

## SPECIES OF *PHALARIS*



# ADMINISTRATION

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**68 Outwoods Road, LOUGHBOROUGH, Leics LE11 3LY.**

(Please quote membership number on correspondence concerning membership or subscriptions – your membership number is on the address label of your mailings).

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**8 Ripley Road, Sawmills, Ambergate, DERBY DE5 2JQ.**

## SECRETARIES OF PERMANENT WORKING COMMITTEES:

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**PUBLICATIONS:** Mr Arthur O. Chater, Dept of Botany,  
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**MEETINGS:** Mrs Joanna Robertson,  
70 Castlegate, GRANTHAM, Lincs NG31 6SH.

**RECORDS:** Mr David J. McCosh,  
13 Cottesmore Gardens, LONDON W8 5PR.

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### Records Sub-Committee, New Mapping Scheme:

Mr R.G. Ellis *Hon Sec*, Mr D.J. McCosh, Mr A.O. Chater, Dr F.H. Perring, Mr C.D. Preston, Mr D.A. Wells.

### Conservation Sub-Committee, Case for Conservation Officer:

Miss L. Farrell *Hon Sec*, Mr O.T. Cairns, Mr J.M. Montgomery, Dr P.M. Wade.

## AMENDMENTS TO LISTS OF COUNTY

**RECORDERS** see page 5

# HON. GEN. SEC'S NOTES

**Congratulations** to Chris Brickell (formerly Director of RHS Gardens, Wisley) on his recent new appointment as The Director General, Royal Horticultural Society.

## **Forthcoming British Floras**

With regret we understand that the proposed new 'Flora of Great Britain and Ireland' will not now be produced. Cambridge University Press have informed that *Flora of the British Isles*, Clapham Tutin and Warburg, *third edition* is due for publication early in 1986. Meanwhile CUP currently lists in *New Books January-July 1985* a paper-back edition of C.T.W ed 2 for the first time.

Interest in **Churchyards** continues and the University of Sussex Centre for Continuing Education has published the *Poynings Churchyard Study* by the mid-Sussex Naturalists Group. This booklet reports on the two-year study of a West Sussex village churchyard by the Centre's natural history class held at Haywards Heath under the guidance of the class tutor Dr Ursula Smith. Contents include a list of the flora of the churchyard grass, both were cut and left uncut; plants on the Church walls and the Church roof; also a list of lichens and notes on the trees. As well as plant notes there is a 1780 illustration,, modern plans, and sections on mammals, birds and invertebrates, with a final comment that the churchyard was seen to be "a hive of activity". This commendable report is available for £1.45 (incl. p. & p.) from:  
Centre for Continuing Education, Education Development Building, University of Sussex, Falmer, BRIGHTON, Sussex BN1 9RG.

## **Foreign Field Guides**

For swifter processing of the large number of enquiries on "which field guide for a holiday in . . . . .?" a list (mainly for Europe) is being prepared. If any members have well-tryed and preferably unusual Floras/field guides/wild flower books which they would like to recommend I will be pleased to add these to the list. Please send recommendations to the Hon. Gen. Sec., address page 2. To some extent the choice will be personal and subjective; some members I know will not travel to Europe without sagging under the weight of *Flora Europaea*. Before Vol. 5 was published I met four BSBI members in Crete, each carrying one Vol. of F.E.; they were also sharing a hired car, so were well organised for transport and identification on the island. Some members spend the winter previous to their visit abstracting from F.E. those plants which occur in that country/island or area, with selected keys – giving the ideal holiday flora; Bernard Powner with real dedication set his alarm one hour earlier each day to make the time for this project. But for those who leave F.E. at home for study on return there *are* smaller alternatives, although often tantalisingly uncomprehensive, and there are many popular holiday areas for which there is still no specific local field guide – in English. The recently published *A Guide to the Standard Floras of the World* by D.G. Frodin (£95.00), see Book Notes page 28, will be very useful for the large Floras and papers; we plan a supplementary list of field guides for intending botanical travellers.

## **Destructive Pioneers**

We are indebted to Professor J.L. Reveal, University of Maryland, for a reminder of our past influence on the vegetation of distant lands as, reading a paper on the Welsh naturalist Rev. Hugh Jones, Calvert County, Maryland 1690 at the B.M. in 1984, he drew attention to the following appraisal of the destruction of a natural resource from the U.S.A.: Jones, writing to his Principal at Oxford in 1697 or 8, says "All the low land is verry woody like one continued Forrest, no part clear but what is cleared by the english. Indeed in a few years we may expect it otherwise, for the tobacco trade destroyes abundance of timber, both for makeing of hogsheads and building of tobacco houses, besides cleareing of ground yearly for planting.

## **BSBI families**

A special greeting to the BSBI families who help with meetings and whose teamwork contributes considerably to the smooth running of the Annual Exhibition and other meetings. Through the years the Mullins with Fiona, the Lees with Gwyn and Tom and the Perrings with Emma have all helped with the organisation of either the exhibits, the refreshments or the book sales. In 1984 a new arrival was Marion daughter of Joanna (Hon. Meetings Secretary) and James Robertson (NCC), both BSBI members. Also at the Plants and Archaeology Conference in Oxford the Huntley twins put in a brief appearance as the youngest participants at 3 months old – they too have BSBI parents, Brian and Jacque Huntley, now at Durham.

Those who signed the Get Well card for Ted Wallace at the Exhibition Meeting will be pleased to hear that Ted is now out of hospital, that he recently attended a meeting of the Records Committee of which he is a member, and at the time of writing this he is packing for a botanical holiday on Gozo. He sends thanks for all the good wishes.

## **Tailpiece – a lament**

Seeing the neat stacks of old Radio Times enfolding specimens in Peter Macpherson's Glasgow home brought a nostalgic pang for the old R.T. format with absorbent paper. For *years* Radio Times accompanied my journeys, its page exactly fitting the travelling press which was originally Ted Lousley's and kindly presented to me by Dorothy; it was admirable as drying paper for holiday specimens – until 1984 when new technology brought colour and shiny paper to R.T. – now useless for plants.

**Mary Briggs**

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**CONTRIBUTIONS INTENDED FOR**

*BSBI NEWS 40*

**should reach the Editor before**

**20th JULY 1985**

## BSBI COUNTY RECORDERS

Supplement 5 to March 1982 List

\* New Recorder † Change of Address

- 9 DORSET & 22 BERKS † Dr H.J.M. Bowen, 8 Glebe Road, Christchurch, READING, Berkshire RG2 7AG.
- 27 E. NORFOLK \* Mr A.L. Bull, Hillcrest, East Tuddenham, DEREHAM, Norfolk NR20 3JJ.
- 42 BRECS † Mr M. Porter, Aberhoywy Farm, Cyffredyn Lane, Llangynidr, CRICKHOWELL, Powys.
- 56 NOTTS \* Mrs K.L. Jefferies, 70 Castlegate, GRANTHAM, Lincs NG31 65H.  
\* Mr G. Walley, B.R.C., Wollaton Hall, NOTTINGHAM.
- 58 CHESHIRE † Mr A.L. Newton M.A., 10 The Fairways, LEAMINGTON SPA, Warwickshire CV32 6PR.
- 70 CUMBERLAND † Dr D.A. Ratcliffe, Northminster House, PETERBOROUGH PE1 1UA.
- H 18 OFFALY † Dr J.G.D. Lamb, Woodfield, CLARA, Co. Offaly, Ireland.

MARY BRIGGS Hon. Gen. Sec.

DAVID J. McCOSH Hon. Sec. Records Committee

### NEXT VC RECORDERS' CONFERENCE

As the final programme for the Conference *Recording Critical Groups in the flora of the British Isles*, Liverpool September 12th and 13th 1985 (programme circulated with this mailing) includes so many papers relevant to Recorders, it has been decided that it would be inappropriate to add further papers on recording as a separate programme for Recorders.

We hope that many Recorders will be able to join the Conference to hear these Papers and to participate in the Workshops. Additionally there will now be a Recorders' Forum on the evening of Friday 13th, with ample time for discussion of current problems and projects. On Saturday 14th September there will be a field excursion to the University Botanic Gardens at Ness which will include a visit to the National Willow Collection there. (see Programme).

As before, all BSBI members with special interest in recording and Local Floras are welcome to join the Recorders' session, but following this amendment to the advance plan it is not now necessary to send bookings for this to Derek Wells, NCC Peterborough.

ALL BOOKINGS for the 1985 Conference weekend, September 12th-14th, with additional overnight accommodation if required on Wed. 11th and Sat. 14th and including the Saturday Excursion, will now be handled by Eric Greenwood.

Please send your booking to: Mr E.F. Greenwood, BSBI c/o Merseyside County Museums, William Brown Street, LIVERPOOL L3 8EN., on Conference Booking Form.

