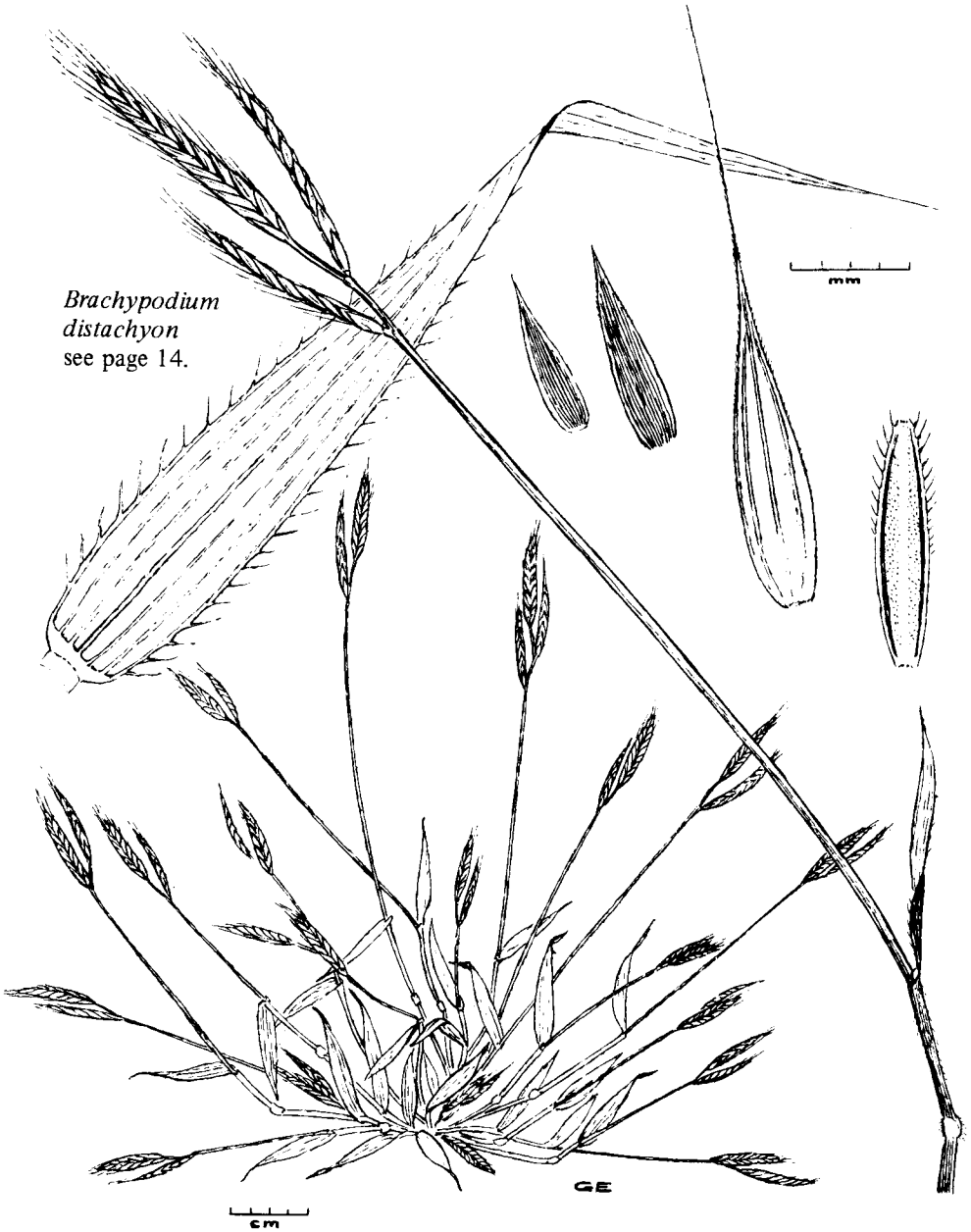


B.S.B.I. NEWS

October 1979
No. 22

Edited by EDGAR D. WIGGINS
Cowpasture Farm, Felixstowe, Suffolk IP11 9RD

*Brachypodium
distachyon*
see page 14.



ADMINISTRATION

Addresses

HON. GEN. SEC:

(General Enquiries)

Mrs. M. Briggs, White Cottage, Slinfold, Horsham,
West Sussex RH13 7RG

HON. TREASURER:

(Payment of Subscriptions and Changes of Address)

Mr. M. Walpole, 68 Outwoods Road, Loughborough,
Leics LE11 3LY

BSBI Committee for SCOTLAND

At the AGM on 3rd November, 1979 three members will be elected to the Committee. Of those resigning, Miss E.R.T. Conacher is eligible for re-election.

Nominations, signed by two members of the Society normally resident in Scotland and with the written consent of the candidate, are invited and should reach the undersigned at 15 Lubnaig Road, Glasgow G43 3RY by 6th October 1979.

PETER MACPHERSON

INSTRUCTIONS TO WRITERS OF B.S.B.I. FIELD MEETING REPORTS

When writing your report please be as brief as is compatible with interest and clarity, using a maximum of 250 words per day of trip up to an overall maximum of 1,200 words.

Reports should be sent to: Dr S.M. Eden, 80 Temple Road, Cowley, Oxford OX4 2EZ.

EDITOR'S NOTE

Some contributions to *BSBI News* have long lists of species appended to them and it has up to now been possible to fit them in somehow. This may not always be possible and it has been decided by the Publications Committee that only short lists which are integral to contributions of general interest can be included. Longer lists, appealing to more specialised students, will have to be made available by the author to individual requests. A note to this effect will be added to the contributions concerned.

May we also remind authors to keep their contributions brief.

BSBI NEWS 23
Contributions intended for publication in this issue
must reach the Editor
BEFORE 29th OCTOBER 1979

IMPORTANT NOTICE TO MEMBERS

ADMINISTRATION AND SUBSCRIPTION CHANGES

Business announcements are often only given a cursory glance by readers of *B.S.B.I. News* in favour of more interesting items but it would be helpful if you would take careful note of the following important changes relating to your membership of the B.S.B.I.

The resolution to increase members' subscriptions was approved at the recent Annual General Meeting and the following subscription rates will apply as from 1st October 1979:

Ordinary £7.50 Junior £3.00 Family £1.00 Subscriber £7.50

The above ordinary subscription is subject to the new proviso that "persons over 60 who have been members of the Society for at least 10 years and who are no longer in full time employment may elect to pay an annual reduced subscription". This reduced rate has been fixed at £5.00 for 1980. To take advantage of this reduction you must advise the Hon. Treasurer of details before 1st November next.

As from 1st January 1980 we are discontinuing the administrative office at Harvest House, Reading, and after that date membership records will be handled by the Hon. Treasurer, (68 Outwood Road, Loughborough, Leics.) to whom all subscriptions and changes of address should be sent. The payment of subscriptions by bankers order is also being discontinued in favour of the Direct Debit System. Full details of the proposed Direct Debit method of payment will be sent to members in due course. Any problems relating to membership details can be raised either with the Hon. Treasurer or Mrs. Rachel Hamilton, the Hon. Membership Secretary, Shambles, Whitwell, HITCHIN, Herts SG4 8AL

N.B. B.S.B.I. WILL NOT HAVE AN ADDRESS AT HARVEST HOUSE, 62, LONDON ROAD, READING, AFTER DECEMBER 31st 1979.

PROSPECTUS

An updated BSBI Prospectus will be available from October 1st. Will any member holding copies of the current Prospectus please destroy these. Copies of the new Prospectus, for recruiting new members, may be obtained on request from Mrs. Mary Briggs (White Cottage, Slinfold, Horsham, West Sussex).

COUNCIL MEMBERS 1979-1980

Mr. R.W. David (*President*); Mrs. B.H.S. Russell, Prof. J.P.M. Brennan, Mr. J.F.M. Cannon, Mr. D.H. Kent, (*Vice-Presidents*); Mrs. M. Briggs, (*Hon. Gen. Sec.*); Mr. M. Walpole, (*Hon. Treasurer*); Dr. S.M. Eden, Dr. N.K.B. Robson, Dr. C.A. Stace, Dr. D.L. Wigston, (*Hon. Editors Watsonia*); Mrs. J.M. Mullin, (*Hon. Meetings Sec.*); Miss L. Farrell, (*Hon. Field Sec.*); Mrs. R.M. Hamilton (*Hon. Membership Sec.*); Dr. J. Dransfield, Dr. J.L. Mason, Dr. Q.O.N. Kay, Dr. R.M. Harley, Captain R.G.B. Roe, R.N., Mrs. A.C.M. Duncan, Mr. K.G. Messenger, Dr. P.M. Wade, Mr. E.D. Wiggins, Mr. R. Pankhurst, Dr. S.L. Jury, Dr. G. Halliday, Council (*in order of seniority, Rule 10*); Dr. A. O'Sullivan, (*Ireland*); Mr. G. Wynne, (*Wales*); Mrs. O.M. Stewart, (*Scotland*) (Representatives on Council; Rule 11).

Council invited the Nature Conservancy Council to send an official representative to BSBI Council meetings as observer. NCC has nominated Dr. R.A.H. Smith for this appointment.

HON. GEN. SECRETARY'S NOTES

AGM 1979

The Annual General Meeting 1979 held at the University of Leicester on May 12th was attended by 65 members. Field meetings on the Sunday were organised by Leicestershire members and the participants enjoyed one of the first weekends of sunshine in this year's vary late Spring. We should like to thank all the organisers: reports will be published in *Watsonia*.

AGM 1980 (Advance Notice)

The 1980 AGM will be held on Saturday May 10th in Cambridge. You will note that we shall not be following the convention of recent years by which the AGM has been held alternately in, and away from, London. When planning a London AGM we aim to avoid the date of Kew Open Day, which in turn depends on the date of the Cup Final. As Kew now has an Open Day every other year it would seem sensible for the BSBI AGM to be held in London in those years alternating with the years in which Kew holds an Open Day. By missing one 'London year' we plan to avoid this clash of dates in the future. The date of the BSBI AGM does also depend on a number of other factors and fixtures (e.g. the Rules, the time taken to audit, print and mail the accounts; the Linnean Society Conversazione, Chelsea Flower Show etc. etc.) PLEASE NOTE that the 2nd Saturday in May is not a permanent date for the BSBI AGM – another may be generally more convenient in future years. We hope to let you know the chosen date well in advance, to allow those members who wish to attend to keep that date free.

EXHIBITION MEETING

With this *BSBI News* comes the notice of the **Annual Exhibition Meeting and Conversazione**. To some members "Conversazione" sounds somewhat formidable, and it seems that some have hesitated to sample this evening meeting on Exhibition Day. They can be assured that the gathering is strictly informal; the term is used in the Italian sense of the three definitions given in the Oxford Dictionary ie. "In Italy, an evening assembly for conversation and recreation". The word has been traditionally used for such informal scientific gatherings for more than 200 years – In *The Naturalist in Britain* (Penguin 1976) D.E. Allen describes the origin of the term used first by "the drawing-room hostesses" of about 1750. Talk and refreshment were the essential ingredients of these early 'Conversazioni' – as they are of ours to-day. We do however have to limit the number of tickets for this meeting to the available space, so you are advised to apply early.

Everyone Can Do His Bit

Children belonging to the Christian Endeavour Society at Marlpit Hill Baptist Church, Hilders Lane, Edenbridge, Kent have collected £5 and generously donated it to the BSBI for our work on the protection of wild plants. It surely must give us all tremendous encouragement when a group of young people are already so concerned. We intend to use the money to help purchase a reserve for an endangered species in Kent or Sussex.

