



Rosemary Wise.

Stachys Annua

EDITOR'S NOTES

As the front cover clearly shows, the search for artists willing and able to draw adventive plants has not been in vain. Mrs Rosemary Wise's drawing of *Stachys annua* is another excellent example of plant portraiture which really deserves a better venue than *News*.

As there is obviously no point in duplicating articles in *News* and *Watsonia*, will regional secretaries and meeting leaders please note that only brief and fairly light-hearted accounts of meetings and other activities are needed for *News*. The more detailed, serious accounts should be reserved for *Watsonia*.

For those who would like to contribute to *News 13*, would you please note that the deadline for copy is July 31st.

Miss Conacher has pointed out that in the account of the 1975 AGM which appeared in Secretary's notes in *News* No. 10, the place of the meeting was given incorrectly as Lochmaben Primary School. This should have read Loreburn Primary School. The editor is sorry for any confusion that may have arisen from the error.

KENNETH A. BECKETT

SECRETARY'S NOTES

The good response to various requests published in past numbers of *BSBI News* is very encouraging. A recent book request brought three offers and two interested purchasers of any surplus offers. So in all we had six satisfied customers. We thank all members who have replied to requests, not only for filling the specific need, but also for giving tangible proof that *News* is read.

Among queries for equipment that come in from time to time, we are asked for vasculum suppliers (see page 23), and also for a double hand lens with 10X and 20X magnification. This we have now tracked down to H. W. English, Optical Supplier, 469 Rayleigh Road, Hutton, Brentwood, Essex, CM13 1SU. Cost is £3.50 at time of going to press.

As a post-script to Eric Clement's useful key for *Bupleurum lancifolium* and *B. rotundifolium*. (*B.S.B.I. News* No. 10, p. 13) a Sussex member, Brian Harris grows both species in his garden, giving the opportunity of direct comparison of living material. He has pointed out that the difference in colour is the most striking distinction;—*B. rotundifolium* being a glaucous blue-green, *B. lancifolium* a yellowish green with the bracts almost yellow.

Notice is hereby given that a meeting of members of the Society, normally resident in Scotland and of members, whether resident or not, who are Recorders for vice-counties within Scotland, will be held at the Department of Botany, The University, Glasgow G12 8QQ, on Saturday, 6th November, 1976 at 14.00 hrs.

AGENDA

1. Minutes of the meeting held on 4th November, 1972.
2. To elect four members to serve on the Committee for the Study of the Scottish Flora.
3. Any other business.

In accordance with Schedule III of the 1972 rules it is necessary to elect four members, normally resident in Scotland (v. cs. 72-112) or non-resident members who are recorders of vice-counties within Scotland, to serve on the Committee for the Study of the Scottish Flora for a term of four years. Nominations of such members must be in writing, signed by two such members, and accompanied by the written consent of the candidate to serve if elected. Nominations should be sent to the Honorary Secretary, C.S.S.F., Department of Botany, The University, Glasgow G12 8QQ not later than 10th October, 1976. In the event of fewer than four nominations being received the C.S.S.F. has power to make nominations.

MARY BRIGGS
Honorary General Secretary

J. EDWARD LOUSLEY

It is with deep regret that we report the death of J. Edward Lousley, very suddenly at home on 6th January, 1976. Ted Lousley, who joined in 1927, was elected an Honorary Member in 1956 and was twice President of the Society (1961-63, 1963-65), and held office as Vice-President no less than four times, also as Hon. Treasurer (1941-50) and Hon. General Secretary (1950-56). He was elected to The Committee of the Botanical Society and Exchange Club of the British Isles (later the Council of the Botanical Society of the British Isles) in 1936, and 1976 was his 40th continuous year on the Council of the Society, as an elected or an *ex officio* member.

Through the years he served at different times on the following Committees:— Development Sub-Committee, Advertising Committee, Future Development Committee, Development and Rules Committee; Field Work Sub-Committee, Excursions and Field Work Sub-Committee, Exhibits Committee, Meetings Committee; Threats Committee, Wild Plant Protection Working Party, Teesdale Committee, Conservation Committee; Maps Committee, Maps & Local Flora Committee, Records Committee; Editorial Sub-Committee and Publications Committee.