MARY BRIGGS

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## ALIENS and ADVENTIVES

ADVENTIVE NEWS 30

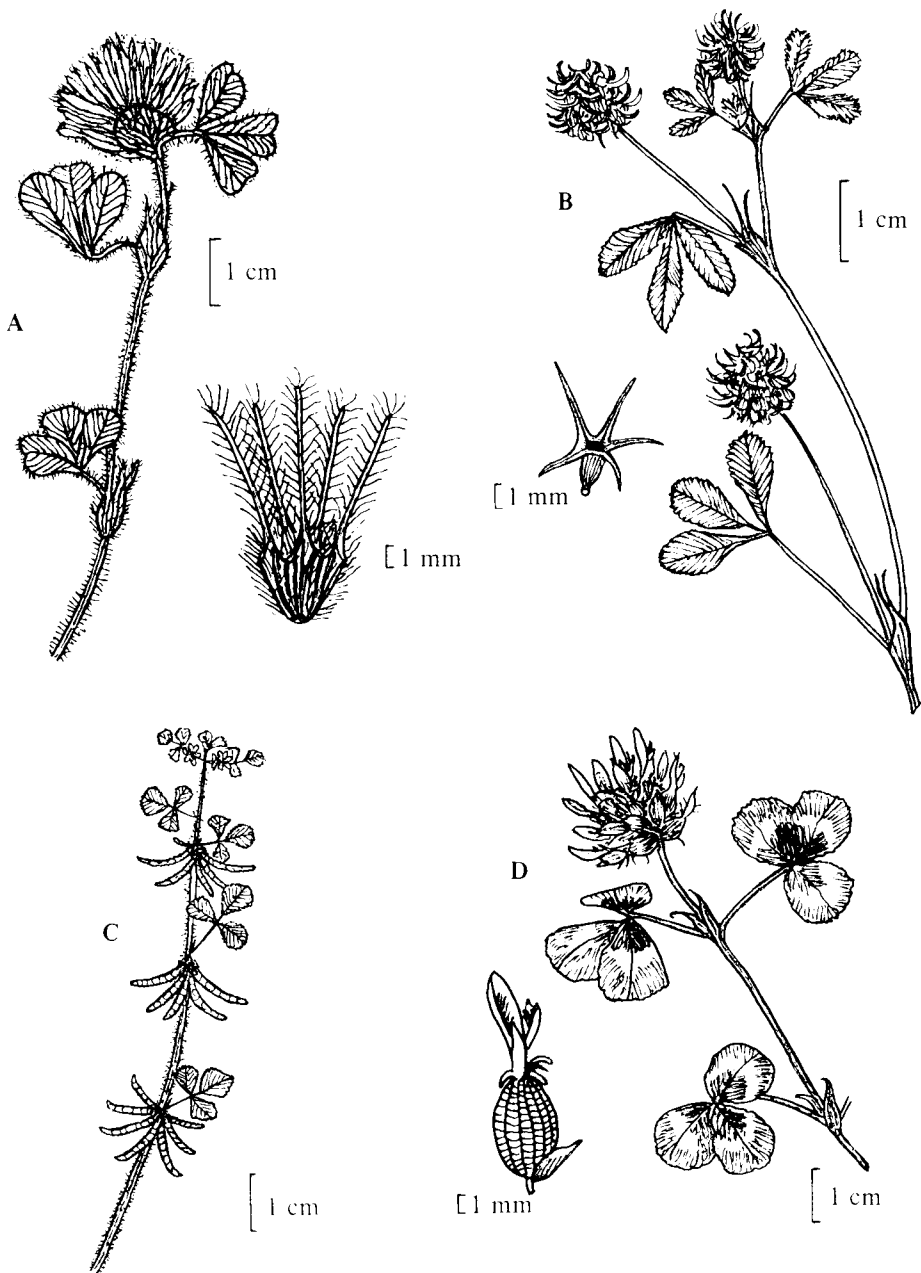
compiled by Adrian L. Grenfell

### MORE ON TAN BARK ALIENS

Favourable weather conditions in 1984 led to a substantial germination of tan bark aliens at Grampound, Cornwall; at least 30 taxa new to the cumulative list in *Adventive News* 26 being recorded. Visits to the site were made by the writer, A.J. Byfield, Mrs B.E.M. Garratt, K.L. Spurgin, Mrs O.M. Stewart Miss B.M. Sturdy and others: their valuable help is gratefully acknowledged. Eventually I hope to prepare a fuller account for publication elsewhere and so only refer to a few of the more notable newcomers here.

Most unexpected of these was *Trifolium gmelium* Pourr. ex Willd. (det. E.J.C. who drew attention to its similarity to N. African populations) whose limited distribution (S.W. Europe & N.W. Africa) suggests that the Valonia Oak cupules are not imported exclusively from Turkey as was previously thought. *T. nigrescens* Viv., closely related to *T. hybridum* but annual and not rooting at the nodes and the similar *T. hybridum* ssp. *anatolicum* (Boiss.) Hossain were abundant, as were *T. hirtum* All., *T. lappaceum* L., *T. retusum* L. and *T. spumosum* L., its large flower heads with bracts and corollas persistent in fruit conspicuous. Two British natives were present:- *T. subterraneum* L. and much *T. suffocatum* L. A solitary seedling appears to be a close match for the Lizard Peninsula rarity *T. strictum* L. Single plants of *Vicia narbonensis* L., *V. hybrida* L. and *Astragalus hamosus* L. were noted with fruiting specimens of *Trigonella monspeliaca* L., its groups of rigid pods arranged in a star-like configuration.

L.G. Margetts, formerly recorder for v.c. 1 now domiciled in Honiton, Devon, kindly visited a tannery at nearby Colyton at my request but found nothing of note. There must be other tanneries using Valonia Oak - volunteers please to locate and explore them in 1985. This could be a rewarding task!



TAN BARK ALIENS del. A.L. Grenfell © 1985

A *Trifolium hirtum* All.

B *Trifolium retusum* L.

C *Trigonella monspeliaca* L.

D *Trifolium spumosum* L.

## MORE ON *PHALARIS PARADOXA* AND RELATED SPECIES

(see front cover)

During the past six months I have received over 50 records of *Phalaris paradoxa* L., mostly in winter cereal crops, of which over 40 relate to specimens sent to Reading University by the Weed Research Organisation (comm. Dr S.L. Jury). All concern occurrences in the southern half of England with nearly 50% from Essex and 85% from the eastern counties: the continuing spread of this latest agricultural pest is thus amply confirmed.

Records from our own members include:-

Holbeach, Lincs., Sept 1983. Mrs Irene Weston. Conf. P.J.O. Trist. New to v.c. 53. Large colony over about 100 yds of border of onion/gladioli field and down bank of adjoining dyke.

Cranborne, Dorset, 1984. Dr H.J.M. Bowen. **RNG**. In fallow field.

N. Wilts – E.J. Clement asks me to publish a letter to him from D. Green (v.c. 7 recorder) in full: – “With reference to your comments on *Phalaris paradoxa* L. and its potential as a persistent weed within cornfields, a Mr Roberts, a farmer at Lidbrook (part of Box parish, nr. Bath but in Wilts.), showed me a specimen that had been identified by the Horticultural Dept. at Bath University, which concurred from herb. material I have. The colony (seen after harvesting) was large in every sense of the word, in numbers 1000 plants + and in size 30 ins. in height and much branched. The panicles were fully ripe and falling, showing how easily it will spread if harvested with the main crop. A second site occurred within 1½ miles of the above, making 4 in v.c. 7 to date”

A Gloucestershire record from an Andoversford spring barley field, comm. Mrs S.C. Holland, was based on a mis-determination at ADAS: re-examination of the specimen showed that the taxon concerned was *P. minor* Retz., conf. E.J.C., a surprising and very rare introduction in arable. Here the plants had been killed by application of Paraquat. It is not known if *P. minor* shows similar resistance to spraying as *P. paradoxa*. *P. paradoxa*, *P. minor* and *P. brachystachys* Link were all formerly recorded as wool aliens, the former mainly as its var. *praemorsa* Coss & Dur. In 1979 *P. minor* was abundant on mill sweepings at Avonmouth Docks, Bristol: the following year a single plant was nearby on a railway track (A.L.G.).

The very much rarer S. American annual *P. angusta* Nees, characterised by its long, narrow (5 mm) panicle and narrow spikelets, was located by the writer on the site of a defunct animal feed factory near the centre of Bristol in Oct 1984 where it was accompanied by a wealth of interesting aliens including *Setaria faberi*, *Salvia reflexa* and *Anthriscus caucalis*.

Two further records of perennial *P. aquatica* L. came my way in 1984:-

Oxmoor Wood, Church Crookham, Hants., Nov 1984. C.R. Hall & A.R.G. Mundell. Hb. ARGM. “17 clumps, 5-6 ft. tall, in a clearing dominated by *Juncus effusus* near a small pond. Surrounding wood managed for pheasants”.

Elmore Park Wood, Woodcote, Oxon, 1984. Dr H.J.M. Bowen. **RNG**. Relic of cultivation.



## CULTIVATED LUPINS

Annual lupin seed is currently being imported for crop evaluation trials as soya bean substitutes. To date I have not received any records in response to my request in *Adventive News* 28 (incorrectly indexed as 27 in *B.S.B.I. News* 37!) but my own field work revealed several plants of *Lupinus albus* L. ssp. *albus* in Gloucester Docks and *L. angustifolius* L. in quantity in Avonmouth Docks, Bristol where it was spilt from conveyor belts and spread over a wide area. Records please . . .

## MIXED BAG

*Allium nigrum* L. (*A. speciosum* Cyr.): Royal Aircraft Establishment (RAE), Farnborough, Hants., 1983. A.R.G., Mundell. Hb. ARGM. Colony in long grass on the airfield. A.R.G.M. speculates that the introduction may have been due to discarded dried seed-heads used in flower arrangements during an air show. Speculative indeed but how else?

*Althaea hirsuta* L.: Folkington, E. Sussex, June 1984. D. Vinall, comm. Mrs B.E. Burt. Conf. E.J.C. Several plants on very dry bare ground. Its 6 epicalyx segments should immediately separate it from *Malva cretica* with which it is often confused. Very rare British (?) native not infrequent as an introduction.

*Berberis thunbergii* DC.: Hextable, W. Kent, April 1983. J.R. Palmer who writes . . . "seedlings frequent on semi-country roadsides. Reason not clear".

*Coreopsis verticillata* L.: Church Crookham, Hants., Aug 1984. C.R. Hall, comm. A.R.G. Mundell. Hb. ARGM, conf. A.L.G. Well-established and apparently vegetating, with *Alchemilla mollis* (Buser) Rothm. (Hb. ARGM), near track on acid heathland but far from habitation. *C. verticillata*, with showy fls. and neat linear-filiform leaf segments, looks garden-worthy but is apparently seldom cultivated in Br. A native of C. & S. U.S.A. new to Britain.

*Cymbalaria hepaticifolia* (Poirot) Wettst.: Garden, Kingswood, Bristol, 1978 onwards. C. Hayes, det. A.L.G., conf. E.J.C. Small white-flowered perennial with vigorous white stolons which fragment easily causing it to quickly overrun a rockery: Corsican endemic with surprisingly few British records. Accidental introduction with nursery plants.

*Digitalis lutea* L.: Naturalised on ruined wall-tops, Leeds Castle, nr. Maidstone, Kent. D. Niede. First noted in 1980; population 12 plants in 1984, apparently static but persisting. Also on road verge, Codford St. Mary, Wilts., 1979. Comm. the late Mrs J.E. Swanborough. Still there in 1984, A.L.G.

*Hypericum polyphyllum* hort., non Boiss. & Bal. (*H. olympicum*): Croft Road, Evesham, Worcs. Leg., det. & Hb. O.F. Whitehead. Flowering in paving stone crack as late as 3rd. Oct 1984.

*Kerria japonica* (L.) DC.: Roadside bank, Longfield Hill, W. Kent, 6th. May 1983. J.R. Palmer - "status much better than this plant normally has".