Seeds of Wild Flowers

An explanatory sheet setting out the Society's policy on these, and answering the many queries received by BSBI on the growing of wild flowers from seed, sources of seed etc. is available from Mary Briggs on receipt of a stamped addressed envelope.

13th International Botanical Congress, Sydney 1981

Any member contemplating travelling to Australia for this Congress is advised to contact Mr. A. van den Hurk, Express Boyd Limited, 4/5 Bonhill Street, London EC2A 4BX. Telephone (01-628-6060) for details of travel arrangements.

The Winston Churchill Travelling Fellowship for 1980 Awards include the category: "All concerned in the planning and conservation of the natural environment; wildlife, plants, forests, coasts etc." For further details of this, or of the open category for a chosen project, send your name and address only on a postcard to the Winston Churchill Memorial Trust, 15 Queen's Gate Terrace, London SW7 5PR. You will receive an explanatory leaflet and a form to complete, which must reach the Trust office by 1st November 1979.

Vascula

Following the offer of two *Vascula* by Mrs. Burrows (*BSBI News* No. 21:4), seven requests for these were received. If any vasculum-owning member is not now using his and would be prepared to pass it on, please let the Hon. Gen. Sec. know. (My own is at present out on loan, and Mrs. Murray tells me that it has been to Raasay and $\frac{3}{4}$ way up An Teallach in gale force wind – for the specific purpose of collecting sample *Taraxacum* plants to be named for the local Check-List). As you can imagine, *Vascula* are not the easiest items to pack and send by post and I hope that recipients of these free *vascula* always remember to refund the postage.

New *Vascula* are available still from T. Gerrard & Co. Gerrard House, Worthing Road, East Preston, Littlehampton, West Sussex. On going to press the prices are £10.70 for the smaller size, £19.25 larger size – V.A.T. and postage extra. Please state that you are a BSBI member if writing to order and enquire the current price.

Congratulations to **Miss Dorothy de Vesian** of Cheltenham who celebrated her 90th birthday in August. We hear that she still looks after herself and her garden and drives a car; proof once more than an interest in botany helps to keep one young.

With regret we report the deaths of two long standing members:

Mrs. L.E. Whitehead, who was about 85 and a member since 1952, died in June this year. Author of *Plants of Herefordshire* (1976) and BSBI Recorder for v.c. 36 for many years. Local botanists feel that for them Mrs. Whitehead's death is the end of a botanical era. There will be an Obituary in *Watsonia*.

G.S. Adair of Cambridge, although a member of the Society since 1914, was not known to many of us. He was a shy academic who pioneered early research into the complex physical chemistry of proteins.

THANKS to Mrs. Jill Lucas who typed copy for this *BSBI News*, between other voluntary work, her holidays and an exciting day in the Yorkshire Dales finding Holly Fern in new localities.

MARY BRIGGS

JOHN DONY AT 80

Reminiscences and an Appreciation

by Edgar Milne-Redhead

A characteristic of systematic botanists is that they carry on an active life long after they 'retire'. Dr. J.G. Dony is no exception. Thirty five years ago when serving with a radar unit near Dunstable. I was advised by my Kew colleague Charles Hubbard (then evacuated to Oxford) to contact an enthusiastic local botanist who was actively engaged in collecting data for a flora in his county – this was John Dony of Luton. We met, and cycled around Bedfordshire often using the train to get further afield. He introduced me to some splendid wild habitats I would never have discovered on my own. We explored Flitwick Moor, Tottenhoe Knolls, King's Wood, Knocking Hoe and Deadmansey Wood as well as that wonderful "Hummocky Field" at Tottenhoe, later destroyed by ploughing (no doubt aided by Government grant).

I became familiar with many hitherto little-known (to me) plants and I met a number of John's friends with many of whom I am still in touch. Peter Taylor, a lepidopterist and Bernard Verdcourt, a conchologist, both of them in non-biological jobs, nevertheless had a natural ability for taxonomic work. They are now on the scientific staff of Kew Herbarium. Also there was Vic Chambers, then studying solitary bees, now an active conservationist with the Beds & Hunts Trust.

John has a great sense of humour, and with H.B. Souster, who often joined us on Sundays, we had a lot of fun together. I well remember one occasion when, cycling toward Flitwick with Souster and John, I was having trouble with the outer cover of a tyre, through a split in which the inner tube protruded. Delayed near Fancott while I patched the offending cover, our little party moved on a short way to a pond where John wanted to obtain a good specimen of *Ceratophyllum*. Always handy with his drag, John cast it into the pond. A moment later, out it came and on it a bicycle tyre considerably batter than the one I had just patched.

Visiting Bedfordshire several times after the War, I met John whose painstaking work on the county flora was nearing completion. Published in 1953 by Luton Museum where he was Hon. Curator of Botany it is packed with up-to-date records mostly verified by John himself, thus demonstrating the enthusiasm and determination that inspired him.

With Bedfordshire off his hands John now started on Hertfordshire where, with the aid of his wife, Chris, hundreds of hours of field work were spent in preparing the *Flora of Herefordshire* which was published in 1967. Meanwhile he was studying the wool aliens of Bedfordshire, an absorbing interest in which I saw him frequently at Kew delving to find names for specimens whose country of origin was probably unknown. Still loyal to Bedfordshire, he published his *Bedfordshire Plant Atlas* in 1976, a useful supplement to his earlier "Flora" of the County.

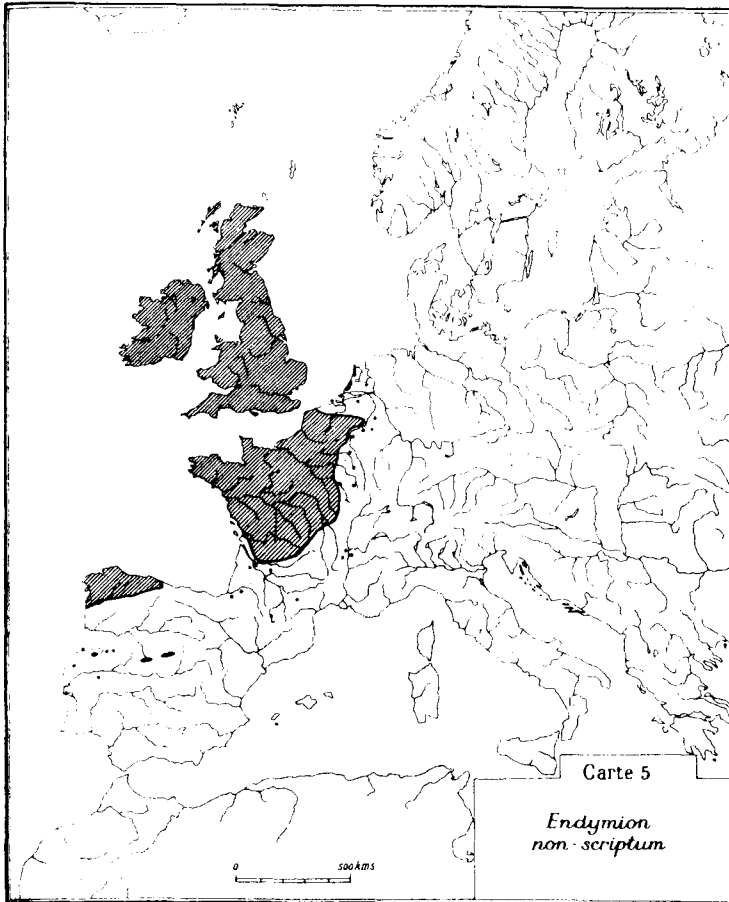
His record within BSBI is impressive. Joining in 1937, he became very active from 1949 onwards, being Field Secretary until 1956, when he was appointed General Secretary, a post he held until 1964. He also served for many years on various committees, among them Development & Rules, Meetings & Local floras. Following a period as Vice-President, he was elected President in 1967.

His great experience of field botany and flora writing, his clear thinking and administrative ability plus his interest in the members, have contributed immeasurably to the Society's progress. On the occasion of his eightieth birthday (on 8th August 1979). I know all members of BSBI will wish John and Chris "Many Happy Years", and on a personal note, may I remind him of the happy Bedfordshire botanical days we shared. But for him I should never have added my one and only contribution to the British Flora.

BLUEBELL DISTRIBUTION MAP

The distribution map of *Hyacinthoides non-scripta* highlights the point that the British Isles are the centre of this plant's geographical distribution, one of the deciding factors in the choice of this plant as BSBI emblem. An interesting paper in the *Germination of the Bluebell (Hyacinthoides non-scripta (L.) Chouard) in Relation to its Distribution and Habitat* has been published by P.A. Thompson and S.A. Cox of Royal Botanic Gardens Wakehurst Place, in *Ann.Bot.* 42, 51-62, (1978). Their studies showed that germination of the seeds occurred in response to a two-phase treatment, a high temperature conditioning phase with an optimum at 26° to 31°C., followed by germination at the lower temperature of 11°C.. Soil temperature tests and meteorological data showed that the natural distribution of the species is defined by the mean daily minimum temperature of the coldest winter month ($>0^{\circ}\text{C}.$) and the mean daily maximum temperature of the warmest summer month ($<25^{\circ}\text{C}.$), and germination was shown to be critically dependent on temperature.

Apologies for the incorrect epithet used in the name for this plant in *BSBI News* 21:4 It should of course have been *Hyacinthoides non-scripta* and my thanks to Dr. John McNeill of Ottawa for writing and drawing attention to this. Mary Briggs



THE BSBI IRISH IVY SURVEY.

Some results after a long pause ! The hesitation about concluding the survey was partly due to not knowing what to call this puzzling ivy. Also, as the problem was being worked on, it began changing its status, and of course, opportunities to visit neglected areas to look for it added to the delay.

I think it has been worth it. Not only has the mysterious origin of Irish Ivy been discovered, but the whole genus of *Hedera* is being investigated by Dr. Hugh McAllister of Liverpool University Botanic Gardens, who will later publish a paper on the 'parent' of *hibernica*. The whole ivy question grew so big that the two people involved could not cope, so the Ivy Exchange for botanists, taxonomists, growers and retailers of ivy was founded. If anyone is particularly interested in *Hedera* or is contemplating research work they might like to contact one or other of us. See *Postscript*.

Contrary to popular myth, Irish Ivy is rare in Ireland, and Ballybunion, its suggested place of nativity, is devoid of it and we only saw it there in late 19th to early 20th century gardens. It has been recorded from Orkney, the furthest north in the world, but planted. Over most parts of England and Scotland it is far more widespread, except in built-up areas post Great War, and above 500 feet in altitude.

A clue to its origin was that many samples from the very south of England and the Channel Isles were *not* Irish Ivy, though bearing a strong resemblance to it. These gatherings often had the odour characteristic of it and the collector would report that there had been "some Irish Ivy-shaped leaves", but the bulk of the foliage was 'not right'. I accepted only those plants having all but the "fertile" leaves (i.e. those associated with flowers, at the top of the plant) showing the extraordinarily even-shaped and sized foliage.

Once Hugh McAllister had counted the chromosomes of a number of wild ivies, he found many plants had 96, the same as Irish Ivy, yet they were not the same. In the Isle of Wight last summer he saw a *Hedera* which demonstrated clearly it was 'wild *hibernica*'. It ramped luxuriously with the usual polymorphism of an ivy – the leaves running from 'ivy-shape' through pedate into Irish Ivy, then finally to arboreal (fertile) foliage. It would seem that Irish Ivy is a natural sport which develops from seedling leaves into sub-arboreal, missing out the intermediate stages, which can be observed by growing-on berries of Irish Ivy.