At the time of his death Ted was serving on Council Publications Committee and he was the Chairman of the Records Committee. A full obituary, appreciation and bibliography will be published in *Watsonia* II (3), January 1977. Meanwhile in reporting this very sad loss we send sincere sympathy on behalf of members to Mrs Dorothy Lousley and their daughter Margaret.

A memorial service has been arranged for 20th February, 1976.

M.B.

CONSERVATION CONFERENCE RESOLUTIONS

(held at the Royal Botanic Gardens, Kew, 2-6 September 1975)

The Conference was attended by 135 delegates and members from countries of every continent. The meeting was especially valuable in bringing together curators, technical managers and members of the scientific staffs of many European and North American botanic gardens who now look upon conservation as one of their most significant functions. Universities, research institute and conservation agencies were well represented.

The Conference strongly asserted that the basic requirement for the preservation of the threatened floras of the world was conservation in the natural habitat by the extension of nature protection policies and the setting up of an adequate network of ecosystem reserves in all the major floristic regions. With this as the fundamental principle, speakers examined the ways in which living plant collections could be developed and managed as conservation resources in their own right and in support of field conservation through research and education.

The full Proceedings of the Conference will be published in volume form. In the final plenary session it was agreed that the Resolutions calling for early action should be published separately and given wide circulation. The following were agreed unanimously.

Resolutions

1. This conference, conscious that the rich tropical floras of the world are now in great hazard, (1) urges that a strong network of nature reserves and conservation-orientated gardens should be established throughout the tropics both through the strengthening and development of existing foundations and through the creation of new ones where the need exists; (2) recommends that institutions in temperate countries should offer all possible help in this programme through technical aid, training and the secondment of personnel; and (3) urges that this aim should be pursued through the International Union for Conservation of Nature and Natural Resources to ensure good co-ordination and proper understanding of the importance of the work for the tropical countries themselves and for the whole of mankind.
2. This Conference urges that special attention be given to the Conservation of Threatened Floras particularly of Islands and those parts of the world with Mediterranean or similar climates since both are often inhabited by very large numbers of narrowly endemic species of plants endangered by human activities.
3. This Conference recommends that institutions maintaining plant collections (including seed collections) for conservation purposes should, in general, give priority to their local flora, so as (1) to benefit from local taxonomic ecological, physiological and other pertinent specialist knowledge; (2) to reduce the need to simulate remote climates with the attendant costs and dependence on man-generated energy; (3) to be able to offer from direct experience information and advice concerning field conservation in the country of the institution, and (4) to provide a basis from which public interest and pride in the indigenous flora can be developed through display and education services.
4. This Conference urges all Governments to ratify the "Convention on International Trade in Endangered Species of Wild Fauna and Flora" as soon as possible.
5. This Conference recommends that, wherever possible, all living plant collections grown for conservation purposes should also be stored in the form of seeds under appropriate conditions for long-term conservation.
6. This Conference urges that the propagation of rare and endangered species, including research into appropriate techniques, should be actively pursued by Botanic Gardens and other bodies maintaining living plant collections, and

that such activities should be financially supported where necessary by Conservation, or other appropriate Organisations. Special attention should be given to economic plants and their wild relatives and to plants which are or might be commercially used.

7. This Conference urges that whenever threatened plants are taken into cultivation, this be done by means of seed and/or cuttings whenever possible so as not to deplete the wild populations.
8. This Conference, aware of the urgent need for scientifically verified lists of threatened species on a world scale, calls for the full support for the work of the I.U.C.N. Threatened Plants Committee in compiling such lists, and urges the task of propagating stocks of species on institutions maintaining living plant collections.
9. This Conference calls for the widest publicity to its full deliberations to be given in all appropriate quarters, and urges that the resolutions should be made available separately for this purpose with the minimum delay.
10. This Conference, being acutely aware of the urgency and complexity of many problems which have been raised during the sessions, urges the desirability of continued study and exchange of information, and the setting up of working parties to continue the study of outstanding issues, e.g.
 1. listing of collections, documentation and dissemination of information.
 2. commercial use of wild species.
 3. preparation of codes of practise.
 4. publicity.
 5. relationship between institutions maintaining living plant collections and organisations concerned with nature conservation.
 6. compilation of a short list of rare and endangered plants of high scientific importance to be commended to botanic gardens to bring them into cultivation.