*Lathraea clandestina* L.: Broadstone, Dorset, 1983. Mrs E.M. Parish. Small patch at base of *Ulex* hedge on roadside; associated tree species *Pinus*, *Betula* and *Ilex*. No *Salix*, *Alnus* or *Populus* present. *Corylus*, an occasional host, was c. 40 m away.

*Linaria maroccana* Hoo! f.: Norris Hill, nr. Fleet, Hants., Aug 1984. T. Dove, comm. A.R.G. Mundell. Det. A.L.G., Hb. ARGM. Many plants, flowers ranging in colour from pale yellow through pink and magenta to purple, on disturbed soil. Submitted as *L. bipartita* from which it differs chiefly in its long straight spur, 1½ times as long as the corolla (slightly shorter than corolla and curved in *L. bipartita*), it is an annual well-known in gardens and occasionally outcast. (Morocco).

*Nectaroscordum siculum* (Ucria) Lindley ssp. *bulgaricum* (Janka) Stearn: Beaminster, Dorset, in hedgerow above railway tunnel, May 1984. J.G. Keylock, det. J.G.K. *Phacelia tanacetifolia* Benth.: Corn and pea field below Pilsdon Pen, Dorset, June 1984. J.G. Keylock, det. J.G.K. On dumped soil, Wadebridge, Cornwall, Aug 1984. D. Green, det. A.L.G. Garden, Ditchling, E. Sussex, 1984. Mrs E.M. Payne, comm. R.M. Payne, det. E.J.C. To my note in *Adventive News* 28 should be added "with pinnate leaves, unlike Boraginaceae".

*Physalis ixocarpa* Brot. ex Hornem.: Himley, Staffs. in a field previously treated with wool shoddy, 1984. C.B. Westall. det. A.L.G.

*Ruta graveolens* L.: Little Comberton, Pershore, Worcs., 1983. Self-sown seedlings, gravel path in garden.

I should like to take this opportunity of thanking the many artists who produce the drawings which illustrate these articles. Newcomers to the panel are always welcome, especially those able and willing to draw from herbarium material.

Once again thank you for your many records. Please remember to send copies to the v.c. recorders concerned – this is often forgotten! 5 x 3" record slips, which greatly help in filing, are available from me (SAE please). Specimens are best despatched dried, with colour notes; if you send fresh material please do **not** seal in plastic bags – several packets received in 1984 smelt strongly of silage and were hardly identifiable! Good hunting in 1985!

ADRIAN L. GRENFELL, 19 Station Road, Winterbourne Down, BRISTOL BS17 1EP.

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### *PASPALUM PASPALOIDES* (Michaux) Scribner IN EAST LONDON

The discovery of a well-established colony of this tropical grass in the East End of London last autumn attracted a certain amount of media attention, both local and national: the resulting reports were somewhat variable in their factual and botanical accuracy.

*Paspalum paspaloides* had previously been recorded in the British Isles mainly as a wool alien, although it has been well-established at Mousehole, West Cornwall for several years. Its country of origin is uncertain, but it has spread from the Tropics into southern Europe, where it is widely naturalised in low-lying places near the sea. Rodney Burton tells me that he has seen it, for example, in Les Landes, south-west France and in the Ionian Islands in Greece. The specimen from which the illustration was produced was collected in Corfu.

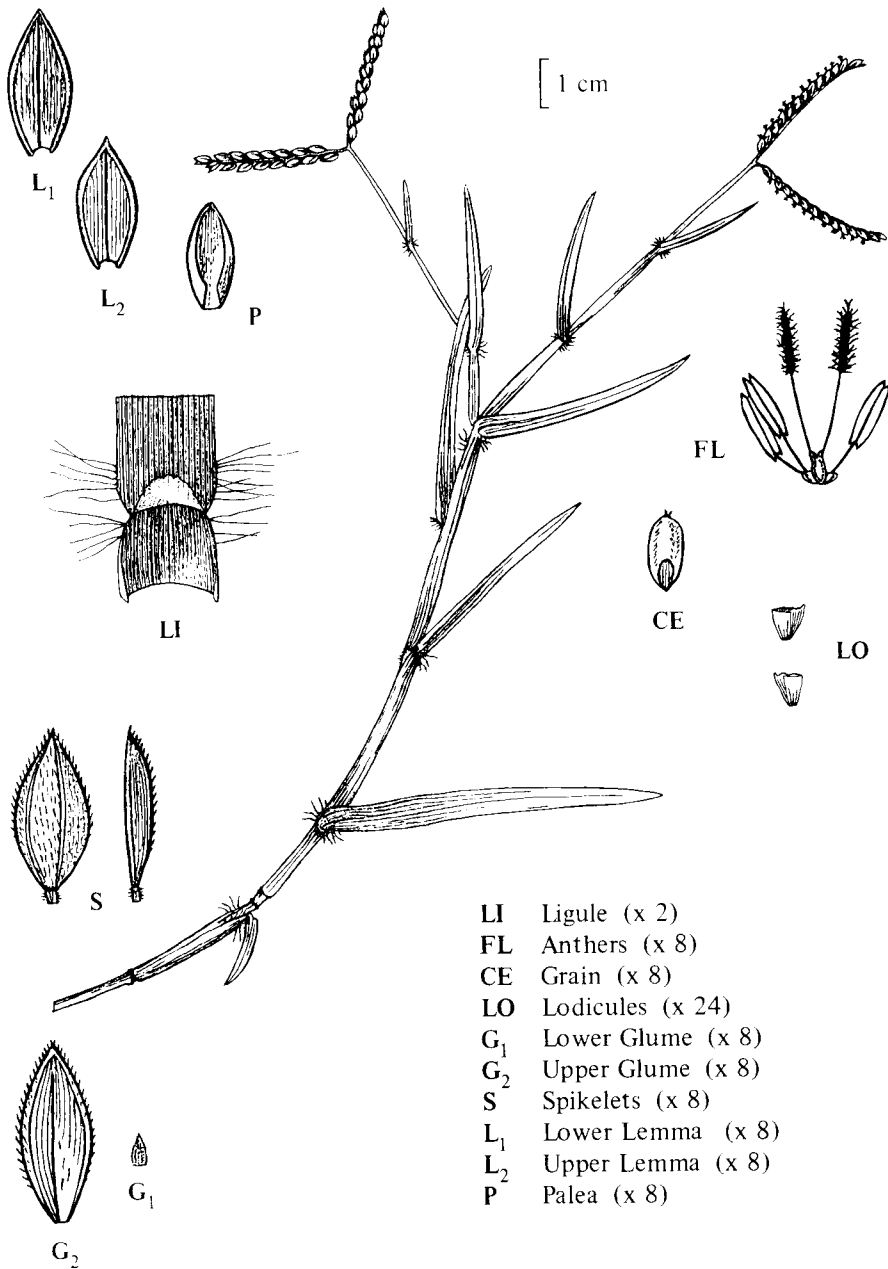
I found the plant in October 1984 at the entrance to the Kingsland Basin, which lies on the Regent's Canal. It was growing on an area of submerged brickwork – the roots of each plant were under water whilst much of each shoot was above the surface of the canal. The colony covered about 10 square metres and other species present included *Epilobium hirsutum*, *Angelica archangelica*, *Lycopus europaeus*, *Scutellaria galericulata*, *Bidens connata* and *Sparganium erectum*.

How the grass got there is of course a mystery. It is one member of East London's impressive collection of canal-side aliens, which also includes *Chenopodium ambrosioides* and *Conyza sumatrensis*. These aliens may have arrived in the days of ocean trading, or they may have become established in the rather special conditions by the canal from origins in discarded birdseed or other refuse.

*Paspalum paspaloides* is one of a number of interesting botanical discoveries made during the course of the London Wildlife's Habitat Survey of London, which was carried out during 1984-5 by the London Wildlife Trust under contract to G.L.C.

*Paspalum* is fairly closely related to *Digitaria* but differs in the biseriate spikelets on each arm of the inflorescence and in technical details of the fertile floret. There are numerous species. *Paspalum paspaloides* is a creeping stoloniferous perennial with ciliate sheaths, paired racemes and spikelets c. 3mm, ovate, flat in front and convex behind, the upper glume appressed – puberulent under the lens and with a definite mid vein.

A.D.R. HARE, 154 Southgate Road, LONDON N1.



- LI Ligule (x 2)
- FL Anthers (x 8)
- CE Grain (x 8)
- LO Lodicules (x 24)
- G<sub>1</sub> Lower Glume (x 8)
- G<sub>2</sub> Upper Glume (x 8)
- S Spikelets (x 8)
- L<sub>1</sub> Lower Lemma (x 8)
- L<sub>2</sub> Upper Lemma (x 8)
- P Palea (x 8)

*Paspalum paspaloides* (Michx.) Scribn. del. A.L. Grenfell © 1985

# NOTICES

(BSBI (official) Notices)

## NAME THIS BOOK

David Allen has written a history of the B.S.B.I. to be published for the sesquicentenary of the Society in 1986. It is a vivid and highly readable account of the colourful personalities and activities, from the early day of the Botanical Society of London through Watson and Druce to the present day. What is now needed is a distinctive main title (it will be subtitled "A History of the Botanical Society of the British Isles through 150 years").

Suggestions so far include *The Flowering of the Field, Gentlemen and Players, Floreat Flora*, and *The Botanists*, but if you have a suggestion, please send it to: ARTHUR O. CHATER, Dept of Botany, British Museum (Nat. Hist.), Cromwell Road, LONDON SW7 5BD.

## BEE ORCHID SCHEME

Terry Wells and I would like to thank the many contributors to this scheme since 1979 for their scientific information, their interest and their patience. Everyone has made observations that have been useful. Many people, however, have submitted records in slightly different ways, and for this reason, it has been difficult to bring together the results and to give a national picture. We do, though, intend to write a short paper for *Watsonia* in the future, where full acknowledgements will be made. This does not prevent anyone else writing up their own observations and we should be happy if people wish to do so.

May I take this opportunity of informing everyone that the National Bee Orchid Recording Scheme is now officially closed. Of course, this does not mean that we cannot be contacted in the future; indeed, we would be pleased to hear from recorders or any botanists who have an interest in this species.

Thank you all once again.

LYNNE FARRELL, NCC, Northminster House, PETERBOROUGH PE1 1UA.  
TERRY WELLS, ITE, Monks Wood Exp't Station, Abbots Ripton, PETERBOROUGH PE17 2LS.