Hugh McAllister finds that this new species has a western (Atlantic) distribution, occurring in a wide band in the south of Britain, narrowing northwards and petering out in south Ayrshire, where it grows so poorly it is very hard to tell it from Common Ivy. A similar type has been found in Wales. Possibly exposure and growing at its northern limit prevents it attaining the lush growth achieved in southern sheltered spots. How Irish Ivy (hort.) maintains the abundant growth in Scotland, while the wild type does not, may be explained by thinking not of one, but several kinds of the new ivy, just as there are many forms of wild *H. helix*. A plant from Ireland of the 'wild *hibernica*' was planted out in Scotland in 1976 and it has continued to produce its large robust leaves. Druce's ivy *H. helix* var *sarniensis* with its strikingly cordate leathery leaves and *H. helix* 'Digitata' with its Passionflower foliage, found wild in Ireland, both belong here.

Gardeners long knew Irish Ivy had slightly different scale-hairs to that of Common Ivy. The 'Atlantic' species is indeed distinct in this respect. Those of *H. helix* have the rays bristling about in all directions like a hedgehog's back, but those of Irish Ivy and its associates have almost all the rays lying parallel to the leaf-surface. The result is very neat and distinct. This is best seen under a magnification of at least 75 x, though I have used the

eye piece alone and scanned the leaf under strong light. The new species will be described in a future paper by Hugh McAllister.

My thanks are due to all those people who sent samples and records and searched diligently, some keeping an eye open wherever they travelled, and also Allan Stirling who checked or found all the grid references. The density of dots in some areas probably indicates the zeal of the hunters rather than the plentifulness of the Ivy !

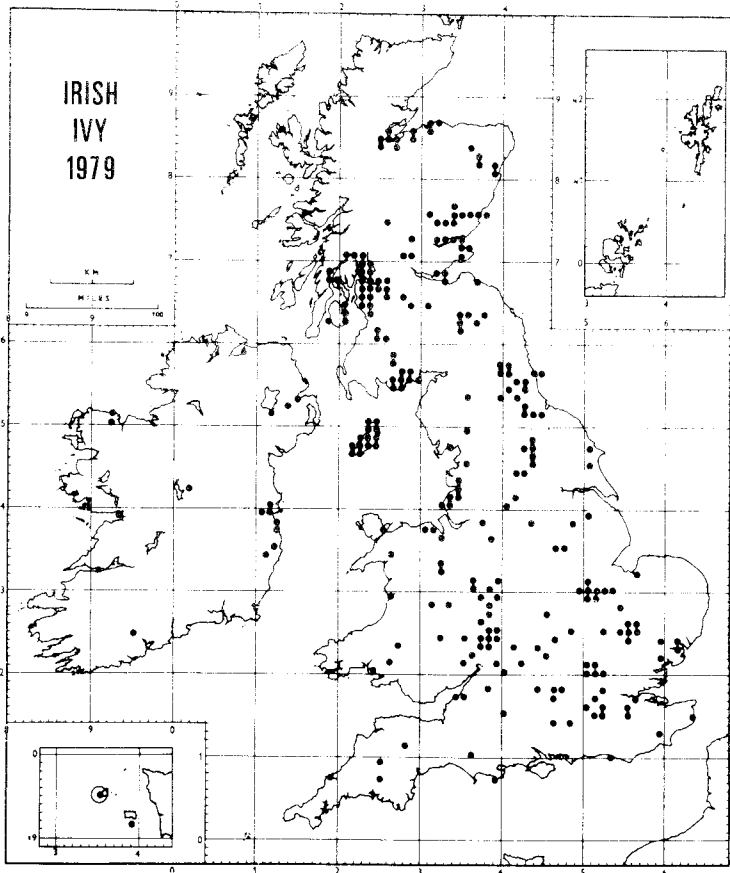
Special thanks must go to David McClintock and Heino Heime without whose initial encouragement the idea of a recording scheme would never have left the ground, and also Dr. Franklyn Perring who did the actual launching.

397 Pink Cards were sent, the total weight being 2lbs 6ozs ! And letters about Irish Ivy amounted to 276.

ALISON RUTHERFORD, Rosslyn Cottage, Church Road, Rhu, HELENSBURGH, Dunbartonshire, G84 8RW.

Postscript

Miss Rutherford informs us that after help with the Irish Ivy survey from Dr. McAllister it was decided to form the *Ivy Exchange*. This is now amalgamated with the Ivy Society to become The *British Ivy Society*, open to all studying the genus *Hedera*.



NOTICES

BOTANICAL SOCIETY OF THE BRITISH ISLES and THE LINNEAN SOCIETY OF LONDON

ADVANCE NOTICE

**INTERNATIONAL CONFERENCE
BIOLOGICAL ASPECTS OF RARE PLANT CONSERVATION**

**will be held at
KINGS COLLEGE
CAMBRIDGE**

**on
JULY 13th - 19th 1980**

Papers by speakers from Australia, Canada, Hungary, India, Kenya, Mexico, New Zealand, Poland, Russia, South Africa, Sweden, United Kingdom, U.S.A. and Yugoslavia.

With excursions to East Anglia and Devil's Dyke, Cambridgeshire. Further information on the Programme will be sent to all BSBI members in January 1980. If further details are required earlier please write to: The Secretary, International Conference Office, University Botanic Garden, Cambridge.

MARY BRIGGS

WARBURG MEMORIAL FUND

The Botanical Society of the British Isles and the British Bryological Society have jointly established a Fund, the purpose of which is to grant from time to time a travelling scholarship for field work to a botanist under the age of 25 (previously 21) years.

AN AWARD OF UP TO £100 WILL BE MADE IN 1980

Young botanists wishing to be considered for this award should write to the address given below with the following information :-

1. Full name and address of applicant;
2. Date of birth;
3. Education and examination record to date;
4. Proposed further education;
5. Short details of project involving travel, including an estimate of expenses and information relating to candidate's experience and other qualifications for carrying out the proposed work;
6. Name and address of two referees to whom Trustees can refer if necessary.

Successful applicants will be requested to submit a report on the work they have carried out as a result of the scholarship.

Application must be lodged not later than 31st December, 1979, and should be addressed to:

The Secretaries
Warburg Memorial Fund,
c/o Botanical Society of the British Isles,
Department of Botany,
British Museum (Natural History),
Cromwell Road,
LONDON, SW7 5BD.

GUIDE TO ENVIRONMENT ORGANISATIONS

The many and varied services that national and regional organisations concerned with the environment offer to help schools and colleges are set out in a new guide "*The Environment - Sources of Information for Teachers*" published by the Department of Education and Science.

The 132-page guide lists the organisations in alphabetical order, giving a brief description of each and an indication of the type of services offered. These include answering educational enquiries, and providing educational packs, publications, films, audio-visual aids and careers information.

Copies of "*The Environment - Sources of Information for Teachers*" are available free from Room 2/11, DES, Elizabeth House, York Road, London SE1 7PH.

DIRECTORIES OF FILMS AND LECTURERS

The Council for Nature has recently revised its Directory of Films and its Directory of Lecturers which are available from the Secretariat.

The film directory, in an A5 format, contains details of over 390 natural history and nature conservation films and information on content, length, availability and source. Price 45p incl. postage.

The Lecturers Directory lists approximately 75 people willing to talk on a variety of natural history and wildlife conservation subjects, throughout England, Wales and Scotland. A subject and area index is provided. Price 25p incl. postage.

Both Directories will be useful to schools, libraries, conservation and natural history societies, etc. and can be obtained from Mrs. Susan Joy, Acting Secretary, Council for Nature, Zoological Gardens, Regents Park, LONDON NW1 4RY.

PLANTS IN FOLKLORE

The University of London, Department of Extra-Mural Studies announce a course with this title to be held at the British Museum (Nat. Hist) and given by Mr A.R. Vickery of the Museum's Botany Department.

The lectures will be on Tuesdays at 6.30pm commencing 2nd October 1979, and the fee for the course is £5.00.

Further details from ;

Mrs Julie Robins, University of London Extension Courses, 26 Russell Square, London, WC1B 5DQ.

COMPUTER TECHNOLOGY AND THE BOTANIST

The London Natural History Society invites B.S.B.I. members and others interested in the subject to a lecture, illustrated with slides, by R.J. Pankhurst of the British Museum (Natural History) Botany Department entitled "Computer Technology at the Service of the Botanist" in the Linnean Society lecture room, Burlington House, Piccadilly, on Wednesday 21st November 1979 at 6.30pm.

QUEKETT MICROSCOPICAL CLUB

Their Fifth Annual Conversazione and Exhibition on MICROSCOPY AND MICROSCOPES will be held at the British Museum (Natural History) 10 a.m. to 5.30 p.m. Saturday 13th October, 1979.

BSBI Members and visitors are cordially invited. Tickets (gratis) may be obtained by sending a large stamped addressed envelope to Mr. H.S. Henderson, Administrator, Quekett Microscopical Club, 6 Farringford Close, Chiswell Green, St. Albans AL2 3HZ.

ALIENS and ADVENTIVES

ADVENTIVE NEWS 14

Compiled by Eric J. Clement

FLORA OF REFUSE TIPS

The flora of refuse tips is poorly documented, presumably because it is often regarded as 'unworthy of print'. The well-illustrated (with photographs and line-drawings) classic book by Arnold Darlington *Ecology of Refuse Tips* (Heinemann Educational Books Ltd., London, 1969; 138 pp.) is, perhaps for this reason, not at all a reliable source for the flowering-plant species typically occurring on tips. The statements about casuals and even established plants frequently do not match my (& your) experience (e.g. the report, p. 31, of *Silene muscipula* "occurring widely and frequently on refuse dumps" – I have never seen a Br specimen of this plant). Some outdated facts are clearly culled directly from CTW. The status of some casuals given in CTW is, alas, now often long out-of-date, being largely based, I imagine, on the 1930-1940's, when so many records of casuals were enthusiastically published. Much has changed since then, e.g., p. 132 says *Diploptaxis eruroides* is "Naturalized as a weed of arable and waste land in S. England and frequent as a casual". I have again never encountered a solitary Br specimen: all your post-1950 records, please, to me for a summary in the next *News* . . . Are there any ?

In short, I would greatly welcome tip records, most especially if on 5 x 3 ins. slips. I am trying to reassess the current status of all casuals – certainly don't rely on CTW without confirmation from later sources !

Dr H.J.M. Bowen sent in a list of largely unusual species occurring on Oxford corporation tip, Port Meadow (Oxon) during 1978. For most there are voucher specimens at RNG; they were *Ambrosia trifida*, *Gilia capitata*, *Hirschfeldia incana*, *Linaria supina* (new to me as a tip plant), *Misopates calycinum* Rothm., *Rubus parviflorus*, *Saponaria ocymoides*, *Stachys annua* (see *BSBI News* 12 for a drawing and comment) and *Tetragonia tetragonioides*. One year earlier he found *Cicer arietinum*, *Phalaris paradoxa*, *Physalis peruviana* and *Symphoricarpos orbiculatus*.

Also in 1978, HJMB reports *Cotoneaster dielsianus* and *Dipsacus laciniatus* from an old tip in a gravel pit at Stanton Harcourt (Oxon), the latter collected by W.D. Campbell and now in RNG. The previous year there was *Achillea ageratum* (a few plants found by WDC), *Matricaria decipiens* (well established) and *Polypogon monspeliensis* (scattered).

Clearly the prediction of tip species is not easy ! Many local factors affect each site, and successive years are not necessarily at all similar.