Future communications may be addressed to either:

Mr J. B. Simmons, Conference Director or

Mr R. I. Beyer, Conference Organiser, Royal Botanic Gardens, Kew.

CONSERVATION EXHIBIT AT THE BRITISH MUSEUM

An exhibit on the Conservation of Wild Creatures and Wild Plants Act is on display in the North Hall, British Museum (Natural History). The closing date has not yet been decided, but the exhibit will remain on show at least until midsummer. A general introduction 'Why Conserve?' is followed by panels showing familiar wild flowers, flowerless plants and orchids, (also bats, the large blue butterfly and creatures of sandy heaths). A slide show with commentary runs continuously and a booklet **Wildlife, the law and you** is available at 10p, or 20p by post from the British Museum, (Natural History), Cromwell Road, London SW7 5BD.

WILD PLANT CONSERVATION

At a time when the BSBI is doing so much to ensure the survival of our native flora in the future it is distressing to receive information from members which show that despite our efforts much of the good we do is undone by a few thoughtless acts by a few thoughtless members.

Asplenium cuneifolium is a fern closely related to black spleenwort, (*A. adiantum-nigrum*) which, as has recently been shown, occurs in this country on rocks of a particular kind. The discovery was announced at the Exhibition Meeting in Edinburgh 1973. The following year the finders were bombarded with large quantities of uprooted living material from all over the country by a botanist apparently trying to create new county records: by this blanket collecting it is quite possible she eliminated the plant from one of its localities.

There really is no excuse for this kind of behaviour—and of course now it is an offence to dig up plants anywhere without permission from the owner. Despite all the evidence from the past it seems that ferns are still particularly threatened by collectors.

There are reports that some of our rarest species, even those covered by the **Conservation of Wild Creatures and Wild Plants Act**, have been eliminated from some of their localities by collectors in the last five years.

Will everyone please try to ensure that this kind of activity is shamed out of existence. I believe that anyone found making blanket collections of rare species should be denied membership of our Society. As prime movers of the Act our own behaviour must be beyond reproach.

F. H. PERRING

GLOBE FLOWER APPEAL

The Medlock and Thame Valley Conservation Association has launched an appeal to save from destruction an area of grazing meadow within Oldham Metropolitan Borough. A little known, but fine colony of *Trollius europaeus*, known locally as meadow bobs and first recorded in Wood's *Flora Mancuniensis* in 1840, flourishes there. The site is also valuable as a semi-natural habitat in a highly industrialised area. It is hoped to raise £1,000 to add to the local authority's allocation for the conservation work necessary to save this interesting site. Any contributions please to Mrs S. Ashton, Hon. Treasurer, MTVCA, 5 Fernlea, Lower Alt Hill, Ashton-under-Lyne, Lancs. (Cheques made payable to MTVCA Globe Flower appeal).

DENDROCHRONOLOGY SYMPOSIUM 1977

Our members will remember the successful Symposium on The British Oak held at the University of Sussex in September 1973. Tree-ring measurements on recently felled oaks and on medieval timbers formed the subject of the contribution by John Fletcher of Oxford University. This new field of research, together with its applications in archaeology and art history, is to have its first European regional conference from 10-14 July 1977. The title of the symposium is Dendrochronology

in Northern Europe, and it will be centred on the National Maritime Museum at Greenwich who, with the Research Laboratory for Archaeology and Art History at Oxford University, are the organisers. The First Circular has just been issued and can be obtained by writing to the Symposium Organiser at the Museum, the address of which is Greenwich, London SE10 9NF.

There will be papers by specialists on subjects such as techniques for the study of the chronological indicators that trees display; geographical variations in the curves derived from tree-ring widths and their ecological interpretation. But the sessions are to be arranged to allow ample time for short contributions and for discussions, so that the conference should be attractive to those interested in the subject but not engaged full-time in it.