## NEW FIELD COURSES IN THE HIGHLANDS

After many years as Warden of Kindrogan Field Centre in Perthshire, Brian Brookes is offering a programme of courses of his own at various places in the Highlands, from Skye and Morvern to Perthshire, during the summer. These are mostly of general interest, though the botanical element will be well covered and they will appeal to beginners and specialists alike.

Brian can be contacted (s.a.e. please) at Highland Field Studies, Woodend, Enochdhu, Blairgowrie, Perthshire PH10 7PW. Telephone: Strathardle (025081) 375.

## **INTERNATIONAL BOTANICAL CONGRESS (EDINBURGH) FUND**

This Fund is derived from surpluses from the Tenth International Botanical Congress, Edinburgh, 1964, and the Third International Congress of Plant Tissue and Cell Culture, Leicester, 1974. It is used to assist young botanists (up to age 35) to attend international botanical and cell culture meetings being held either in the UK or abroad, and to participate in excursions or other visits relating to such meetings. Ph.D. students are not normally eligible and as funds available are limited, awards are likely to cover only a proportion of estimated expenditure.

The closing date for applications is 15 June 1985. Further information and application forms may be obtained from:

Miss B.M. de Vere, The Royal Society, 6 Carlton House Terrace, LONDON SW1Y 5AG.

## **THE BIOLOGICAL COUNCIL**

The Biological Council, which receives the support of the BSBI, has issued a new Handbook of UK biological Societies with an interesting account of the activities of the Council since its formation in 1945. Of its numerous publications covering a wide field of topics, perhaps 'Safety on Field Courses' may interest leaders of botanical excursions.

Some assistance is made available to student expeditions; two recent applications worthy of special mention were 'Ant-Ferns of New Guinea' and "Curacao 1984". Prizes are also awarded to the most outstanding candidates in the Biological Science 'A' level examinations of each examining board in the UK. Finally, the addresses of Societies affiliated to the Biological Council are listed with provisional dates of meetings in 1985 and 1986.

The Handbook, price £1.50, can be obtained from Mrs. Barbara Cavilla, c/o Institute of Biology, 20 Queensberry Place, London SW7 2DZ.

DR S. THORLEY, 19 Barn Meadow Lane, Great Bookham, LEATHERHEAD, Surrey KT23 3HJ.

BSBI Representative to The Biological Council.

## **UNIVERSITY OF LONDON DEPARTMENT OF EXTRA-MURAL STUDIES CERTIFICATE AND DIPLOMA IN FIELD BIOLOGY**

The regulations for the above have been revised with effect from October 1984. The course content remains substantially unchanged, but the scheme of study and assessment has been restructured to give students greater flexibility in arranging their studies.

The two year Certificate course is designed to enable the student to acquire the fundamental principles of ecology and the practical techniques necessary to carry out independent work in the field. Students are required to attend two residential summer schools and the next one will be held at Juniper Hall Field Centre in Surrey from 2-16 August 1985.

Further details and application forms may be obtained from Miss Hannah Boone, Department of Extra-Mural Studies, University of London, 26 Russell Square, London WC1B 5DQ.

# REQUESTS

## BORAGINACEAE WANTED

Dr Richard Williams of Hurst Crop Research & Development Unit (an organisation which has recently joined BSBI) is requesting seed of Boraginaceae for research into fatty acid content. The literature suggests that at least 18 of the Boraginaceae genera have potential for pharmaceutical use, and Dr Williams will be very grateful for seed samples from any species of this family. He writes: "Every seed source is acceptable and would be examined, whether from an individual with a single species in his back garden, or a collector with a large number of species. Area or country of origin at this stage is not important. All Boraginaceae seeds will be welcome and gratefully acknowledged".

Dr R.H. WILLIAMS, Novel Crops Agronomist, Gt Domsey Farm, Feering, COLCHESTER, Essex CO5 9ES.

## BOTANIST FOR ORKNEY

Elaine Bullard, BSBI Recorder for Orkney, would like an assistant – preferably one able to botanise on the island from time to time, but also with access to one of the larger British & Irish Herbaria for reference to Orkney specimens there. Any member interested in helping with recording on Orkney, please write:

MISS E.R. BULLARD, Toftwood, KIRKWALL, Orkney.

## LECTURERS AND SPEAKERS WANTED!

The Council for Environmental Conservation's Information Service is currently compiling a new publication entitled a 'Directory of Lecturers in Natural History, Conservation and Environmental Issues'. If you, or someone you know, gives lectures to groups and clubs and would like to be included in this publication, we should be glad to be informed.

Please give details of lecture topics, geographical area covered, provision of illustrations, fee required etc along with your name, address and telephone number.

Letters should be addressed to:

EDWINA MILESI at CoEnCo, Zoological Gardens, Regents Park, LONDON NW1 4RY.

## FIELD MEETING TO HUNGARY – 25th MAY to 8th JUNE

There are still a few places available on this meeting. In view of the limited time before the meeting will any members interested in participating please contact the leader, Mr P.J. HORTON, Ings Cottage, East Cottingwith, YORK YO4 4TW as soon as possible.

## FLORA OF THE BALEARIC ISLANDS

I am attempting to paint a complete Flora of these islands in the style of Keble Martin. Having now painted 800 Balearic spp. I would very much appreciate some help with those spp. which I have not yet seen there. I would be very grateful for photos, possibly with small pressed specimens, from anyone visiting Majorca or the other islands this year. They would be returned in good condition.

If you would like to help, please write to me, with particulars of your own floral interests; I can supply a list of those plants still required.

Dr ELSPETH BECKET, 78 St Clements, OXFORD OX4 1AW.

## CONSERVATION OF SEED

Botanists and conservationists concerned about the rare species in the British flora occasionally require living plant material – for research, for educational displays and teaching material, for planting in and around nature reserves, for botanical illustration or photography etc. Although many of these uses are important and relevant for conservation, may I remind members that it is *never* excusable for an individual to collect seed from wild populations of Red Data Book species independently, and that there is a way of obtaining genuine British material of rare plants without plundering the fragile wild populations.

Even though many species of rare plants may appear to be producing abundant viable seed annually, it does not follow that the populations are producing more than enough seed to regenerate themselves. Many species have seeds which age and die within a year or two; also losses of seed and seedlings due to predators and fungal attack may be astonishingly high. It is certain that well-meant but uncontrolled collecting of rare species has in the past directly contributed to their decline. To guard against this the policy of BSBI since 1978 has been that all seed collection from the rare plants listed in the Red Data Book should be organised centrally by Lynne Farrell, now at Nature Conservancy Council, Peterborough, and working through the County Recorders. This plan should ensure that only *one person* will collect seed from any one population of a rare plant. Of course, seed must not be collected from species scheduled under the Wildlife & Countryside Act 1981, without a license issued by the Nature Conservancy Council.

To provide conservationists and botanists with a means of obtaining seed of many rare species without putting pressure on the wild populations, is one of the functions of the Conservation Section of the Cambridge Botanic Garden. To remove this pressure, seed of known wild origin stocks of many species is conveniently available. Will anyone who needs seeds of rare plants or of species of local East Anglian interest please ask here first. A list of the species which may be available (subject to availability) can be obtained from the address below, also from the Kew seed bank at Wakehurst Place, Ardingly, Haywards Heath, Sussex RH17 6TN, for research institutes and colleges.

CONSERVATION PROPAGATOR, University Botanic Garden, 1 Brookside, CAMBRIDGE CB2 1JF.

## LADY'S SLIPPER VISITING

1984 was a relatively successful year for the native plant – it produced more shoots and received few visitors. Experiments to germinate seed are progressing slowly – the species is one of the more difficult to grow.

I would like to thank those who did not visit the site for their restraint. We hope that within the next few years we will have a site that can be visited, but meanwhile I ask for your indulgence in not visiting the native site in 1985.

I can assure you that your patience is appreciated and that the plant is flourishing and the site looking well.

LYNNE FARRELL, Nature Conservancy Council, PETERBOROUGH.

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## SUCCESSFUL PROSECUTION FOR UPROOTING WATER-SOLDIER

Two dealers in aquatic plants were fined £250 each and ordered to pay costs at North Walsham Magistrates' Court on 14 January 1985 for taking plants of *Stratiotes aloides* without permission from dykes on Ludham Marshes, a National Nature Reserve in Norfolk, last May. This is believed to be the first prosecution under section 13 of the Wildlife and Countryside Act 1981\*, which makes it an offence for anyone except an authorised person intentionally to uproot any wild plant unless he or she can show "that the act was an incidental result of a lawful operation and could not reasonably have been avoided". The maximum fine per plant has recently been raised from £500 to £1,000.

Water-soldier is local and has declined as a native plant but is *not* one of the 62 species listed in Schedule 8 of the Act which it is illegal to pick; so the case brought by the police depended on proving that the accused men actually *uprooted* plants. Their solicitor claimed that they only took offsets from the plants for vegetative propagation, but evidence was given of more than a hundred water-soldier plants found discarded on the banks of the dykes and of gaps left in the water where they have been removed.

Thanks to the combined efforts of the Nature Conservancy Council and a Great Yarmouth press agency, the case was reported on BBC Radio 4's *PM* and *BBC TV Look East* on 14 January, in *The Times*, *The Guardian* and *Daily Telegraph* next morning, in various local newspapers and in *Country Life*'s Wildlife Number of 14 February (with a photograph of water-soldier). We hope that the conviction will help to draw public attention to the law protecting wild plants and that BSBI members will assist in spreading the message. This prosecution was made only because a local resident reported the incident and the men's van number to the NCC and subsequently to the police.

Philip Oswald, Nature Conservancy Council

\* The conviction for uprooting primroses near Horsham in 1980 was made under the Conservation of Wild Creatures and Wild Plants Act 1975, which has been repealed by the 1981 Act (see *BSBI News*, No. 25, p. 5).



## THE VICTORIA PARK "AGRIMIX" – A NEW SOURCE OF BRITISH ALIENS?

Close to this Park, I found, in November, 1984, a neat 100-yard stretch of Regent's Canal towpath verge where the native perennial vegetation was totally replaced by an apparently deliberately planted mixture of mostly annual agricultural aliens, together with several arable weeds. There were no grasses, *Amaranthus* or *Helianthus* species present at all; therefore bird seed could not have been the source. The species present did not fit those of "wildflower" seed mixtures, the use of which (presumably to create "instant meadows") is becoming sadly more widespread. Nor was there any nearby basin or wharf where barges might have unloaded foreign goods. And the adjacent terrain merely consisted of a new, rather formal, ornamental shrubbery, planted by the London Borough of Tower Hamlets, on weed-free forest bark.