MORE ABOUT MANURES

C.G. Hanson confirms the prominence of bird-seed and food-plant aliens in sewage-sludge manure. At Rye Meads Sewage Works, Roydon (N. Essex) he listed plants on the sludge in 1975-1977; cropping up each year was *Citrullus lanatus*, *Datura stramonium* (incl. var. *tatula*), *Echinochloa utilis*, *Helianthus annuus*, *Lycopersicon esculentum*, *Panicum mileaceum*, *Phalaris canariensis*, *Physalis peruviana* and *Silybum marianum*.

Also present, but not every year, were *Abutilon theophrasti*, *Amaranthus quitensis*, *A. retroflexus*, *Ambrosia artemisiifolia* (see drawing), *Atriplex hortensis*, *Brassica rapa*, *Cannabis sativa*, *Centaurea diluta*, *Chenopodium ficifolium*, *Cucurbita pepo*, *Cuscuta campestris* (1976), *Echinochloa crus-galli*, *Glycine max*, *Guizotia abyssinica*, *Lolium temulentum*, *Melilotus alba*, *Papaver somniferum*, *Nicandra physalodes*, *Sesbania exaltata* (1975; Hb. CGH & Hb. EJC), *Setaria viridis* and *Sorghum bicolor*.



Ambrosia artemisiifolia L. RAGWEED

C.G. Hanson also reports an extraordinary, floriferous pile of farmyard manure at Latchford (Herts), in June 1967. Four taxa occurred in hundreds: *Amaranthus retroflexus*, *Datura stramonium*, D.s. var. *tatula* and *Ipomoea hederacea* Jacq. I know of no parallel record! I hasten to add that it was not the pretty, ornamental Morning Glory photographed and described in Polunin's *Flowers of Europe* under this name as no. (1033): the species there should be correctly re-labelled as *I. acuminata* (Vahl) Roemer & Schultes (*I. learii* Paxton). True *I. hederacea* is a weedy annual from tropical America.

Mrs E. Hesselgreaves told me of her finding of several plants of *Amaranthus albus* L. and *A. retroflexus* L. on horse dung at Anstey Pastures, near Leicester, v.c. 55, GR SK/533.078 in Sept. 1970. Vouchers are preserved in LSR.

MORE BIRD SEED ALIENS

Our cover drawing of *Brachypodium distachyon* (L.) Beauv. is a scarce, but distinctive, adventive. It was, e.g., a garden casual, originating from wild bird food, at Tunbridge Wells (Kent) in August 1976. Mrs J. Denton. Conf. EJC. Graham Easy's fine drawing was also of a 1976 plant, growing on dumped sewage at Cambridge sewage farm, where it could have been a wool alien. It is well-known in wool, and easily recognised by its annual habit, a character which combined with others, probably justifies its position in its own monotypic genus as *Trachynia distachya* (L.) Link. It is native from the Mediterranean area to W. Pakistan.

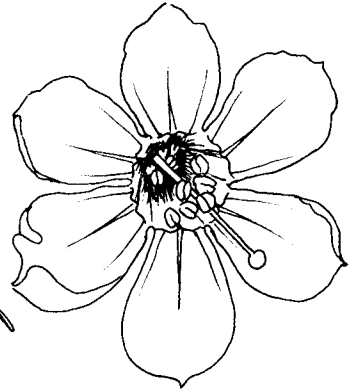
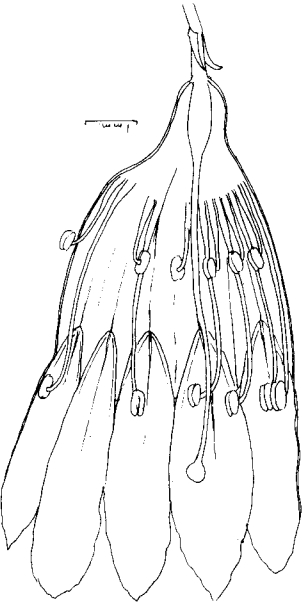
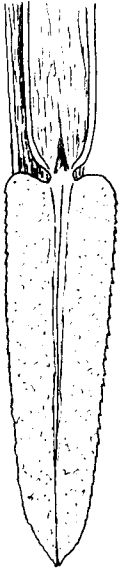
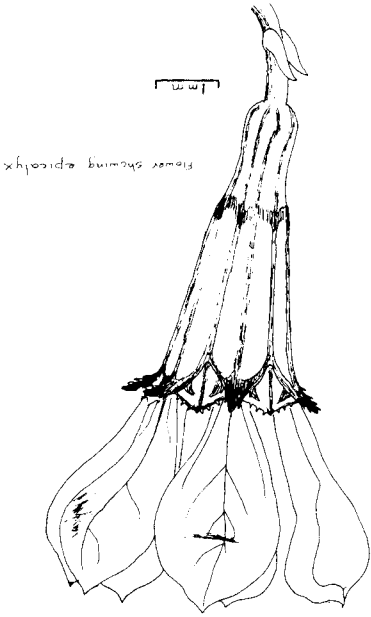
During 1977 Mrs J. Swanborough made repeated visits to a rich patch of aliens growing from dumped bird-cage cleanings at Derry Hill, Chippenham (N. Wilts) where, amongst others, were (all det. EJC): *Ambrosia artemisiifolia* (see drawing of this species by Trevor Evans of a plant from Avonmouth Docks in 1977), *Amni majus*, *Asperula arvensis*, *Bupleurum subovatum*, *Centaurea diluta*, *Hirschfeldia incana*, *Lepidium bonariense* L. (4 plants, and new to my records as a bird-seed alien), *Melilotus indica*, *Ridolfia segetum*, *Sinapis alba*, *Teucrium resupinatum* Desf. (2nd? Br record, and again as a bird-seed casual; a white-flowered individual, native of only SW Spain and NW Africa) and *Vaccaria hispanica*, *Bromus inermis* and *Lolium multiflorum* x *perenne* were also present close-by, but sown, grass mixtures were surely responsible?

Dr H.J.M. Bowen sent in a valuable list of bird-seed aliens in a garden at Lechlade (Glos) during 1978, several of which are preserved in RNG. All det. HJMB; they included *Amni visnaga*, *Asperula arvensis*, *Bupleurum sobovatum*, *Centaurea diluta*, *Crucianella angustifolia* (cf. a further record below), *Digitaria sanguinalis*, *Kickxia elatine*, *K. spuria* (both new to my bird-seed list), *Lathyrus aphaca*, *Lythrum junceum* (shortage of space prevented publication of Trevor Evans drawing of this species promised in the last *News*, pp. 16-17 -- it materialises here!), *Ononis baetica* Clemente, *Panicum mileaceum*, *Pisum sativum* ssp. *elatius*, *Ridolfia segetum*, *Scorpiurus muricatus*, *S. vermiculatus* L. (1st? Br record as a bird-seed plant), *Setaria verticillata*, *Sorghum halepense*, *Teucrium resupinatum* (again! -- see above) and *Vaccaria hispanica*.

Crucianella angustifolia: Bird-seed alien in garden, Wetherby (Yorks), July 1978. H. Noltie. Det. EJC. (see description in *BSBI News* 16, p.16).

Trigonella caerulea (L.) Ser.: Tip, City of Bath (N. Somerset), Oct 1978. D. Green & R.D. Randall. Hb. EJC. Presumably of bird-seed origin, as it was growing with *Centaurea diluta*, *Coriandrum sativum*, *Echinochloa crus-galli* var. *submutica* (det. CEH), *Lepidium sativum*, *Nicandra physalodes* and *Phalaris canariensis*. One young plant only was found and sent in as "Medicago sativa variant?", which it does resemble, but its inflated and beaked fruit is unlike any Medick. It is cultivated for fodder throughout much of Europe (not Br!) and is widely naturalised or casual, but recent Br records are extremely few. It is unknown as a wild plant.

Lythrum junceum Banks & Solander



SOME LEGUMES (TARES)

The Rev. C.E. Shaw and J.J. Zawadzki found a remarkable growth of legumes in a sandy field near Mere Clough, between Manchester and Prestwick (S. Lancs) in June 1978. Amongst a few scattered Broom bushes, masses of *Vicia tetrasperma* and *V. sativa* aggr., were luxuriant plants of the following species :

Lathyrus hirsutus L. : Growing, with typical plants, was a colour variety with blue flowers – it had the usual light blue wings, but the standard was a dark blue (when fresh).

L. inconspicuus L. : Fresh flowers were bright red, but they quickly dried to a purplish colour, hence the colour error in *Flora Europaea* 2 (which, to be fair, was forewarned in the generic description on p. 136).

Trifolium aureum Pollich : (The only sp. not seen and conf. EJC.).

Vicia lutea L. ssp. *lutea* : A very robust, alien form.

V. pannonica Crantz ssp. *striata* (Bieb) Nyman : Fresh flowers were a dingy red-purple (and drying to the same colour !), not yellow as in the type subspecies.

V. villosa Roth ssp. *villosa* : Also seen here by JJZ in 1976, when no other interesting plants were found, and taken to be “a very luxurious *V. cracca*.”

Voucher specimens have been preserved in Herb. JJZ. Discarded, agricultural mixed-legume seed seems likely to me – but is this mixture available commercially ? (The presence of a var. of *Trifolium pratense* with lilac-white flowers was one clue). Maybe they result from ‘tare screenings’, available these days from corn merchants at about 9p per lb and mainly used as food for pigeons. (What grows thence ?).

A very similar crop of aliens, again restricted to tares only, occurred on disturbed ground surrounding a new swimming pool at Freshwater (Isle of Wight) in June 1979. B. Shepard, who sent his herbarium pressings to me for determination, could offer no explanation for their presence. The plants involved were *Lathyrus annuus*, *V. bithynica* (the third time that these two rarities have recently occurred side-by-side ! – cf. *BSBI News* 18, p. 13), *V. hirsuta* (beware how this Br species tends to key out as *V. vicoides* in the *Flora Europaea* 2 key, as its calyx-teeth can exceed 1½ times the calyx tube length), *V. lutea* ssp. *lutea* (first record for I.O.W. this century), *V. sativa* ssp. *nigra* and *V. villosa* ssp. *varia*.

Vicia tenuifolia Roth (*V. cracca* L. ssp. *tenuifolia* (Roth) Gaudin) repeatedly crops up in Br and reliably persists as a perennial. Some narrow-leafleted colonies, I note, tend to key out in *Flora Europaea* 2 to *V. dalmatica* A. Kerner (*V. cracca* ssp; *stenophylla* Vel.), but I am unhappy about the value of the separation characters – these two taxa certainly merge in parts of their native range. Mrs B.H.S. Russell remarked on the fewer than normal flowers on the huge patch at Lakenheath Air Station (W. Suffolk), June 1978, which is another *V. dalmatica* character.

B.R. Fowler also reported *V. tenuifolia* growing with “*V. hybrida*” on waste ground in 1977 at Bilston (Stafford), the latter determined at the British Museum, but being described as with 2-3 flowers at some nodes, I feel sure that it was *V. pannonica* ssp. *pannonica*.

EUPHORBIA OBLONGATA GRISEB. IN BRITAIN

Euphorbia oblongata Griseb.: Wolferton, King's Lynn (W. Norfolk), Sept 1977. Comm. R.C. Stern & E.L. Swann. Hb. EJC. One plant appeared spontaneously from an unknown origin in the garden of Dr C.P. Petch. Det. Dr A. Radcliffe-Smith (at Kew). “It is always best to have underground parts or at least the basal part of the stem of a *Euphorbia* to hand to facilitate identification, for there are many characters at that level. However, your

plant is identifiable from the very distinctive capsules with their small rather sparse hemispherical warts. It is a perennial and native to the S. Balkan Peninsula, Aegean region and Western Turkey".