The final day, 14 July 1977, is to be partly spent on visits in central London to see the archaeological material that is being excavated from the Thames waterfront and dated by this technique. There will also be an opportunity to see, at Westminster Abbey and the National Portrait Gallery, some of the oak chests and oak panels which, by their long sequences of annual rings from slow-grown trees, have contributed to chronology building for England. The exhibits will include examples of the occasional abnormality which, being confined to certain years, acts as a valuable indicator for dating.

NOTES FROM THE BRITISH MUSEUM (NATURAL HISTORY)

From time to time we notice that we are lacking specimens of plants for the herbarium, usually naturalised aliens growing wild in Britain, recently discovered hybrids, and species of critical genera e.g. *Taraxacum*. A list is kept of our desiderata, and we would be glad to send a copy on application to any member who is interested, and who would like to watch out for such plants and collect them for us.

There are a number of possible projects in the British Herbarium which might be of interest to members living in the London area who would like to expand their botanical activities. Possibilities include cataloguing of specialised collections, construction and testing of keys to British plants, and extraction of herbarium records for local flora writers. Especially at the present time, we regret that any such work must be voluntary and unpaid. Age and qualifications are immaterial.

R. J. PANKHURST
Botany Dept.
British Museum (Natural History)
Cromwell Road
London SW7 5BD

NATIONAL MUSEUM OF WALES

In the new Botany in Wales Gallery in the National Museum of Wales there is a circular temporary exhibition table c. 6 ft. in diameter. This is intended primarily

for the use of the Museum Departments but, subject to availability, it may be used by other organizations who would like to stage exhibits of a botanical nature, perhaps in conjunction with special events.

Enquiries should be addressed to:—

The Keeper,
Dept. of Botany,
National Museum of Wales,
Cardiff CF1 3NP.

KINDROGAN FIELD CENTRE

The programme for 1976 includes several courses of interest to members including:—

Mountain and Moorland Ecology	June 9-16	B. S. Brookes
Mountain Flowers	June 16-23	J. G. Roger
Willows (A C.S.S.F. field meeting)	June 23-30	R. D. Meikle
Field Botany	June 30-July 7	Mrs R. Hamilton
Peat and Pollen	July 7-14	J. H. Dickson
Biological Recording	July 21-28	F. H. Perring
Ferns and Related Plants	July 28-August 4	C. N. Page
Highland Wildflowers	August 4-11	To be announced
Field Botany	August 11-18	P. Harrold
Natural History Illustration	August 18-25	R. Banks
Fungi	August 25-September 1	R. Watling
Grasses, Sedges and Rushes	August 25-September 1	A. Copping
Bryophytes	September 29-October 6	B. S. Brookes

B.R.I.S.C. Field-course—Biological Recording: Tutor—Dr F. H. Perring 21-28 July, 1976

This course, at Kindrogan Field Centre, is offered in collaboration with the Biological Recording in Scotland Committee (B.R.I.S.C.).* It is designed for those with some working knowledge of field natural history who wish to acquire an appreciation of the techniques and skills necessary to take part in the various national and local biological recording schemes in order to be able to participate in and/or to promote recording locally. It is intended that the following topics will be among those included:—

- a) Habitat recording—surveys of hedgerow, dry-stone wall, verge and freshwater habitats and general field-by-field surveys.
- b) Site/species recording
- c) National mapping schemes

Further details may be obtained from: The Warden, Kindrogan Field Centre, Enochdhu, Blairgowrie, Perthshire PH10 7PG.

***BIOLOGICAL RECORDING IN SCOTLAND COMMITTEE**

This is a working party which was set up in April 1975 to promote biological recording in Scotland. It does this by encouraging amateur and professional naturalists to become recorders by providing advice for them and promoting training courses on recording techniques and species identification. It is also investigating the practicabilities of establishing record centres in Scotland.

The Committee consists of the following people:—

Mr Ian Bonner, Natural Conservancy Council
 Mr David Heppell, Royal Scottish Museum
 Mr Adam Ritchie, Dundee Museum
 Dr Dietrich Burkel, Glasgow Museum
 Mr Ted Pelham-Clinton, Royal Scottish Museum
 Dr Alastair Sommerville, Scottish Wildlife Trust

Advice on recording can be sought from B.R.I.S.C. who at the same time welcome any views and comments from people.