So where did this alien "agrimix" come from and why was it introduced just here? What can we deduce from the following constituent species?

*Co-dominant:* *Sinapis alba*. *Vicia* species (one or two species with no flower or fruit). *Trifolium repens* (very variable leaves and again no flower or fruit, so native specimens may be mixed with aliens).

*Plentiful:* *Centaurea cyanus*, *Papaver rhoeas* (unusual form with broad leaflets and pale salmon-rose to white flowers) *Papaver somniferum* ssp *setigerum*, *Fagopyrum esculentum*, *Linum usitatissimum*, *Sanguisorba minor* ssp *muricata*, *Onobrychis viciifolia*, *Ornithopus sativus*, and many robust Dandelions with leaves either like Cos Lettuce, or leaves deeply divided, purple-veined, and heavily maculate. Botanically more exciting, perhaps, were numerous specimens of four unknown annual *Lupinus* species, bearing pale blue, lemon yellow, bright rose, and no flowers, respectively. Any or all of these could be new Middlesex, or even new British records; they are certainly not of garden origin.

*Occasional:* *Daucus carota*, *Apium graveolens* var *dulce*, *Pastinaca sativa*, *Beta vulgaris*, *Brassica napus*, and one each of *Cannabis sativa* and *Datura stramonium*.

*Medicago sativa* and *Melilotus* species were carefully sought here, but not found. It is possible that at least some of the Vetches and Dandelions might survive the winter *in situ*, and so become identifiable next season. The Lupins are being grown on under glass for hopeful naming; they seldom transplant well, but they'd never stand up to a frost anyway.

Interestingly, it was also observed that several Fodder Burnets, Sainfoins, Parsnips and Carrots occurred elsewhere along a two-mile stretch of the same canal. Could these be indicative of similar "agrimix" seeds having been introduced at various points in past years? From the above list, they are perhaps among the species one might expect to compete longest (although not indefinitely) with recolonising native vegetation.

In short, the origin of this Victoria Park collection remains a mystery, so any enlightening theories would be welcome!

BRIAN WURZELL, 47 Rostrevor Ave, Tottenham LONDON N.15.

**BSBI NETWORK RESEARCH PROJECT ON  
POLYMORPHIC VARIATION IN *ARUM MACULATUM* L.**

In this survey some members have had difficulty in allocating a shade of green to the leaves from the three alternatives offered on the form i.e. "yellowish, light or dark" green. It has been suggested that for a more precise description recorders should use Dulux Matchmaker Cards. These will be sent on request if recorders write to:

Customer Services Dept.,  
I.C.I. Paints Division,  
Wexham Road,  
SLOUGH SL2 5DS.

or they may be obtained from D.I.Y. shops and stores which are agents for Dulux paints.

Using these Matchmaker Cards for scientific research is not original – they have been used by marine biologists for colour matching shore-crabs, in which the colour in life is essential for identification, and from I.C.I. we hear that the cards have also been used in the study of chameleons. For the *Arum maculatum* survey more precision in describing the colour(s) of the spadix would also be very helpful and Philip Harmes writes:-

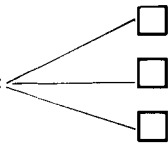
As a further phase in the development of this Network Research Project, it has been decided to include Dulux Matchmaker shade card numbers as an aid to the recording of leaf and spadix colour. It is hoped that this additional data will provide a more objective assessment of leaf colour and spadix colour-form variation in *Arum maculatum* L.

BSBI members who wish to record their results in this way should follow the procedure outline below:-

- (1) Obtain shade card numbers 6, 7, 10, 11, 23, 25, 29 & 30, as directed above.
- (2) For each plant chosen at random, match the colour of the leaf and spadix to the nearest shade from the colour range on the most appropriate Matchmaker card. Will members please note that in cases where the colour of the spadix is not uniform (e.g. Intermediate, yellow with purple markings), both colours should be recorded.
- (3) Record the results on the survey form as follows:

**SPADIX COLOUR**

- 1. Purple 11/1349
- 2. Yellow

- Intermediate: 
- 3. Light purple
  - 4. Yellow with purple markings
  - 5. Other:-

i.e. 11 = Dulux Matchmaker Card No. 11. 1349 No. of shade "Morello".

MARY BRIGGS

PHILIP HARMES  
21 Newthorn Place  
BUCKLEY, Clwyd  
CH7 2EY.

## THE NOT SO HARDY BRITISH OAK

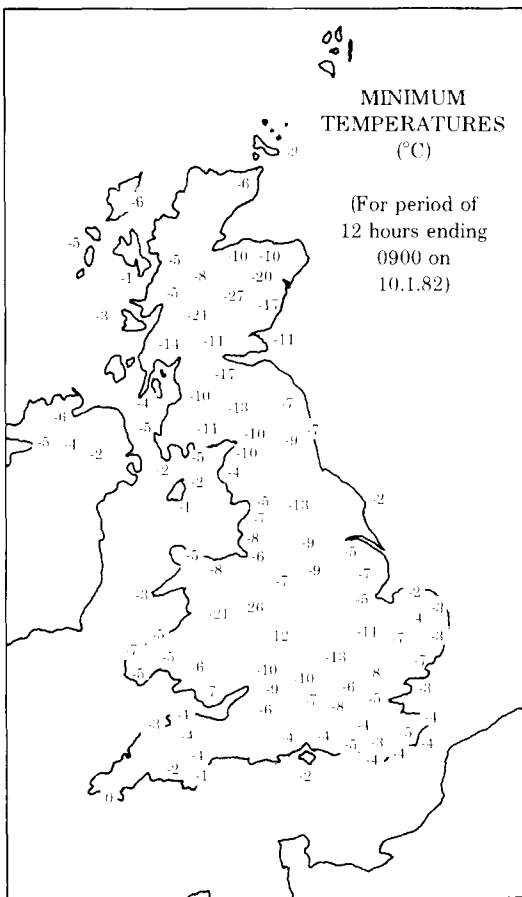
When writing to a fellow Black Poplar enthusiast, Mr. Kim Dodwell, in Shropshire last August, he showed me, in addition to two giant *Populus nigra*, 124 feet tall, many pedunculata oaks (*Quercus robur*) severely damaged by frost in the countryside around Shrewsbury. The frost occurred in the winter of 1981-2, also cutting bark holly (*Ilex aquifolium*) both as trees and in hedges, and causing the branches deodar (*Cedrus deodara*) to lose their needles and drooping habit, and to turn their bare tips upwards, completely altering the form of this tree!

I had never before seen oaks so damaged. The branches had been killed back many feet, and are now sprouting from the live wood, completely spoiling the shape of the trees. I was not surprised to see the evergreen holly damaged, but that frost could damage leafless twigs and branches of a hardy tree at a time of complete dormancy seemed to me to be quite remarkable.. So I wrote to the Meteorological Office to discover the extent, severity and dates of this severe frost. They told me that in January 1982, after several days of snow and relatively cold weather, the snow moved away and an area of high pressure established itself over the country giving clear conditions which allowed overnight temperatures to drop to extremely low levels, new records being set up in several areas.

I was sent minimum air temperature maps covering 10th to 12th January, which showed the Shropshire area to be the coldest part of England and Wales. On 10th January temperature at Newport fell to a new English low,  $-26.1^{\circ}\text{C}$  ( $-15^{\circ}\text{F}$ )! On the two following nights minimum air temperatures of  $-23^{\circ}\text{C}$  ( $-9^{\circ}\text{F}$ ) and  $-19^{\circ}\text{C}$  ( $-2^{\circ}\text{F}$ ) were recorded in Shropshire, whilst elsewhere in England the lowest air temperature barely reached two figures below zero centigrade. Day maximum temperatures during these days in Shropshire were  $-5^{\circ}\text{C}$ ,  $-9^{\circ}\text{C}$  and  $-4^{\circ}\text{C}$  respectively, colder than anywhere else in England. It seems, therefore, that it was the record frost of 10th January that did the damage.

I would like to express my thanks to Mr. P.A. Harvey of the Met. Office for supplying me with these most helpful statistics.

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## NATURALISED COTONEASTERS

A series of drawings illustrating Cotoneasters naturalised in Britain is planned for *BSBI News*, with accompanying notes.

The process of determining Cotoneasters is a slow one, often in the nature of “two steps forward, one step back”. Nevertheless a large number of naturalised species have been named with some certainty; many others are being grown on from collected seedlings or from seed in the hope that they can be named on reaching maturity. Naturalisation varies from, say, a few seedlings seen near bushes on a roadside, to those established on high open ground far from habitation. As an example there seem to be about nine species on the chalk downs above Otford and Kemsing in West Kent. Those found only marginally naturalised at first, often turn out to be more widely established in the course of time. The expectation is that eventually as many as 40 species will prove to be naturalised in Britain, with perhaps the same number of varieties.

Determination involves looking at both flowers and fruit. Additionally small specimens are often untypical as to leaf shape and size, and if obvious parents are not nearby they therefore require to be grown on or revisited until the necessary characters appear.

It may be helpful to set out the questions which have to be asked in relation to *Cotoneasters* in order to ensure a correct determination:

1. Are the fruits (on bushes) finally a) blackish, or b) some other colour (red, orange, pink or yellow)? What is the shape and size of the fruits?
2. Is the species a) evergreen, b) deciduous, or c) semi-evergreen, by the end of winter? What is the shape, size and colour of leaves on mature bushes?
3. Are the petals a) upright and pink, or b) spreading (flat) and white?
4. What is the growth habit a) prostrate, b) arching and/or ground covering, c) upright shrub, d) tree-like?
5. What is the height range of mature specimens (if present)?
6. What is the colour and thickness of any indumentum on leaves and stems?

It should be noted that many of these characters cannot be seen in pressed specimens – in particular red fruits nearly always turn black after pressing. Determination is very much easier in the field or from fresh material.

J.R. PALMER, 19 Water Mill Way, South Darenth, DARTFORD, Kent DA4 9BB.