In K there is one previous gathering from Br, establishing it as an alien here, namely in a meadow at Newport, Isle of Wight. J.W. Long, comm. B.T. Lowne, *H1915/38*, 10 Aug. 1938. Conf. ARS. There are two sheets of it, well-grown and with plenty of seed, but I have no evidence of its persistence here. It could be easily overlooked in Br as *E. dulcis*, or even as *E. platyphyllos* (an annual). Indeed, the plant once grown (1968, Hb. EJC) by both J.E. Lousley and the South London Botanical Institute as "*E. hyberna*" now appears, to me, to be this species, but, sadly, I do not know of its provenance. As in the King's Lynn specimen, the stem is densely long-pubescent only very close to the nodes, hence I erred in the *Flora Europaea* 2 key which happily works on native specimens which are usually more conspicuously hairy-stemmed.

I apologize if *your* record is omitted from these notes: I cannot find room to do full justice to all the excellent records that I receive. Please keep sending specimens.

ERIC J. CLEMENT 13, Shelford, Burritt Road, KINGSTON, Surrey KT1 3HR.

AMARANTHUS SPECIES IN CAMBRIDGESHIRE

a preliminary examination

Whilst investigating the Cambridgeshire distribution of *Amaranthus* species it became obvious that recent sites found of *A. hybridus* L. outnumbered *A. retroflexus* L. This conflicted with information appearing in the *Flora of Cambridgeshire*, 1964, thus it seemed prudent to examine the pressed specimens housed in the Cambridge Herbarium (CGE). I was there able to compile a composite sketch of the several *Amaranthus* species available for comparison.

(A) *Amaranthus caudatus* L. Both green and the more common red forms of the familiar garden plant Love Lies Bleeding has occurred on Cambs. rubbish tips.

(B) *Amaranthus retroflexus* L. This shares with *A. caudatus* the truncate tipped perianth segments, but these are more conspicuously spatulate and the inflorescence is erect, compact and straw coloured. In Cambs. this species is usually a casual of waste ground and rubbish tips, at one locality in Fenland however it is a persistent arable weed.

(C) *Amaranthus cruentus* Mansf. This shares the branched and often drooping panicle of *A. caudatus*, but has lanceolate perianth segments. Found on one rubbish tip site near Cambridge.

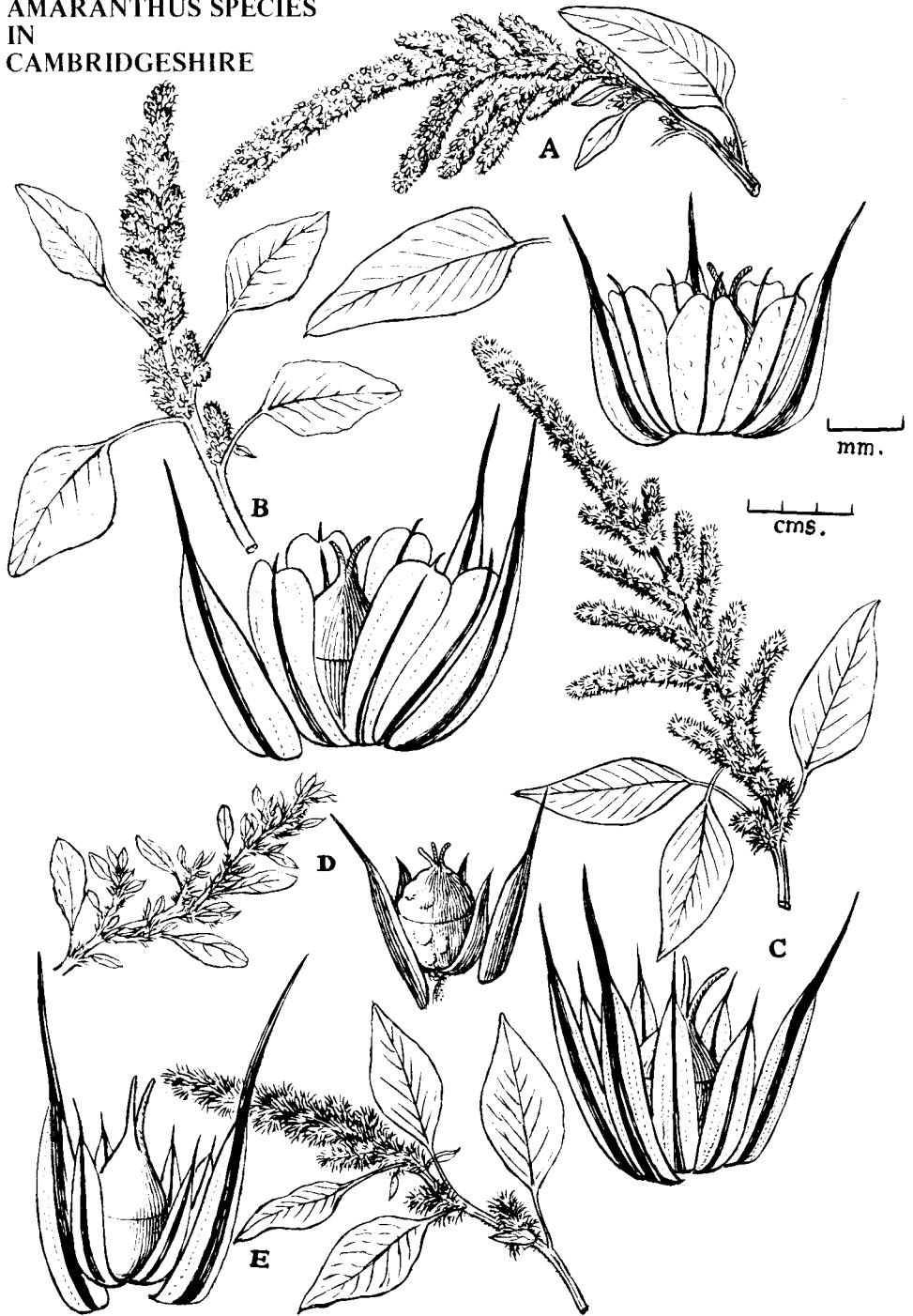
(D) *Amaranthus albus* L. A spiny plant with small leaves and only three perianth segments per fruit which has made several appearances in Cambs.

(E) *Amaranthus hybridus* L. Very similar to *A. cruentus*, which is often considered to be an extreme form of *hybridus*, but the long bracteoles are twice the length of the perianth segments (only 1½x in *cruentus*) and the plant has a more compact inflorescence. In Cambs. this is a frequent casual of rubbish tips.

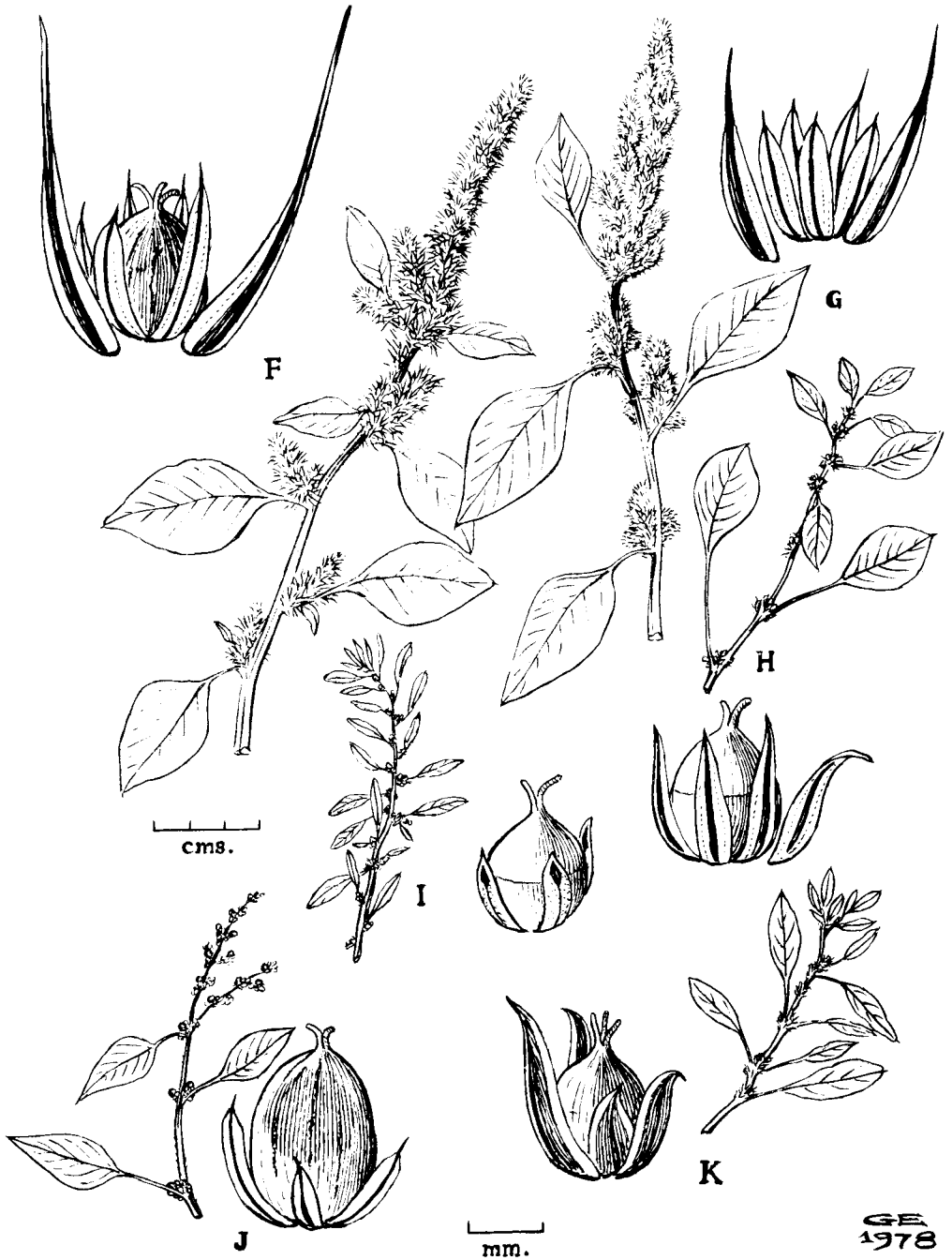
(F) *Amaranthus bouchonii* Thell. This spinious bracteoled plant with non-dehiscent fruits, first reported in Norfolk in 1949, has been noted at one Breckland-edge site in Cambs. *A. hybridus* has fruits that dehisce transversely, otherwise it agrees closely with *bouchonii*.

Continued on page 20 →

AMARANTHUS SPECIES
IN
CAMBRIDGESHIRE



AMARANTHUS SPECIES IN CAMBRIDGESHIRE



GE
1978

(G) *Amaranthus* ?sp. This plant, found in a chicken run at Thriplow, Cambs. in 1964, had been labelled *A. hybridus*, but with perianth segments much as *A. cruentus* and the general appearance of *A. retroflexus* it is possible that this is the fertile hybrid *A. hybridus* x *retroflexus*, which is rather common outside Britain.

(H) *Amaranthus graecizans* L.ssp. *graecizans*. This ssp. more or less merges with ssp. *sylvestris*.

(I) *Amaranthus graecizans* L.ssp. *sylvestris* (Vill.) Brenan, was drawn from a Greek plant, but this sub-species has been reported from Cambridgeshire.

(J) *Amaranthus deflexus*. Has obvious, inflated and indehiscent fruits.

(K) *Amaranthus blitoides* S. Watson. Spineless, but otherwise similar to *A. albus*, this Cambs. specimen was labelled *A. ?crassipes*, but *blitoides* was reported from the same area at a later date.