*Biological Recording in Scotland Committee
 c/o 8 Dublin Street, Edinburgh EH1 3PP

THE COMMITTEE FOR THE STUDY OF THE SCOTTISH FLORA

Soon after the end of the second world war, when it became possible for scientific studies to develop and expand again, a problem became apparent in Scotland in that there were two long established botanical societies with overlapping membership and an interest in Scottish botany. These were the Botanical Society of Edinburgh which was a Scottish National Society and the Botanical Society of the British Isles and its forerunners which had always included Scotland within their sphere of interest. A number of botanists in Scotland, all of whom were members of both societies, felt that the two societies should work in harmony rather than in competition, and the Committee for the Study of the Scottish Flora was set up in 1953 to co-ordinate the activities of the two. Each society appointed an equal number of members of the Committee, Mr B. L. Burt of the Royal Botanic Garden, Edinburgh, became chairman and Mr B. W. Ribbons of the University of Glasgow, Honorary Secretary. The present chairman, Mr R. Mackechnie succeeded Mr Burt in 1958 and Dr Denis Ratcliffe became Honorary Secretary in 1962 to be succeeded by Miss Beattie in 1966. Mr Ribbons resumed the office temporarily in 1969 when Miss Beattie resigned and has since been re-appointed annually.

The Committee is charged to further the study of botany in relation to Scotland, to co-operate with the two societies in arranging meetings in Scotland and to provide a liaison between the two societies and natural history societies and naturalists' trusts in Scotland.

In practice, these objects are carried out mainly by means of two types of activities. Once a year, usually on the first Saturday of November, a meeting is held alternately in Edinburgh and Glasgow. This includes exhibits, a lecture and a show of colour transparencies, all relating to Scottish botany together with an

opportunity for members of the two societies and their friends to meet over tea and supper. For a number of years a second exhibition meeting was held annually in various Scottish towns and cities in conjunction with the local natural history societies. These were dropped when it was regretfully realised that the considerable effort involved in organising these meetings was not producing an adequate return either in additional botanic work, nor in recruiting new members for the two societies. The committee now prefers to provide lectures for local societies as a means of making the work of its parent bodies known.

Field meetings lasting a week, a week-end or a day, are held in all parts of Scotland usually for an exploration of a little-worked area, for the study of a particular group of plants to assist in the preparation or a revision of a flora, or jointly with a local society or group to assist with or stimulate botanical field work. Such meetings are never held for the purpose of conducting members to the localities of rare plants. Members of either of the parent societies and their friends are able to attend any meetings organised by the Committee. Copies of the programme of meetings may be obtained from the Field Meetings Secretary, CSSF, Mr B. S. Brookes, Kindrogan Field Centre, Enochdu, Blairgowrie, Perthshire PH10 7PG.

In addition to field meetings within Scotland, an occasional meeting abroad has been held so that comparisons with the Scottish flora could be studied and the experiences of Scottish botanists widened. Successful foreign meetings have been held in Norway, the Pyrenees, the Tirol (Italy and Austria) and Lapland and in 1976 it is hoped to visit Poland.

Over the past five years the Committee has undertaken a survey of the Flora of mainland Inverness-shire and has had the assistance of many members of both societies. The results are currently being prepared for publication.

The Botanical Society of Edinburgh has recently published its opinion that the CSSF is carrying out its brief. This has been possible over the years only because of the services given so readily by the many members of the two societies who have been members of the Committee and of the willing co-operation received from the officers and councils of the two societies.

B. W. RIBBONS

NATIONAL VEGETATION CLASSIFICATION

Since the work of Sir Arthur Tansley, there has been no attempt to produce a comprehensive and systematic account of the vegetation cover of the British Isles. The need for such an account is great. Accurate descriptions of vegetation and a standardised terminology are basic requirements for a wide range of ecological investigations. Yet the increasing volume of such investigations continues without an overall framework to which results may be referred. Workers in related fields, such as animal ecology, land-use planning and conservation, have no up-to-date synopsis of information in a readily available form. Exchange of information between British and Continental ecologists still remains difficult.