### *COTONEASTER ADPRESSUS* BOIS

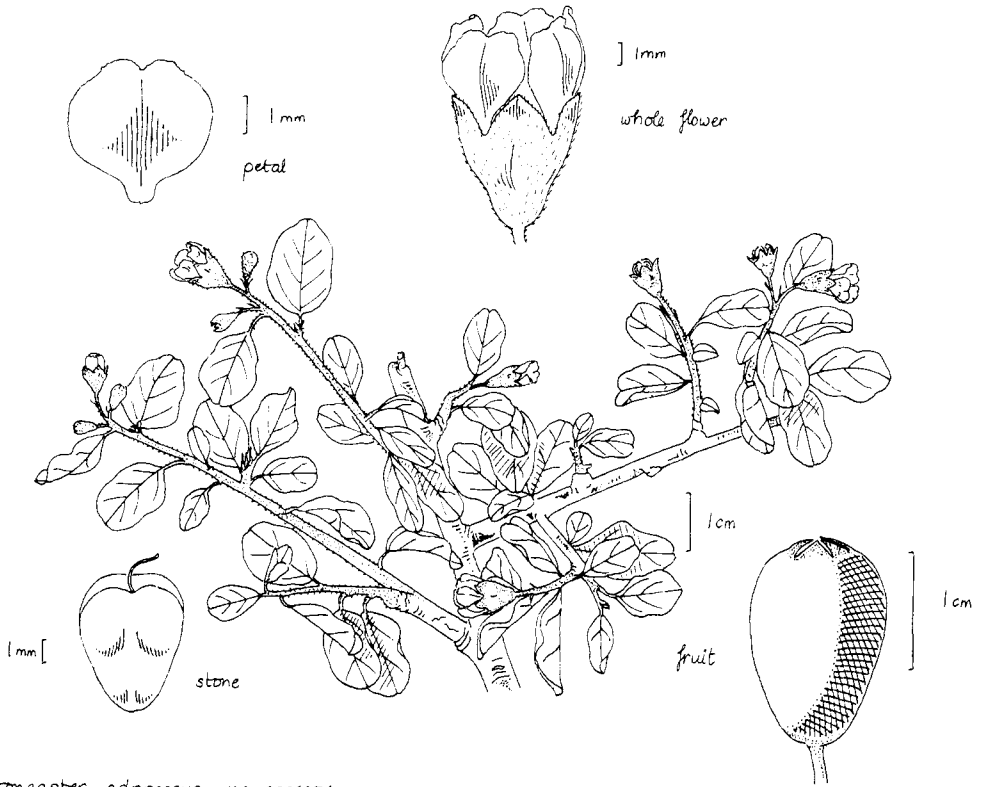
This small shrub has now been found naturalised in W. Kent (V-C 16) and Surrey (V-C 17) and as it is widely sold in nurseries, particularly in its form *var. praecox*, it seems certain that further sightings will be made. Publication of Hilli Thompson's drawing thus seems appropriate.

*C. adpressus* is like *C. horizontalis* to some extent e.g. in its flowers and prostrate habit. However, in general appearance it differs considerably;

1. *Twigs* – shorter, thicker, more rigid, much less regular in arrangement. Some pointing backwards.
2. *Leaves* – upper surface duller and darker green in colour. *Wavy-edged*.

(N.B. Var. *praecox*, as seen in W. Kent, is larger in all its parts, particularly as regards its fruits which at up to 12 mm long are bigger than I have seen on any other naturalised species of *Cotoneaster*. The fruits ripen earlier, in August, and may be missing completely by the autumn. They are orange-red in colour as compared with the darkish-scarlet of the type).

J.R. PALMER, 19 Water Mill Way, South Darenth, DARTFORD, Kent DA4 9BB.



*Cotoneaster adpressus* var. *praecox*

Hilli 16.10.1984

© Hilli Thompson 1984

## TWO ADDITIONAL SITES FOR *LONICERA NITIDA* WILS.

East side of Wallhope Grove, Tidenham, VC34, GR (ST 5496). A large plant growing under branches used by birds on wood/field edge, as perch after feeding and distant from houses.

Pathside, Bargain Wood north of Tintern, VC35, GR (SO 5202). A large bush near Portaloos possibly growing from dumped garden rubbish. Garden cleanings were in evidence in other spots near the car park in the wood.

### Monmouthshire (Gwent) Plant Atlas?

By March 1985, I shall have a Welsh Field Card labelled for each tetrad in VC35, 2000 VC maps in tetrad form, 25 sets of minimap sheets (*Watsonia* 12:246) in the hope that an atlas can be produced in 5 years. There are 25 10 km squares and 420 tetrads involved. There is no detailed and comprehensive plant census available for the county, so it is time this situation was remedied. Active county botanists are thin on the ground so I am hoping volunteers from neighbouring counties will give a hand. The first requirement is for 25 botanists to take responsibility for a 10 km square each to recruit assistants and guide them through their 'square bashing' and to check and collate their results at the end of each season before passing them on to me for entry on to the maps. Anyone who can help please contact me on tel. no. (0291) 270802, supervisors and square bashers welcome.

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

## FLAVOURING VODKA

I was interested to read the item in the December *BSBI News* (page 24) about the Russian gentlemen searching Hampstead Heath for plants to flavour their vodka. Many different plants have been used in Russia and elsewhere to flavour vodka and schnaps. I have come across an extensive list of semi-tropical plants used for flavouring Russian vodka. In *The Penguin Book of Spirits & Liqueurs*, Pamela Vandyke Price writes that one type of Polish vodka has a blade of grass inside the bottle. The grass used is *Hierocloe odorata*, vanilla grass. Perhaps sweet vernal grass, (*Anthoxanthum odoratum*) would also work.

In 'Faroese Flowers' by Dorete Block, (Foroya Frodskaparfelag, Torshaven, 1980) there is mention of five plants used to give a good flavour to schnaps, all of these plants grow in Russia and most also grow around Hampstead. She lists, slender St. John's wort, (*Hypericum pulcrum*); common tormentil, (*Potentilla erecta*); angelica, (*Angelica archangelica*); yarrow, (*Achillea millefolium* and tansy, (*Tanacetum vulgare*). The *Hypericum* is said to give a slight bitter flavour, all the others are described as giving good flavour. The *Hypericum* and the *Potentilla* both colour the schnaps red. Tansy has been used as a flavouring in Britain but it is now considered too poisonous to be allowed.

Has anyone contacts; perhaps we should ask the Russian Embassy.

DR. F.M. TAYLER, 50 Cricket Lane, Lichfield, STAFFS WS14 9ER.

*HIERACIUM SPELUNCARUM* ARV.-TOUV.  
IN SOME BRITISH LOCALITIES

Hawkweed studies are well-known to be fraught with difficulties, and are usually avoided by the wise. Modern academic training sometimes seems the last thing likely to help in this wilderness; the skills and senses of an aboriginal tracker would be much more appropriate. Even Section *Amplexicaulia*, a group with only three species naturalised in Britain, shows some of the problems associated with the genus.

*Amplexicaulia* hawkweeds are natives of the alps of SW Europe, but naturalise further north, having been known for years in N France and Germany, as well as in Britain. Pugsley in his *Prodromus* says "The occurrence of three species of this group as naturalised plants in widely scattered localities of Great Britain does not admit of ready explanation", but the showy character of the plants makes their introduction as ornamentals very possible. J.W. White (1912) mentions seeing these hawkweeds 'in abundance' in the high mountains of Spain and in the Pyrenees, so they may have caught the eye of many travellers and alpine collectors. Most of the British populations are on old walls close to habitation, and indeed the best known site for *H. amplexicaule* itself is the walls of the Botanic Gardens in Oxford. In Bristol *H. speluncarum*, a vigorous and tenacious grower, has several strong colonies on garden and mews walls, and spreads from its site in the Botanic Gardens here to these walls also.

The existence of photographs taken by H.S. Thompson in the 1930's of this hawkweed in its original site at Richmond Hill, where it persists, prompted me to look into the history of this species in and around Bristol. An excellent summary of the history and status of the *Amplexicaulia* Section in general has been given by Jim Bevan (Bevan, 1982), and I am indebted to him for much information and for permission to reproduce the leaf figures given below.

The three members of the group known in England and Scotland, but not yet reported from Wales or Ireland, are *H. amplexicaule* L., *H. speluncarum* (Arv.-Touv.) Arv.-Touv., and *H. pulmonarioides* Villars. The earliest record is for *H. amplexicaule* in Sibthorp (1974). At first all the plants were attributed to this species, and herbarium specimens not recently examined by an expert might well have this name. However, in 1920 Pugsley distinguished *H. pulmonarioides*, and in 1941 he added *H. speluncarum*. In Bristol, and at Mells in N. Somerset, there are fine colonies of *H. speluncarum*, and their naming has followed this order quite smoothly. The first published record is a typically endearing note in White (1912): "It [*H. amplexicaule*] has long grown upon a garden wall on Richmond Hill, Clifton; and was noted thence many years ago by Mr. F.J. Hanbury in his unfinished . . . Monograph. The plant continued in good order . . . until July, 1910, when it flowered handsomely along some yards of the roadside wall. But this display, so attractive to many of us, must have seemed offensive to someone, for within a few days very nearly the whole of it was ruthlessly torn away". This still sometimes happens, but some local inhabitants tolerate or even cherish the plant, and it can still be seen 'flowering handsomely'.

In Mells this species also first appears as '*H. amplexicaule*'. Marshall (1914) mentions "... a luxuriant garden specimen" raised from Mells seed, which was sent him in 1913. In fact a note in the handwriting of N.Y. Sandwith exists saying "Noted from Mells as early as 1905 by G.B. Milne-Redhead. mss. "(A.J. Willis, pers. comm.). The same species was later collected by Dr. Druce while on a trip to Mells to see another famous naturalised plant, *Scutellaria altissima*. (R.G.B. Roe, pers. comm.). This was reported by J.W. White (1929) and the species name and identification was updated to '*H. pulmonarioides*'. However the Mells and Bristol colonies are of the same species, and no later determination has disagreed with Pugsley's 1941 attribution of the Bristol plants to *H. speluncarum*, so this identity now seems as secure as anything in the world of Hieracia.

Among other colonies the identification process still continues. Perthshire has some historic populations. As early as 1898, F.B.W. White's *Flora of Perthshire* quotes a list of F.J. Hanbury's recording '*H. amplexicaule*' at Barnhill. A site at Kenmore is currently of great interest. Many specimens from this place exist in herbaria, in fact the material named as *H. pulmonarioides* by Pugsley in 1920 was collected at Kenmore in 1907, and up to as late as 1958 all material from here was given this name. However, more recent specimens in the BM, both of plants collected at Kenmore and some grown at Cambridge from Kenmore seed, are now considered to be definitely *H. speluncarum*. The reported very large size of this population makes it possible that both species are there, but examination of the live plants will be essential, as the difference between these two species are of a kind which can be unclear in pressed material.

