and that curious Balkan endemic, yellow-flowered member of the Rutaceae, *Haplophyllum coronatum* with each of the five lobes of the fruit crowned with a large toothed appendage.

On the second day we walked up through the village parallel to the river and wound our way westwards on narrow tracks through low woodland of *Fraxinus ornus* and *Acer hyrcanum* and learnt to distinguish *Carpinus orientalis* from *Ostrya carpinifolia* by their involucral leaves. Fortunately two of the highlights of this section were still in flower and many photographs were taken of *Cephalanthera rubra* and *Fritillaria messanensis*. The highest point at about c. 750 m was reached in time for lunch and to admire the swollen-fruited *Alyssoides utriculata* and one of the rarest Mt Olympus endemics, *Centaurea incompleta*.

To reach parts of the mountain above c. 900 m with plenty of time for botanising means a coach ride on dusty roads to where deciduous woods give way to conifers – mainly *Pinus nigra* subsp. *pallasiana* but with occasional *Abies borisii-regis*. The walk, downhill, here took us past magnificent stands of *Digitalis grandiflora*, and three species of *Lathyrus* – *laxiflorus*, *venetus* and the superb, crimson and purple *L. grandiflorus*, By the river, near the monastery of Agios Dyonysiou, where we stopped for lunch, the leaves of the Balkan endemic Hellebore, *Helleborus cyclophyllus* were visible whilst rocks in the river yielded masses of *Geranium macrorrhizum* and occasional *Aquilegia ottonis* subsp. *amaliae*. A two hour walk upstream to Prioni at 1000 m along the impressively labelled E4 footpath (from the Pyrenees to Greece!) was a short course for umbel enthusiasts with *Anthriscus nemorosa*, *Ferulago sylvatica*, *Laser trilobum*, *Laserpitium siler*, *Physospermum cornubiense* and *Smyrnium perfoliatum* to be sorted out.

With our muscles now well toned for the final ascent, the fourth day was declared a rest day – with an optional trip, which everyone took, to Meteora 2½ hot and dusty hours away on the plains of Thessaly, But the amazing series of richly decorated monasteries perched on top of rocky pinnacles and the dramatic setting were well worth the effort of rising at 6.00 a.m. to arrive before the hordes. Descending against the upwardly, but hardly mobile, human tide there was plenty of wildlife to enjoy as well – Egyptian vultures planing round the rocks with blue rock-thrush sitting on them excited the bird-watchers and it is also a great place for tackling Balkan knapweeds including *Centaurea alba*, *C. graeca* and *C. zuccarineana*. Here also grass-lovers had a field day with at least 14 species, many of which were seen nowhere else during the trip.

Day 5 was D-day. To see the higher alpine region it was necessary to climb from Prioni to 2100 m and spend the night at a mountain refuge. This gave time on the following day to explore above the trees which, at this altitude, are almost entirely *Pinus heldreichii*. The sleeping accommodation at the refuge was fairly primitive and, despite being tired, few had a good night's sleep. However this was quickly forgotten as, in perfect weather, we explored a corrie where the snow had just melted to reveal many exciting alpines including the last of the crocuses (*C. veluchensis*), superb saxifrages such as *S. scardica*, *S. sempervivum* and *S. spruneri*, the Greek endemic *Corydalis parnassica* the tiny, bright blue *Veronica thessalica* confined to Mt Olympus and one station in N. Albania. But the greatest

excitement was left for the descent where, not far above Prioni, on shady rocks between the path and the river we found the beautiful blue Mt Olympus endemic, *Jankaea heldreichii*, in full flower. Though it had been a long day with an 8.00 a.m. start and the last walker not in the coach at Prioni until 6.00 p.m. there was a great feeling of effort well rewarded – and so to the beach.

It was hot after the snow-fed breezes above but, within a radius of 2-300 m, there was much to discover amongst the sand dunes and slacks. Of particular interest were masses of the Balkan endemic, *Jasione heldreichii*, an easy-to-identify mullein, *Verbascum pinnatifidum*, with deeply divided basal leaves; a very straggly, large-flowered form of that popular rock-plant, *Hypericum olympicum* (named after the Bithynian Olympus near Bursa in Turkey!); and another *Centaurea*, with very small capitula, *C. diffusa*. Most bathed before we returned up hill to the cooler streets of Litochoro. Here we were able to solve the identity of a puzzle plant which was growing in crevices high up in the detached-campanile of the church by the hotel: rosettes of thick, toothed leaves had begun to produce blue, bell-like flowers of a *Campanula*, which turned out to be *C. versicolor*. The campanile is now known as the bell-tower with the bell-flower! Beside it, and almost as tall, is a magnificent tree of prickly oak, *Quercus coccifera*, demonstrating what it can do when free of goats.

Our last day was also generally shady. We returned to the mountain but this time approaching it from the north walking up the Paparema valley. Here many species may be found lower down than elsewhere, but our progress was hampered by paths blocked by trees, victims of the winter storms. However, in occasional clearings, the genus *Linum* was specially noted: two Balkan endemics – the butter-yellow *L. elegans* and the softly-hairy, blue *L. spathulatum*, as well as the more widespread *L. tenuifolium*. But the abiding memory of cool botanising was the whole party bathing their feet in a water conduit the sides of which were covered in an amazing display of the pinkish-lilac, yellow-throated butterwort, *Pinguicula hirtiflora*.

On the way back to Litochoro for our last dinner together in the garden of a taverna, we stopped for an hour at Dion, a sacred town of ancient Macedon. Slightly off the tourist track, it is still being excavated and its small, modern museum has an outstanding collection of some of its finds. A fitting place to end our visit to Mt Olympus and a reminder of the enormous variety of treasures we had experienced during our 10-day stay. These are now summarised in an A5 booklet produced by David Scott which includes over 1000 taxa which have been recorded during the three trips made there since 1991, the first two by Wildlife Travel alone and this third jointly with the BSBI.

A. HAMERSCHLAG & F. PERRING

ADVERTISEMENTS

Eva Zache and the late Dick David at the *Carex bicolor* site near Kandersteg, Switzerland.
Photo M. Briggs © 1990 (see page 19)

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.

Offers and special terms apply only to members of the Society and copies are not available on an exchange basis.

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Enquiries concerning the Society's activities and membership should be addressed to:
The Hon. General Secretary, c/o Dept. of Botany, The Natural History Museum, Cromwell Road, London SW7 5BD.

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