The aim of the National Vegetation Classification is to provide an accurate and comprehensive inventory of vegetation types in the form of a list and description of named and systematically arranged associations. The survey will cover all

natural, semi-natural and major artificial habitats of Great Britain (excluding Northern Ireland). The units will be characterised on floristic criteria from samples collected in the field. Data on selected environmental factors will be used to provide insight into the distribution of the vegetation types and interrelationships between them.

The Classification is a five-year project financed by the Nature Conservancy Council. A Co-ordinating Panel of experienced ecologists, under the chairmanship of Professor C. D. Pigott (Lancaster University) and with Dr D. A. Ratcliffe as Nominated Officer of the NCC, will guide the work. The project is based on four centres under the supervision of Dr A. J. C. Malloch (Lancaster University), Dr H. J. B. Birks (Cambridge University), Dr M. C. F. Proctor (Exeter University) and Dr D. W. Shimwell (Manchester University), each working with a research assistant. Dr J. Rodwell (Lancaster University) is Co-ordinator.

The project will draw upon the impressive resources of ecological research already in existence in this country and elsewhere and hopes for the co-operation of those engaged in current studies. The Co-ordinating Panel is in touch with Professor D. H. Valentine and the Critical Flora Committee of the BSBI and hopes for a valuable exchange of information with them and other bodies sharing an interest in the work.

Further information is available from Dr J. Rodwell, Department of Biological Sciences, The University, Lancaster LA1 4YQ (0524-65201 ext. 4651).

**The Linnean Society of London
and the University of Birmingham**

A joint international symposium on

**THE BIOLOGY AND TAXONOMY
OF THE SOLANACEAE**

to be held at the University of Birmingham

July 13th-17th, 1976

This conference has been organised by Professor J. G. Hawkes and Dr R. N. Lester of the Department of Botany, University of Birmingham. It deals with an interesting and economically important family of food, spice, drug and ornamental plants. Food and spice plants include potato, tomato, egg plant, chili pepper, paprika, golden berry (*Physalis*), tree tomato and a number of tropical fruits. Drug plants include several species of domesticated and wild tobacco, mandrake, belladonna, henbane, *Scopolia*, thorn-apple and tree *Datura* as well as a wide range of hallucinogenic and cortico-steroid producing plants. Amongst the ornamentals may be mentioned such well-known garden plants as *Petunia*, *Salpiglossis*, *Nicotiana*, *Schizanthus*, *Lycium*, *Physalis* and a number of *Solanum* species.

The conference will attempt to draw together materials on taxonomy, phyto-geography, biosystematics, biology, biochemistry, alkaloid chemistry, cytogenetics,

incompatibility, fine structure of hairs and pollen, physiology, origins of domestication and ethnobotany.

The cross-disciplinary links should provide creative interactions between the different fields, leading to further collaboration in the future. Speakers from Britain, continental Europe, North and South America, Asia and Australasia will be taking part.

A symposium volume will be published by Academic Press under the imprint of the Linnean Society of London.

Any member of B.S.B.I. interested in attending the conference would be most welcome. The total inclusive price for the whole conference, including an abstract volume, full board and transport for the duration of the conference, will be in the region of £60. Full details of costs, together with the programme and booking form can be obtained from the Conference Secretary, Mr D. Langley, at the Department of Botany, University of Birmingham, P.O. Box 363, Edgbaston, Birmingham B15 2TT.

STACHYS ANNUA

A single plant of this attractive yellow-flowered labiate appeared in my North Oxford garden last summer, having probably arrived in a bale of peat originating from Scandinavia. The plant is easily distinguished from our native species in the genus by its yellowish flowers and characteristic red blotches on the lower lip. The leaves are long-petioled with crenate-dentate margins. A quick search through the literature and the British gatherings of this species in the Oxford and Kew herbaria revealed that it has been little recorded or collected in this country during the past 35 years, and its considerable rarity makes inclusion in Clapham, Tutin and Warburg and Dandy's, *List of British Vascular Plants* seemingly unjustified. One can only surmise that this is a 'hang-over' from the days of Bentham and Hooker's *Flora* where the plant is described as a weed of cornfields. Indeed, it was at one time so abundant in Kent as to be considered possibly native.