All Section *Amplexicaulia* differ from other Hieracia known in Britain by the presence of very obvious dense, unequal glandular hairs on the upper surfaces of the leaves, as well as on the more usual places: stems, phyllaries (bracts) etc. *H. amplexicaule* has only these glandular hairs, but the other two species have also long simple hairs, as shown in fig. 1. Between *H. pulmonarioides* and *H. speluncarum* differences are slight enough for subjective interpretation to lead to problems of identification. The main differences are as follows:

<i>H. speluncarum</i>	<i>H. pulmonarioides</i>
Robust, stems up to 60 cm	Slighter growth, stems to 40 or 50 cm.
Leaves yellow-green	Leaves pale, often glaucescent
Lower leaves broad, ovate	Lower leaves narrower, sharply toothed
Cauline leaves clasping stem	Cauline leaves narrower, half clasping stem

These can be perfectly helpful with good specimens, but especially with herbarium material these are often not available. All in this Section are hard to press, being large, sometimes gross, with many leaves and thick tough stems. Many specimens are too large to fit the whole plant on to any normal sheet. Leaf colour seems always to be lost, and stem leaves are often crumpled and squashed out of shape making judgement of the degree of clasping very difficult. Pugsley also gives as a character for *H. speluncarum* 'less attenuated phyllaries', but variation is usually enough to make me at least quite unable to judge how much less is 'less'.



Our *Amplexicaulia* denizens are easy compared for instance to our native *Alpina*'s, but I find it interesting that even this tiny Section can show such a pattern for the kind of problems associated with this strange race. They show the historic uncertainties, the slow process of re-naming and defining species, the odd tales of the survival of scattered colonies in the apomictic isolation of all *Hieracia* species, and, of course, in this huge critical group, the difficulty of finding and learning characters which really separate species, and are not just a response of the plant to physical conditions, or the botanist to this extraordinary genus.

ROSEMARY FITZGERALD, 40 Alfred Place, Kingsdown, BRISTOL B52 8HD.

Fig. 1



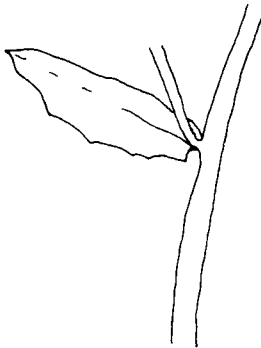
*amplexicaule*



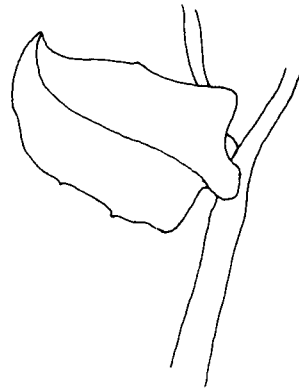
*pulmonarioides & speluncarum*

Glandular and non-glandular hairs along leaf margin.

Fig. 2



*pulmonarioides*



*speluncarum*

Cauline (stem) leaves separating *H. pulmonarioides* from *H. speluncarum*

## ELDERS WITH PURPLE LEAVES

In the 1950s, at least three plants of *Sambucus nigra* with dark, purple-flushed leaves and pink flowers, were found in widely scattered places in Great Britain. The three were propagated, and at least one of the resulting clones is now commercially available. As pointed out in a query published in the *Gardener's Chronicle* (p. 567) in 1964 by R.D. Meikle, no records can be found of this form of the elder in early botanical or horticultural literature. I am presently preparing a nomenclatural note on this plant and its commercial clone, and would be grateful to hear from anyone who has seen purple-leaved elders *IN THE WILD*. It is clearly a very rare variant of the species, but perhaps not as rare as we think. None has been recorded from Ireland.

CHARLES NELSON, National Botanic Gardens, Glasnevin, DUBLIN 9, Ireland.

### *ARUM ORIENTALE* SUBSP. *DANICUM* X *MACULATUM*, AN OVERLOOKED INTERSPECIFIC HYBRID

There is an artificial hybrid in the genus *Arum* which, to the best of my knowledge, has been hitherto overlooked. The history of the hybrid is an interesting one.

In 1951, C.T. Prime reciprocally pollinated several plants of the supposed Danish race of *Arum maculatum* L. ( $2n = 28$ ) with the tetraploid race ( $2n = 56$ ) and obtained viable seeds; the F. hybrid progeny grew to be virtually indistinguishable from those of a control "56" race sown at the same time, although differences were expected to occur in later generations (Prime 1955, 1960). On the basis of these experimental crosses and cytological evidence, the rank of subspecies was conferred upon the Danish race. Accordingly, the newly recognised subspecies was validly published under the name of *A. maculatum* L. subsp. *janicum* (Prime 1961).

It is of interest to learn, however, that in *Flora Europaea* 5:269-211 (1980) no infraspecific taxa are now recognised in *A. maculatum* L. In other words, subsp. *janicum* has undergone a change in taxonomic position. The taxon is now placed under the closely related species *A. orientale* and treated as a new subsp., viz. *A. orientale* Bieb. subsp. *danicum* (Prime). Hence Prime's experimental hybrids provide an example of crosses between different taxonomic species and come under the formula *A. orientale* subsp. *janicum* x *A. maculatum*. I have made a thorough search and, as far as I am aware, there are not published records of this interspecific hybrid in the literature.

Regarding the occurrence of natural hybrids in the wild, it is plausible that such hybrids may occur where the geographical ranges of these two species overlap, that is, in southern Denmark (Prime 1961). Furthermore, the occurrence of these hybrids is made more probable by the fact that the ecological preferences and flowering periods of the species are broadly similar. Such speculation, however, must await the result of further studies in the field.

P. HARMES, 21 Newthorn Place, BUCKLEY, Clwyd.

## THE RACE QUESTION

I write with reference to the first Kentish record of Lovage *Levisticum officinale* Koch as noted by J.R. Palmer in BSBI News 38 (p. 22).

I recently came across the catalogue of a herb nursery based in Staplehurst, Kent (Iden Croft Herbs) which lists Lovage as *Levisticum officinalis* and, allowing for a small amount of horticultural licence, this would seem to be the same species. Certainly, the description given of a plant 2 m high with yellow flowers could not be a reference to *Ligusticum scoticum* L. which seems to be rarely used as a commercial herb.

Staplehurst is almost exactly 10 miles (as the crow flies) away from Mr. Palmer's record at Wrotham and it is possible that these occurrences are linked. Mrs. Rosemary Titterington, one of the proprietors of Iden Croft Herbs, has informed me that she has had Lovage under cultivation for about fourteen years, during which time it has been routinely available as a pot-grown herb available for purchase from her nursery.

I do not in any way wish to diminish the value of Mr. Palmer's record, which could well be of the historical significance he suggests. However, I feel that this small example underlines a possible ambiguity with regard to botanical recording which is likely to be only the tip of a confusing iceberg which will develop rapidly over the coming years.

I refer not only to the increasing numbers of herb (in the medicinal sense) nurseries marketing native (though not always of native origin), naturalised and exotic herbs, but to the growth in pure native herb nurseries which is proceeding apace, with the cautious blessing of both the Nature Conservancy Council and the BSBI.

As a worker in urban ecology, I am keenly aware both of how much native plants are being pushed on to the market (often with unrealistic claims for their performances) and of how lucrative an operation this is currently proving for certain (though by no means all) nurseries. With the countryside in many areas grossly abused and with nature on the retreat, the current interest in urban wildlife and habitat creation is only natural.

However, the guidelines already laid down by the NCC and BSBI and to which reputable nurseries conform, still seem likely to result in the widespread planting of wildflowers outside of their natural geographical ranges, and in all sorts of strange 're-naturalisations' occurring. As for the larger commercial nurseries who have little or no truck with conservationists or botanists, they are rules unto themselves. Already some are expanding their ranges to include the more unusual elements of our native flora (although admittedly, some of these species have been available for many years) and with demand continuing, it seems likely that many gardens will specialise in native herbaceous borders by the year 2000!

I am well aware that the various BSBI committees have reacted as responsibly as they have been able to, to this situation, but I am very interested to know what the views of the grassroots membership are. Perhaps this letter can start some constructive discussion in the pages of BSBI News.

GERALD DAWE, The Birmingham Settlement, 318 Summer Lane, BIRMINGHAM B19 3RL.

## BOOK NOTES

In the July 1985 part of *Watsonia*, Vol. 15(4), reviews of the following books will be included:

*A Concise Dorset flora*, by R. Good.

*Nature Conservation in Britain & Summary of Objectives and Strategy*, by the N.C.C.

*The Macmillan Guide to Britain's Nature Reserves*, by J. Hywell-Davies and V. Thom.

*Directory of Important World Honey Sources*, by E. Crane, P. Walker and R. Day.

*The North West European Pollen Flora, IV*, edited by W. Punt and G.C.S. Clarke.

*Our Green and Living World; the Wisdom to Save*, by E. Ayensu, V.H. Heywood, G.L. Lucas and R.A. De Filipps.

*Phytochemical Methods*, ed. 2, by J.B. Harborne.

*Nature's Second Kingdom*, by F. Delaporte.

*The IUCN/WWF Plants Conservation Programme 1984-85* by the U.U.C.N.

*Flora of Inner Dublin*, by P. Wyse Jackson and M.S. Skeffington.

*Photographs in the R.J. Walsh Collection*, by staff of the Ulster Museum.

*The Sex Life of Flowers*, by B. Meeuse and S. Morris.

*English Plant Names in the Grete Herball (1526)*, by M. Ryden.

*Documents Floristiques III*, by the Institut Floristique Franco-Belge.

*Flowers of the Himalaya*, by O. Polunin and A. Stainton.

*Communicating in Science. Writing and Speaking*, by V. Booth.

*Kew Magazine*, edited by staff of the R.B.G., Kew.

The Following books have been received recently. Those that will NOT be reviewed in *Watsonia* are marked with an asterisk.

*Med-Checklist Programme. A critical inventory of the vascular plants of the circum-mediterranean countries*, ed. by H.M. Burdet.

*Leaves*, by G.T. Prance and K. Sandved.