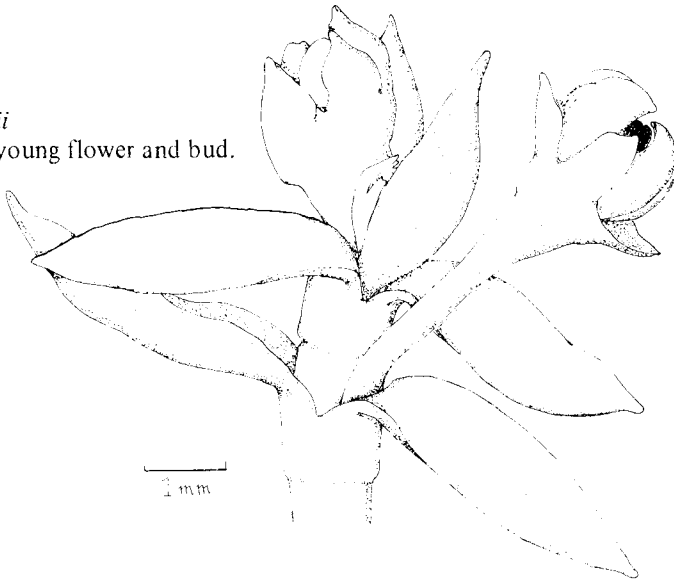
The above list was compiled after receiving valuable comments from E.J. Clement, who not only helped in the identification, but also provided guide-lines on the validity of the present division of species of *Amaranthus*. No doubt more will be published on this subject in the near future.

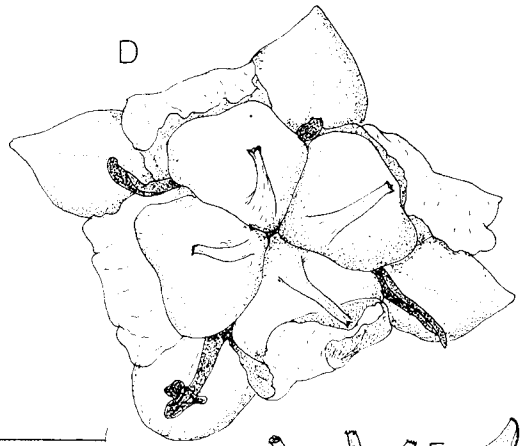
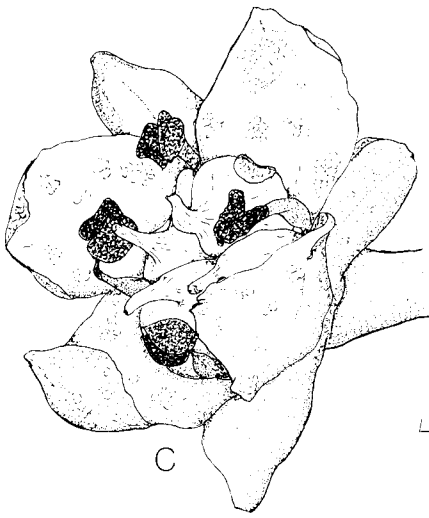
G.M.S. EASY, 11 Landbeach Road, Milton, CAMBRIDGE CB4 4DA.

***CRASSULA HELMSII* (T. Kirk) Cockayne**

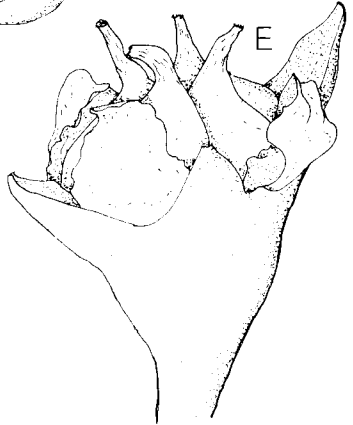
In *BSBI News* 19, we published an illustration, derived from Helen Aston's book *Aquatic Plants of Australia*, to accompany an article on this species by Anthony Vaughan. Since then we have received, the excellent set of drawings by Lysbeth Richards (nee Kemp) reproduced opposite, which should assist identification.

Crassula helmsii
Stem tip with young flower and bud.





1 mm



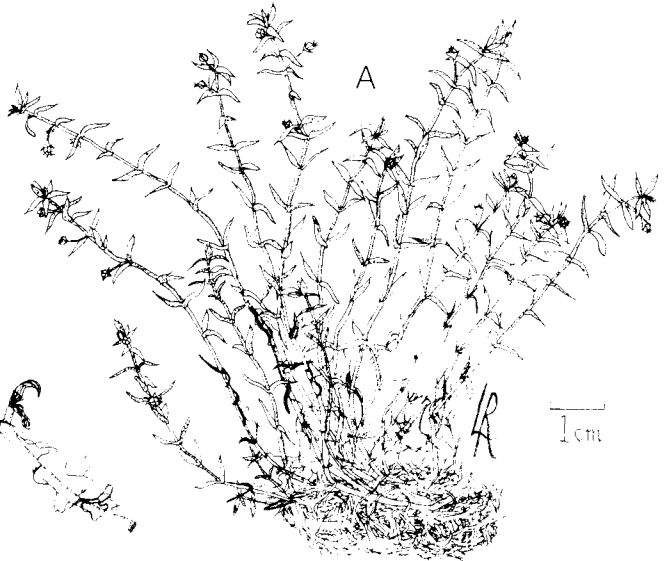
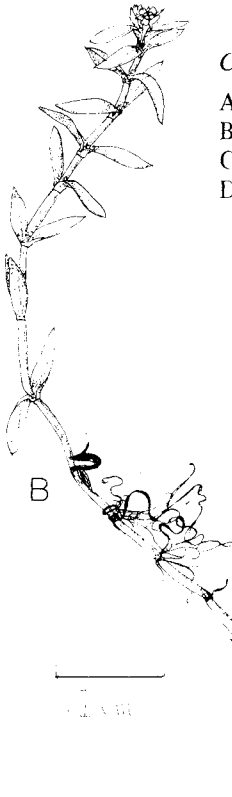
Crassula helmsii

A : Habit sketch

B : Single plant

C : Flower

D & E : Two views of young fruit



REQUESTS

VIOLA REICHENBACHIANA JORD.

My experience of this plant in the wild in South Devon is that it usually occurs in shady woodland on limestone, although not exclusively so. Here, on my gravel drive in Totnes, it grows in the open at the foot of a low wall, and the plants are extraordinarily vigorous and floriferous, forming large clumps, and each plant bearing from 30 to 50 flowers. It is apparently growing "wild" in this situation and, although the local rock is volcanic ash, the drive is gravelled with limestone chippings which could, I suppose, indicate the source of the plants.

I should be interested to hear whether other botanists have met with *V. reichenbachiana* in similar situations.

E.N. MASSON PHILLIPS,
Chestnut Cottage, Maudlin Road, TOTNES, Devon TQ9 5EX.

HISTORICAL FLORA OF THE AVON GORGE, BRISTOL

Mr. C.M. Lovatt, Mr. A.L. Grenfell, Dr. L.C. Frost, and Dr. M.H. Martin, hope that, following completion of Mr. Lovatt's Research Studentship on the Avon Gorge, and its flora and vegetation, in October 1980, it should be possible to produce this flora. The literature contains records for over 900 species of vascular plants, and over 200 species of Bryophytes. The area concerned, includes Clifton and Durdham Downs (v.c. 34) and Leigh Woods (v.c. 6).

Any records from members would be most welcome, especially for critical taxa, or where estimates of population sizes of rare plants were made.

C.M. LOVATT, Dept. of Botany, Bristol University, Bristol BS8 1UG.
A.L. GRENFELL, 19 Station Road, Winterbourne Down, Bristol BS17 1EP.

LOOK OUT FOR BROOMRAPES

Please make an effort to record any *Orobanche* species during the field season, especially the rare species listed.

Records are very much in arrears for this interesting group.

Orobanche loricata *Orobanche maritima* *Orobanche purpurea*

Orobanche rapum-genistae *Orobanche reticulata*

L. FARRELL

Nature Conservancy Council, PO Box 6, Godwin House, George Street, HUNTINGDON,
PE18 6BU.

ELODEA SPP.

Dr. David Simpson still requires specimens of *Elodea*s spp. from Britain - preferably living and flowering, although herbarium specimens are also welcome. (See *BSBI News* No. 21, p.20). Please send to him at University of Lancaster, Dept. of Biological Sciences, Bailrigg, Lancaster LA1 4YQ.

NOTES FROM THE SOCIETY FOR PROMOTING NATURE CONSERVATION (SPNC)

Since I left the Biological Records Centre for the SPNC 6 months ago several friends have asked me how I have settled in after making such a big change, to which I have had to reply that the change does not seem anything like as big as I had expected. More often than not, though the Institutions I am dealing with are different, the people are the same -- the choice of hats available to a British Naturalist is kaleidoscopic.

Under Ted Smith's guidance the SPNC has developed into the Association of Nature Conservation Trusts and much of my work involves visiting the Trusts to discuss their development and the development of the Association. Frequently I meet the Executive Committee or have an opportunity of addressing the Council of a Trust, and what has been especially delightful has been to see amidst a sea of strange faces the friendly and familiar profile of the BSBI Recorder, or a prominent Society member, or to have someone come up afterwards and introduce themselves as a member whom I have been writing to for years but never met.

The BSBI has, of course, a long and honourable history of involvement with nature conservation and every active vice county recorder is bound to find themselves frequently consulted on the importance of sites and species by their Trusts or the NCC. Contacts will have been particularly close where there is a strong and efficient local Biological Records Centre. I have always regarded these as an essential element in the framework of conservation and it has been encouraging to see that they continue to spread so that the eventual goal of at least one Records Centre for each Trust may yet be achieved.

The BSBI has has a long and fruitful association with the SPNC at national level. With its own Conservation Committee the BSBI was invited to send three members to the first meeting of the Conservation Liaison Committee (CLC) of the SPNC when it was formed 11 years ago. The Society is now represented by Edgar Milne-Redhead, Peter Wanstall and Stan Woodell, but with David Streeter as Chairman and James Cadbury, Richard Fitter, John Hope-Simpson, Bill Lacey, Derek Ratcliffe and myself at present wearing other hats, the BSBI contribution to this major national conservation committee is not inconsiderable. Many ideas first developed by the BSBI Conservation Committee have been brought to CLC and then been adopted by other societies -- notable the *Code of Conduct* and the three plant protection posters.

The *Red Data Book*, which is a monument to the contribution that BSBI members have made to conservation, was the particular baby of the Conservation Liaison Committee. They waited patiently for 8 years for its production and eventually, with the aid of a World Wildlife Fund grant, it was published by SPNC in 1977. In the last few months Lynne Farrell and I have prepared a *Supplement* covering new information which has come in during 1977 and 1978 which will be issued later this year.

I hope I may find time to continue to be associated with future editions of the *Red Data Books* so that my official links between BSBI and SPNC will continue to grow. Needless to say my unofficial, private, links with the BSBI are as strong as ever.

FRANK PERRING, SPNC, The Green, NETTLEHAM, Lincoln. LN2 2NR.

SUMMER SNOWFLAKES IN IRELAND (OR THE PECULIAR SPRING OF 1979).

On Saturday 28th April, Karen Jefferies and I boarded the boat for Dublin with the express aim of recording the Summer Snowflake (*Leucojum aestivum*) in Eire. I was in receipt of a Praeger grant, the award just sufficient to cover the cost of petrol on our week's journey.