Mr Eric Clement, who has kindly verified the identification, tells me that he has never seen the plant in Britain during his 15 years of botanizing, nor has a record of it ever been sent for inclusion in *Adventive News*. He also points out that Hanson and Mason do not appear to have grown it from bird-seed mixtures, nor is it recorded in K. Müller's *Die Vogelfutterpflanzen* (1950).

A few mature (?) viable seeds are available to any one interested in studying the species further and the specimen illustrated has been deposited in the Druce Herbarium (OXF), Department Botany, Oxford University.

The front page illustration is by Mrs Rosemary Wise who is an official artist at Oxford University, employed jointly in the Departments of Entomology and Forestry. She has attended as artist on two occasions John Carr's Spanish Expeditions and specializes in water-colour flower illustrations.

B. T. STYLES

SOLANUM SARRACHOIDES

S. sarrachoides was described by Sendtner in the *Flora of Brazil* in 1846, and was later split by Bitter (Rep. nov. Spec. Reg. Veg. 11: 208 (1912)) into two taxa, *S. sarrachoides* Sendtn. em. Bitter and *S. nitidibaccatum* Bitter.

S. sarrachoides s.l. has been recorded as an alien in Britain and other European countries; in Britain always as '*S. sarrachoides* Sendtn.' (sometimes with *S. nitidibaccatum* as a synonym e.g. Dandy, L.B.V.P.) and on the continent usually as *S. nitidibaccatum*, with *S. sarrachoides* Sendtn. em. Bitter as a much rarer adventive (e.g. *Flora Nederlandica* 4: 161 (1966)), though there is a specimen at Munich from a site (Rheinwerft bei Krefeld ürdingen, 18 Aug. 1925 Coll. Höpfner) where it has been noted as being established for 20 years. Examination of continental material (at Leiden and Munich) shows that the plant called *S. nitidibaccatum* by continental botanists is identical to our '*sarrachoides* Sendtn.' and that they both match the description of *nitidibaccatum* given by Bitter.

Recently whilst examining British alien *Solanum* in Herb. E. J. Clement I found a plant which matches the rarer continental alien and which I would name *S. sarrachoides* Sendtn. em. Bitter. It was collected (1967) in a locality from which *S. sarrachoides* Sendtn. has been noted since 1927 (Lousley and Kent, *A handlist of the plants of the London area* 4 (1954)) on an ash tip at Dagenham, Essex, where the tip soil is warm or in places smoking. *Salsola pestifer* and *Amaranthus albus* have similarly been known there for many years. It is possible that *S. sarrachoides* Sendtn. em. Bitter is passing unnoticed elsewhere, and records would be welcome. The two taxa may be separated as follows: —

Fls usually 3-4 in each inflorescence, umbellate (i.e. pedicels apparently arising from the same point at the tip of the peduncle); in fruit the accrescent calyx exceeds the berry and the calyx teeth are narrowly triangular (Dagenham and (?) elsewhere). *S. sarrachoides* Sendtn. em. Bitter.

Fls usually (3-) 5-7 in each inflorescence, some pedicels originating below the tip of the peduncle; in fruit, the accrescent calyx does not exceed the berry and the calyx teeth are broadly triangular. *S. nitidibaccatum* Bitter. (The common alien).

Dr J. M. Edmonds who is currently working on *Solanum* sect. *Solanum* (syn. sect. *Maurella*) at Cambridge, tells me that the variation found in S. America is complex and that until experimental work is completed a decision about the taxonomy would be unwise. I have here only followed the precedent set by Bitter and one must await a fuller analysis, although on *alien material* the taxa appear distinct.

A. C. LESLIE

VERBASCUM PYRAMIDATUM

V.c.8, S. Wilts; Larkhill, 20 July 1941, R. C. L. Burges, det. I. K. Ferguson (K).

V.c.17, Surrey; Refuse tip, Whitmoor Common, Guildford, 5 September 1970. A. C. Leslie and E. J. Clement, conf. I. K. Ferguson (Herb. ACL and Herb. EJC).

V.c.29, Cambs.; Waste ground, near Waterbeach aerodrome, 10 July 1958, P. D. Sell, det. ACL (CGE).