*The Living Tundra*, by Y.I. Chernov.

*Guide to the Standard Floras of the World*, by D.G. Frodin.

*The Pollen Loads of the Honey Bee*, by D. Hodges.

*Plant Chemosystematics*, by J.B. Harborne and B.L. Turner.

\**Handbooks for the Identification of British Insects*, Vol. 2, Part 6.

*Aphids*, by H.L.G. Stroyan. Pp. 232, with 122 line drawings. Royal Entomological Society of London, London 1984. Price £14.50 (to non-fellows), £10.50 (to fellows).

I do not usually mention books on insects in these notes; but this handbook includes indices of aphid species, listed alphabetically according to their host, that will be useful to anyone interested in the general biology of British flowering plants, e.g. for the British Ecological Society's biological Flora of the British Isles.

\**Photochemistry and Photobiology*, ed. by A.H. Zewail. 2 vols. Pp. 1409, with numerous plates and text-figures. Harwood Academic Publishers, New York. Price \$175.00 (ISBN 3-7186-0205-9).

\*Society for Experimental Biology Series:-

19. *Storage Carbohydrates in Vascular Plants*, ed. by D.H. Lewis.

Pp. 284, with numerous text-figures. 1984. Price £35.00 (ISBN 0-521-23698-3).

20. *The Physiology and Biochemistry of Plant Respiration*, ed. by J.M. Palmer.

Pp. 195, with numerous text-figures. 1984. Price £30.00 (ISBN 0-521-23697-5).

21. *Chloroplast Biogenesis*, ed. by R.J. Ellis. Pp. 346, with numerous text-figures.

1984. Price £36.00 (ISBN 0-521-24816-7).

Cambridge University Press, Cambridge.

Finally, I must draw members' attention to *Plant-Lore Studies*, B.S.B.I. Conference Report No. 18, edited by Roy Vickery. This volume contains the papers read at the joint B.S.B.I. Folklore Society conference held at the University of Sussex in April 1983 and includes a foreword by our President, John Cannon. In it there are fascinating and important accounts of the popular names and traditional uses of various plants from different parts of the world, and of the beliefs and customs that have become associated with them. The book, which is also No. 18 in the Folklore Society's Mistletoe Series, can be obtained from the Folklore Society, c/o University College London, Gower Street, London WC1 6BT, price £6.50 (ISBN 0-903515-08-3).

British Museum (Nat. Hist.), LONDON SW7 5BD.

NORMAN ROBSON

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### NEWS FROM OUNDLE LODGE

The Publications Committee is anxious to sell more copies of the Society's Handbooks, Conference Reports, *British and Irish Herbaria*. The titles of which you receive lists from time to time represent money already spent; idle money which could be used for such things as reprinting *Umbellifers* and making a new edition of *English Names of Wild Flowers*, not to mention further handbooks.

What we need is a Sales Drive to clear these remaining stocks. The sooner they are sold, the quicker new titles will appear.

**YOU CAN HELP!**

**HOW?** In almost every town there is a bookshop stocking inexpensive natural history books. Introduce yourself – and incidentally BSBI – to the manager/owner pointing out that (1) BSBI Handbooks show *all* the plants in the sections they cover and (2) each is written and illustrated by nationally recognised authorities on the genera concerned.

In towns which boast a Technical College, Polytechnic or similar, there will be a bookshop to which they refer their students. These too should be persuaded to stock our publications. Will members make a special effort to find trade outlets for BSBI books, during this summer.

As well as serving the Society by stocking and selling its publications we try to help members by providing as complete a list of local floras, identification keys, and natural history guides as possible. Suggestions for additional publications which fit into these categories are welcome. Our book stock aims to serve the purposes of identification or to promote conservation.

Please note the changes in the Supplementary List hereunder.

MARGARET PERRING, Oundle Lodge, Oundle, PETERBOROUGH PE8 5TN.

## DELETIONS AND CHANGES TO AUTUMN 1984 STOCK LIST

All prices include postage

PLEASE AMEND THE AUTUMN 1984 LIST AS FOLLOWS

BIOLOGICAL ASPECTS OF RARE		ELM	37.50
PLANT CONSERVATION	38.00	ORCHIDS OF BRITAIN	11.50
PLANT LORE STUDIES	7.50	EDIBLE PLANTS	5.45
FLORA OF THE BRITISH ISLES 2nd			
Ed. paperback only	19.95		
DRAWINGS OF BRITISH PLANTS			
per Volume (Vol. 5 out of print)	17.50		
WOODLAND CONSERVATION etc.			
Reprinting mid-1985			
FLORA OF THE MEDITERRANEAN			
remaining at	7.50		
FLORA OF MULL	45.00		

### SUPPLEMENTARY STOCK LIST OF PUBLICATIONS

	LOCAL FLORAS and NATURAL V.C HISTORY GUIDES	BRITISH FLORAS	
S	FLORA OF JERSEY	FLORA OF THE BRITISH ISLES	
	Frances Le Sueur, 1985	ILLUSTRATIONS	
1a	A COLOUR GUIDE TO THE WILD FLOWERS OF SCILLY	Sybil Roles, Paperback 1984	
	Frank Gibson and David Hunt, 1984	Pterydophyta – Papilionaceae	
		Rosaceae – Polemoniaceae	
3/4	ATLAS OF THE DEVON FLORA	Boraginaceae – Compositae	
	Flowering Plants and Ferns	Monocotyledons	Each volume 8.95
	R.B. Ivimey-Cook, 1985	A SIMPLE FIELD KEY TO COMMON	
11/	WILD PLANTS OF MILFORD	BRITISH WILD FLOWERS	
12	P.T.B. Beale, 1928	Sylvia M. Arnold, 1983. A simple	
15	THE NATURAL HISTORY OF ROMNEY MARSH	language key (produced for extra	
	Dr F.M. Firth, 1984	mural students) to identify the majority of	
18/	THE NATURE OF ESSEX The wildlife and ecology of the County	British flowering plants. Ringbound	
	David Corke, 1984	and paperback.	5.00
39	FLORA OF STAFFORDSHIRE	<b>EUROPEAN FLORAS</b>	
	E.S. Edees, 1972	FLORA OF CYPRUS, VOLUME II	
39	WILDLIFE OF WOLVERHAMPTON	R.D. Meikle. To be published May '85	
	Godfrey Blunt, 1984	WILD FLOWERS OF THE CANARY ISLANDS	
61	WILDFLOWERS OF THE YORKSHIRE WOLDS	David and Zoe Bramwell, 1974.	
	Sylvia M. Arnold 1985, approx 75 pages, 14 black & white plates, 5 line drawings. Mid-April 1985 approx	Paperback 1984. Reprinting 1985	6.50
92	A NATURAL HISTORY OF	THE WILD FLOWERS OF BRITAIN AND NORTHERN EUROPE	
	ABERDEEN P. Marren, 1982	Richard Fitter, Alastair Fitter and M. Blamey, 1977. 4th edition May 1985	3.50
95	THE BRYOPHYTE FLORA OF MORAY Roland Richter, 1984	A Field Guide to the ORCHIDS OF BRITAIN AND EUROPE with N. Africa and the Middle East	
97	THE VASCULAR PLANTS OF NORTHERN ARDNAMURCHAN	J.G. Williams, A.E. Williams and N. Arlott, 1978	5.50
	Ruth H. Dobson, 1983. R'print (paper)	EUROPEAN GARDEN FLORA	
H21	THE FLORA OF INNER DUBLIN	VOLUME 2	
	Peter Wyse Jackson and Micheline Sheehy Skeffington. 1984 paperback	Ed S.M. Walters et al. 1984. The first volume to appear of a manual for the identification of plants Cultivated in Europe.	30.00

## OTHER BOOKS WITH BOTANICAL INTEREST

### A GUIDE TO THE VEGETATION OF BRITAIN AND EUROPE

Oleg Polunin and Martin Walters, 1985. 180 pages, 156 illustrations, 48 colour plates. A general account of the main types of natural and semi-natural vegetation covering Europe.

May, about 15.00

### MOUNTAIN FLOWERS

John Raven and Max Walters, 1956. Paperback edition of this popular New Naturalist title 1984. Black and white photographs only.

7.00

### FLOWERS OF THE HIMALAYA

Oleg Polunin and Adam Stainton, 1985. 428 pages, 128 pages of colour plates. Line drawings and maps. Descriptions of the area, the flora, species plus glossary and bibliography. 29.50

### HOW TO MAKE A WILDLIFE GARDEN

Chris Baines, 1985. 192 pages, colour plates and line drawings throughout. A practical step by step guide showing how any garden could provide a natural habitat for wildlife.

Available April

8.95

For further information send s.a.e. (f/scap) to:

MARGARET PERRING, Oundle Lodge, Oundle, PETERBOROUGH PE8 5TN.

## NEW EXHIBITION AT PERTH MUSEUM

BSBI members planning a visit to Ben Lawers or any other part of 'Perthshire' (now Perth and Kinross District) may be interested to hear of a major new exhibition at Perth Museum and Art Gallery.

Entitling, "Introducing the Natural History of Perth and Kinross" the displays cover the geological history of the area, the effect of man on the landscape and eight of the most important habitat types found there today.

Members may not be aware that the museum also contains an extensive herbarium (which formed the basis for White's 1898 Flora of Perthshire) and which is available for study by prior application. The herbarium was designated for the receipt of vouchers from V.C.s 87, 88, 89 by Perring (*Watsonia* 8, 435-447) and we would be pleased to receive any material from these vice counties. For further information please contact MICHAEL A. TAYLOR, Keeper of Natural Sciences, Perth Museum and Art Gallery, George Street, PERTH PH1 5LB.

## EUPHRASIA REPRINTS AVAILABLE

A rather large printing of 'A taxonomic revision of *Euphrasia* in Europe' (Botanical Journal of the Linnean Society 77:223-334. 1978) was ordered and copies are still available. I shall be pleased to send one to any BSBI member who requests it, on receipt of a self-addressed adhesive label bearing 34p postage.

P.F. YEO, University Botanic Garden, CAMBRIDGE CB2 1JF.

THE INTERNATIONAL BEE RESEARCH ASSOCIATION informs us that the 1985/86 edition of their List No. 1 is available on receipt of S.A.E. from: IBRA, Hill House, GERRARDS CROSS, Bucks SL9 0NR.

We apologise for the mis-spelling on p. 31 of issue No. 37 which should read *Campanula poscharshyana*.

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