We started in Co Waterford, having consulted Miss Scannell at the Dublin herbarium, and delved into the nuances of such vague references as 'R Clodiagh, Waterford 1900'. After a very pleasant morning spent investigating Lady Waterford's estate, unfortunately drawing a blank except for dippers, we ventured on to the nearby rubbish dump. A debate ensued as to the best way to gain the river bank without crossing the somewhat noxious terrain. However, it was decided that the quickest way was straight across the middle and, in the interests of science, we ploughed through. On reaching the edge Karen exclaimed, "There it is!" and collapsed into laughter, for our first specimen was partially hidden under a battered car. We were to discover that many of the Southern Irish sites are associated with dumps. I know there is some discussion as to whether the species is native, but there does seem to be active discrimination against it.

The next area searched was around Darrow, Laois. None of the specimens had further details, but armed with Praeger's 'Botanist in Ireland', who can go wrong? I never fail to marvel at this man's accuracy and thoroughness. He mentions that he made holes in his boots to let the water out - he was probably surveying *Leucojum* at the time. Having walked the '½ mile below Darrow', we were confronted by probably the best stand of the Summer Snowflake that I have ever seen. It was almost a pure stand of approximately 5000 plants, and although only a proportion were in flower, it was a superb spectacle.

Our success rate of 50% encouraged us, as many of the records were before 1930. We became more adventurous and decided on a long drive to Dingle to look at the most westerly locality. Twenty miles 'within sight' of our goal, we were driven to a halt by a fierce blizzard. I have been to Dingle before and know that it usually has a clement climate, hence *Pinguicula grandiflora*, the large-flowered Butterwort, a species I have still to see. More large snowflakes fell in half an hour than we were to see on the whole trip. (An Irish statement) Two inches of snow clothed the hillsides and school children returning home were marooned and had to revert to that traditional form of Irish transport, Shank's pony. We changed tack and wended our way down to Ballingarry, near Limerick.

One of the best sites in Limerick is, you've guessed it, by the city dump. Here it grows in a rich open meadow although not many plants were in flower. Whitehall Creek nearby is one of the old, classic localities. Local people, living on the estuary, were amazed when we informed them that it is a rare plant, as they were surrounded on three sides by it.

All Limerick sites appeared to be late in flowering, as *Leucojum* was only in bud. These were interesting from another aspect also, in that many were tidal, and the clumps were often found along the banks of the Shannon sitting right on the edge of the mud banks. It was here I came to grief in my enthusiasm to photograph the plant in situ, and slowly slithered down into the mud flat. Fortunately, it was low tide, otherwise I would undoubtedly have been totally immersed in my research. Another hazard in this district is the annual reed cutting. The Summer Snowflake is to be found in abundance scattered amongst the *Phragmites* beds in Ballinacurrd Creek. Unfortunately, they cut the reed off at a height of about 18 inches. Now if you have ever tried to take a close-up of a plant growing in this habitat you will appreciate the discomfort tolerated in order to achieve one's end result, so to speak.

LYNNE FARRELL, NCC, Godwin House, George Street, HUNTINGDON, PE18 6BU.

LETTERS

MEMORIAL TABLET TO TED LOUSLEY

BSBI members and friends of Ted Lousley may be interested to know that a memorial tablet to him has been put up in the Church of St. Olave, Hart Street, London EC3 and will be dedicated during the 11 a.m. service on Sunday, 28th October. Any friends who would like to attend will be welcome. The tablet is adjacent and at right angles to that commemorating William Turner "the father of English Botany", making quite a little botany corner there now.

I had the idea of holding his memorial service there (in February 1976) because he was interested in the church, which was quite near his old office in the City, and also because of the connection with William Turner, which Ted had often mentioned to me. The roof was off St. Olave's during the war as a result of bombing, and Ted used to go there in his lunch hour and at weekends and record the plants, and he wrote sundry notes about the church, and the surprise Turner would have had to see some of the plants there, which were not known in this country in his day. After that service several friends suggested it would be nice to have a tablet in his memory there, and after three years it has at last materialised! It is quite a plain tablet in grey Nebrasina marble, with a quotation from the book of Job, the reference to which I found in Ted's diary when I was going through it after his death. (Job. 39 v. 8. "The range of the mountains is his pasture, and he searcheth after every green thing".) So he really chose his own epitaph; I could not think of anything more descriptive of Ted. And as his first name was Job it seemed all the more appropriate.

Those interested will find full details of William Turner (Gulielmo Turnero as he is styled on his memorial) in the book about him published by the Ray Society in 1965, for which Dr. W.T. Stearn wrote some descriptive material. Turner was a parson, botanist and doctor, and one of the early reformers, on account of which he had to flee abroad during the reign of "Bloody Mary", to pursue his botanical studies on the Continent. It is said he at one time had a little herb garden behind St. Olave's; he certainly lived in the City for the last years of life. Both he and his son have memorial tablets there.

DOROTHY LOUSLEY, 14 Javelin Court, Streatham Common N., LONDON SW16 3HL.

KALMIA ANGUSTIFOLIA L. IN SURREY

Kalmia angustifolia L. A colony of 10-15 plants in a shallow, boggy depression dominated by *Calluna*, *Erica tetralix* and *Molinia*, Wisley Common, Surrey v.c. 17 GR 51/068.585 April 1979 A.C. Leslie **Herb.A.C.L.** This evergreen species occurs naturally in boggy areas of north-eastern North America. Although this colony is apparently new, one other, much larger patch was shown to R.P. Scase (present Librarian at the R.H.S. Garden nearby) in 1951, by his predecessor N.K. Gould. The latter described it then as 'established for many years', and although his site is now completely overgrown, the species seems to have been known on the common for at least 30-40 years. The records in Lousley's *Flora of Surrey* are from the Chobham area (c.6 miles away).

It is readily told from other *Kalmia* species by its flat, evergreen leaves, 20-60 x 8-18mm, usually borne in whorls of three, glabrous below and bearing its flowers on axillary shoots.

A.C. LESLIE Monksilver, 72 Boxgrove Road, GUILDFORD, Surrey GU1 1UD.

THOUGHTS ON THE HON. SECRETARY'S HOPE THAT THERE WILL BE NO RESIGNATIONS BECAUSE OF THE SUBSCRIPTION INCREASE.

We have received from a member who wishes to remain anonymous a lengthy tribute to the exceptional value for money a subscription to BSBI represents, despite the increase. We give below a shortened version of our correspondent's remarks, for which we are grateful.

Have you considered what a bargain membership of BSBI is? Are you making the most of it? Could you not get even more from it? Just check. As a completely passive member you receive three serial publications: *Watsonia* (twice a year) containing a high proportion of all taxonomic work on the British flora, *BSBI Abstracts* reporting ALL published work on British plants, as well as the more informal and immensely readable *BSBI News* (three times a year). If you live in Wales and Scotland you get further local communications.

If you want to be more active, there are a dozen or so expertly-led field meetings held at widely separated places, as well as about ten indoor events, conferences, symposia, etc. At these, or by post you will be able to contact specialists (named in the membership list) who can identify any plant you are likely to find in U.K. You can make a positive contribution to the knowledge of British plant life by taking part in one of the several censuses, surveys and network projects currently under way. You do not have to possess high qualifications to join in this work. County Recorders (also listed) have special knowledge of sites of particular botanical interest while, if you feel moved to give active help, the Conservation Committee will be only too glad to hear from you. As for reading matter, a large number of publications are offered at a discount.

Most important perhaps is the opportunity you have to make contact with over two and a half thousand botanists who are only too ready with friendly help and advice, particularly valuable to anyone starting out on serious botanical study.

Do you realise, that because there are BSBI members in the botanical departments of nearly all national institutions and universities, it is possible for you to avail yourself of the expertise and resources of such places?

If all this does not add up to one of the biggest bargains going, it would be difficult to know what does. Are you getting the maximum return from the investment of your subscription.

“Ordinary Member”

(Our contributor has omitted perhaps the greatest asset any society could have, viz Mary Briggs, Britain's most knowledgeable and completely indefatigable Hon. Gen. Sec. Ed.).

VANDALISM or THEFT

There can't be a member of BSBI who didn't feel outraged and disgusted by the news (D. Tel. 4.7.79) of the desecration of the bee orchid colony at Burham on Sea, and will not sympathise with Connie Saunders, not only over the loss of the orchids themselves, but the frustration she and her team of girls must feel at this vicious termination of their scientific work.

According to press reports, the deliberate digging up of just those plants on which most interest was concentrated, looks like intentional theft.

It is only a remote hope, but those members who have contacts also in the horticultural world, might keep their eyes and ears open and even make a few discreet enquiries.

With such people about, how do you keep anything safe! (Ed)

Giant Hogweed

I read the note on Giant Hogweed in *BSBI News* no. 21 with the greatest of interest. As one who has all her life suffered in encounters with the various native plants of the Hogweed, Cowparsley etc. type, and at present with the Giant Hogweed in the garden, I was pleased to have, at last, an explanation of why burns and blisters appear on some occasions and not on others. Happening to have a rather noticeable burn on my forehead when visiting my doctor the other day I discussed it with him. He further told me there is a drug with similar properties to Hogweed sap which is used to paint the skin of patients whose complaints would be alleviated by increased absorption of sunlight.

I would like to support the idea of G. Nall of Birmingham writing in the same issue, on the use of common names for native plants. Though some learned members may shrink from the idea, perhaps the BSBI might note the practice of The Royal Society of the Protection of Birds, which has very much gone in the direction of "common names" and has built up a large membership by communicating on the level of the mass. This is what brings strength these days.

MISS. M. HATCH-BARNWELL

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PLANTS AND BEES.

The publication of Proctor & Yeo's *"The Pollination of Flowers"* in 1973, the Newcastle Conference in 1977, followed by our own Pollination meeting at the Cambridge Botanic Garden a year later, have felicitously catalysed an on-going collaboration between botanists and entomologists to their mutual benefit.

The International Bee Research Association (IBRA) headed by Dr. Eva Crane (who participated in the Cambridge meeting) have been very active in promoting this movement on behalf of beekeepers.

The publication last year of the *Calendar of Bee Plants* has been followed by another re-print from *Bee World* entitled *Propolis: a Review*, obtainable from IMRA, Hill House, Gerrard's Cross, at 60p post free, surveying with the aid of 76 literature references the present state of our knowledge of this enigmatic substance.

Now comes an updated paperback re-print of F.N. Howes' 1945 book *Plants and Bee-keeping* (Faber £3.95) which, in its 240 pages describes the whole subject of nectar, pollen, honey, and bee activity, details the characteristics of all the major bee plants, and also the bee-potential of some 360 other plants. Though published over 30 years ago, the information -- updated in certain particulars -- is as valid now as then.

BLOWFLIES ON STRAWBERRIES.

An interesting practical application of pollination studies is in progress at Efford Horticultural Experimental Station near Lymington in Hants. To obtain strawberries for the earliest market it is necessary to grow them under protection, and polythene tunnels are used. The problem is pollination. There are few enough insects about so early, so experiments with colonies of bees in the tunnels as well as hand and mechanical means are being tried. Bees, it seems do not find strawberry flowers particularly attractive, but blowfly maggots as used by fishermen, soon hatch out as adults in the warm interior of the tunnels and are found most effective. (Ed)

SOME COLLECTORS IN THE WELSH NATIONAL HERBARIUM (NMW)

The Welsh National Herbarium at the National Museum of Wales, Cardiff, contains more than 230,000 specimens contributed by an estimated 5000 to 6000 collectors. A card index of collectors is nearing completion after several years of work. It includes the names of many well known 19th - 20th century British Botanists. Some of them are not mentioned in Ray Desmond's invaluable Dictionary of British and Irish Botanists and Horticulturalists. In other cases, although the collector's name is included, the existence of his or her specimens at NMW is not stated. Obviously Desmond had to be selective, naming only the herbaria with major holdings from each collector, otherwise his already massive tome would have become quite unwieldy. However there are some collections at Cardiff which may be worth mentioning as a supplement to Desmond's work. The following small selection of names from our card index may serve as an introduction for anyone interested in plant collectors and collections at the National Museum of Wales.

British collectors not mentioned by Desmond include: **Rev. Henry Horrocks Slater** (1851-1934), an ornithologist and entomologist as well as a first-rate botanist who collected in at least thirty vice-counties as well as abroad (c. 400 specimens); **J.A. Webb** (fl. 1921-1960) of Swansea, who collected mainly in Wales. (c. 4315); **Norman Woodhead** (1903-1978), former Senior Lecturer in Botany and Dean of the Faculty of Science at the University College of North Wales, Bangor. Herb. (c. 18,000); **William Wheldon** (fl. 1850-1880), ? an uncle of J.A. Wheldon, Yorkshire and Cornwall (c. 135); **Chambré Corker Vigers, M.D.** (fl. 1903-1930), co-author (with Edgar Thurston) of *A Supplement to Flora of Cornwall*, collected in Cornwall, Devon, Kent. (c. 122); **Richard J. Dix** (fl. 1920s), collected in several English vice-counties (c. 112); **Francis Ballard** (1896-1976), Kew botanist who collected in at least twenty-seven vice-counties, including the Channel Islands of Guernsey and Sark. (c. 860).

As Desmond stated in his Preface, it was not possible to list all known locations (of collections) in his Dictionary. The following are a few examples of plants at NMW which were not included:

Charles Bailey (1838-1928) amassed a large herbarium which is at Manchester University. Plants at Belfast, Liverpool, Oxford (NMW c. 3000).

William Ingham (1854-1923). Bryophytes at Leeds. (NMW has more than 2000 of his plants, of various groups).

Rev. Hugh Davies (1739-1821), of Anglesey. Herb. at BM (NH). NMW has c. 170 plants attributed to him but there may be a slight doubt about some of them when the labels (Herb. J.E. Griffith) state "ex herb", without specifying that Davies was the collector.

Linnaeus Cumming (1843-1927). Plants at Rugby School (mostly destroyed) and Oxford. (NMW 74). A small number but they may be of interest in view of the fate of the specimens at Rugby.

William Curnow (c. 1809-1887), of Cornwall. Herb. of Hepaticae at Mansfield. (NMW c. 300). 137 of our specimens are mounted in a folio of hepatics ex E.M. Holmes, but Curnow also collected some flowering plants and ferns.

Dr. John Fraser (1854-1935). Herb. at Hull University, from whence most of the NMW specimens came. (NMW c. 500).

John Grimes (1859-1947). President of Cardiff Naturalists' Society, 1915-16. Desmond records that NMW has his collection of lantern slides but does not mention his plants. (NMW c. 340).

Job Edward Lousley (1907-1976). Herb. at Reading. Over the years Cardiff had shared the generosity he had shown to institutions as well as to private individuals. (NMW c. 1900).

Rev. William Hunt Painter (1835-1910). Herb. at University College, Aberystwyth. Plants at Kew, Oxford. (NMW c. 230).

Ernest David Marquand (1848-1918). Herb. at La Societe Guernesiaise Museum and with C.R.P. Andrews (1870-1951). (NMW c. 470).

Father Henry Peter Reader (1850-1929). Plants at BM (NH), Bristol University, Oxford, Stoke-on-Trent Museum. (NMW c. 260).

Rev. Philip Grafton Mole Rhodes (1885-1934). Lichens and hepatics at Birmingham Museum, fungi at Kew, mosses at BM (NH). NMW has c. 1550 plants donated or bequeathed by Rhodes, but many were collected by others.

Rev. Henry Joseph Riddelsdell (1866-1941). Herb. at BM (NH). Desmond mentions that MS Fl. Glamorgan is at NMW but we also have c. 690 specimens.

Frances Rilstone (1881-1953). Plants at BM (NH), Oxford. (NMW c. 420).

Ernest Stanley Salmon (1872-1959). A mycologist (President of the British Mycological Society in 1901) and hop breeder, yet most of his 355 specimens at NMW are mosses, collected 1891-1901.

S.G. HARRISON, Keeper, National Museum of Wales, CARDIFF CF1 3NP.

British Plants Grown for Medical Research in Cambridge

The Cambridge University Botanic Garden is supplying under contract to the Pharmaceuticals Division of Imperial Chemical Industries samples of the British flora to be screened for their potential pharmaceutical value. This scheme, which began in 1977, is being run by the new British Conservation Section in the Garden, an arrangement which enables the Conservation Propagator, Mr Duncan Donald, to use where appropriate stocks of East Anglian origin grown for the British rare plants scheme run under contract to the Nature Conservancy Council (see *B.S.B.I. News* 17 p.5 (1977) and earlier references). Originally for two years, the I.C.I. contract has now been renewed for a third year, and the requirement of plant material extended to cover non-British genera. The Section can now employ, at least for the period of the contract, two other gardeners to work with Mr. Donald, and all documented holdings of British plants in the Garden outside the Research Area are now the responsibility of this Section. In June 1979 a new Conservation Display Bed, using British material of known wild origin, was officially opened to the public, and a booklet to accompany the display is being prepared for the 1980 season.

S.M. WALTERS, Director, University Botanic Garden, CAMBRIDGE CB2 1JF.

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Contributions intended for publication in this issue
must reach the Editor

BEFORE 29th OCTOBER 1979

THE BRITISH FLORA IN NEW ZEALAND

Mid-winter in Auckland is not a dull season by a Londoner's standards ; most foliage remains green and many garden shrubs retain their blossoms. *Chrysanthemum leucanthemum* is still brightly flowering on the roadsides, which will soon be more colourful with *Centaureum erythraea*, *Erodium moschatum*, *E. cicutarium*, *Lythrum hyssopifolia* and *Modiola caroliniana*. The three medics, *Medicago arabica*, *M. lupulina* and *M. polymorpha* are sure to be met with whichever direction I take. Waste places will be gay with *Geranium molle*, *Linaria purpurea*, *Parentucellia viscosa* and *Vicia sativa*, patches of white being added by populations of *Solanum nigrum* and *Anthemis cotula*. Among the grasses *Anthoxanthum odoratum* will be frequent and locally dense colonies of *Cynodon dactylon*, *Echinochloa crus-galli* and *Digitaria sanguinalis* will be encountered. Tall plants of *Conium maculatum* and stately *Verbena bonariensis* grace banks and streamsides later in the year; swamps and damp habitats abound with rushes, both native and adventive, including such old friends as *Juncus articulatus*, *J. bufonius* and *J. effusus*. *Juncus tenuis*, on the other hand, is occasionally to be found on grassy verges in more open country. Last year *Orobanche minor* was rife in flower-beds outside the local library and I have seen it elsewhere on many different hosts. A number of amaranths are recorded, *Amaranthus deflexus* being a common one of kerbsides, which it often shares with *Portulaca oleracea*.

A favourite excursion of mine since moving to the small coastal township of Milford takes me through a car-park bordered by weeds among which *Galinsoga parviflora* flourishes and where *Sagina procumbens* and *Coronopus didymus* are trodden underfoot if not driven over, it seems, with impunity. A dirt road leads me alongside a mangrove swamp (yet to be explored) where I have at least discovered *Atriplex hastata* and collected *Senecio mikanioides* actually scrambling over the mangroves. Almost at the beach I have observed *Reseda alba*, very infrequent, and *Tropaeolum majus*, very ubiquitous. A detour on the way back reveals *Diplotaxis muralis*, *Sporobolus africanus* and *Setaria glauca* on the road verges.

Winter weather is not always kind, of course; sometimes it favours indoor activities. *Stachys annua*, figured and discussed by *B.S.B.I. News* No. 12, offered a likely subject for some sheltered research on my part. In a paper, published in 1904, on the plants of Ashburton (Canterbury), W.W. Smith says that in 1900 his son collected a few flowering plants of this *Stachys*, which were submitted to some eminent botanists for comment. These experts "referred to its naturalisation on the Canterbury Plains as an interesting fact in the artificial distribution of plants". G.M. Thomson, who in 1922 wrote a book on the naturalisation of animals and plants in New Zealand, states that it was first collected by Smith in 1903, ignoring the earlier gathering by Smith junior. He adds "not collected since", a remark which seems to apply to this day for I cannot find any further records. H.H. Allan in his 1940 Handbook does not go beyond Smith's record and A.J. Healy in his 1969 account of Canterbury adventives includes *Stachys annua* on the strength of the same one, adding that the means of introduction were unknown. A solitary specimen gathered by Smith from Ashburton is in the Auckland Herbarium awaiting a companion. I would be happy to hear of a New Zealand gardener making a similar discovery to that of Mr. Styles in North Oxford.

E.B. BANGERTER, Flat 4, 110 East Coast Road, Milford, AUCKLAND 9, New Zealand.

BOOK NOTES

In the January part of *Watsonia*, Vol. 13(1), it is hoped that reviews of the following books will be included:

Climate and Evolution, by R. Pearson.

Identification of Flowering Plant Families, 2nd edition, by P.H. Davis and J. Cullen.

Flowering Trees in Subtropical Gardens, by G. Künkel.

Advances in Botanical Research, Vol. 6, edited by H.W. Woolhouse.

Euphorbes prostrées de France, by P. Huguet.

Flore de France, Fasc.3, by M. Guinochet and R. de Vilmorin.

Palms of Malaya, by T.C. Whitmore.

Welsh Ferns, Clubmosses, Quillworts & Horsetails, 6th edition, by H.A. Hyde, A.E. Wade and S.G. Harrison.

Le cas Lamarck, by J.P. Faure.

Trees and Shrubs of the Mediterranean, by H. Vedel, edited and adapted by H. Synge.

In addition the following books have been received recently. Those that will NOT be reviewed in *Watsonia* are marked by an asterisk.

Atlas de la flore belge et luxembourgeoise, Pteridophytes et Spermatophytes, Commentaires, by E. van Rompaey and L. Delvosalle.

The Experimental Biology of Ferns, edited by A.F. Dyer.

A Selective Dictionary of Trees, Plants and Flowers, English-French/French-English, by J.-P. Michaux.

Plant Breeding and Genetics in Horticulture, by C. North.

**Plant Physiology*, 2nd edition, by R.G.D. Bidwell. Pp. xx + 726, with frontispiece and numerous text-figures. Collier Macmillan Publishers. London, 1979. Price £14.25. The enthusiastic reception of this undergraduate text-book, which appeared in 1974, has led to the production of a revised edition. There is no indication of how the second edition differs from the first, which made a feature of (i) carbon nutrition in all its aspects, (ii) the developing plant, (iii) special organisms (e.g. marine organisms, symbiosis) and (iv) plant distribution and communities (including plants and man).

Finally, it is good to learn of the reprinting of *Hedges and Local History*, which contains the results of the one-day conference held jointly by the B.S.B.I. and the Standing Conference for Local History in 1971. In it you will find a discussion of the relationship between the age of hedges and hedgebanks and their botanical composition and the implications that this has for dating. Price £1.10 inc. postage, it is available from Bedford Square Press, National Council of Social Services, 26 Bedford Square, London WC1B 3HU.

NORMAN K.B. ROBSON,

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PLANTS ON SARK. C.I.

"*A Check List of Flowering Plants and Ferns, wild on Sark and its off-islets*" by D. McClintock & F. le Sueur (1963), revised by D. McClintock and M.H. Marsden, has been re-issued by permission of La Societe Guernesiaise, and may be obtained from:

Mrs M.H. Marsden, Le Jardin du Milien, SARK C.I. price 50p post paid.

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