The following description should separate it from other alien and native *Verbascum* spp.

Perennial (according to *Flora Europaea* 3), stem c. 1m high. Basal leaves hairy glandular hairs above, simple eglandular and stellate hairs above and below), obovate-oblong 12-40 x 5-15 cm., crenately toothed and weakly lobed, tapering to petiole. Inflorescence much branched with dense stellate hairs and sessile or shortly stalked glands. Flowers solitary in axil of subtending bract, which is usually longer than the pedicel. Corolla yellow, 20-30 mm. across; anthers all reniform, filament hairs purple. A native of the Caucasus region extending west to the Crimea.

This species may be being missed as it superficially resembles *V. chaixii* (both the V.c.17 and V.c.29 material was originally so determined), but the glandular hairs and solitary flowers readily distinguish it. The description in *Flora Europaea* 3:210 (CUP 1974) omits to describe glandular hairs in the panicle, but Dr Ferguson tells me that wild specimens are considerably less glandular.

I would be interested to hear of any other records for this species as an alien, particularly if supported by a specimen.

My thanks are due to Dr Ferguson for his comments on the glands and the details of the Wiltshire specimen.

A. C. LESLIE

ELODEA NUTTALLII

It seems clear from observations made by J. H. Chandler, R. C. Palmer and others, and reported in *Watsonia* 10, 464, that *Elodea nuttallii* is becoming established in ponds and ditches in lowland England. Records already exist for Oxford, Cambs., Hunts., Northants and S. Lincs. Remembering the speed with which *E. canadensis* spread throughout the British Isles in the 19th Century we suggest that members of the BSBI keep a sharp lookout for *E. nuttallii* and report any finds immediately to the Biological Records Centre (on pink Individual Record Cards if you have them please), with a dried specimen.

A key to the Hydrocharitaceae (the family to which it belongs) prepared by Prof. C. D. K. Cook was published in *BSBI Conference Report* No. 15, p. 138, and is reproduced here with permission.

- 1A Leaves spirally arranged (at least at base of stem)
- 2A Leaves stiffly recurved, usually densely packed, up to 2.5 cm long
 - Lagarosiphon major*
- 2B Leaves flaccid, spreading, not densely packed, very rarely more than 1.5 cm long
 - Lagarosiphon muscoides*
- 1B Leaves in whorls or opposite pairs
- 3A Leaves usually reflexed, flaccid, densely packed together, usually exceeding 2 cm in length
 - Egeria densa*
- 3B Leaves spreading, not reflexed, flaccid, rarely densely packed, rarely exceeding 2 cm in length
- 4A Leaves usually in whorls of more than 3 (often 6-8).
- 5A Teeth on margins of leaves distinctly visible to naked eye; whorls of fewer than 8 leaves not frequent
 - Hydrilla verticillata*

- 8B Leaves opposite or in whorls of 3; middle part of leaf rarely more than 1 mm wide; leaf margins straight at apex, gradually tapering to a very fine pointed tip; sepals of female flowers up to 3 mm or more long; styles deeply forked.

Elodea ernstae

Mr Chandler adds that compared with *E. canadensis* the leaves are a paler green, rather narrower, with an *acute tip*. The whole plant has a more diffuse look, the whorls of leaves being further apart. The leaves of *E. canadensis* are rather stiffer and do not collapse so readily when taken out of the water, especially the young leaves at the ends of shoots.

F. H. PERRING

SPECIES DECLINE IN SHROPSHIRE

It is sometimes stated that collection has had a negligible effect as a cause of the loss of plant species from localities where they previously occurred and that destruction of and changes to habitats have been far more significant. While working on the history of the flora of Shropshire (v.c. 40), I have been interested to find a number of relevant references in publications of the late nineteenth and early twentieth centuries, a brief account of which may stimulate botanists in other areas to search their own botanical literature for similar clues.

T. P. Blunt (1912), writing about the flora in a popular guidebook to Church Stretton, earnestly requested "all residents and visitors . . . to do their utmost to discourage the wanton destruction of these minor beauties of Stretton, and especially to abstain from purchasing wild plants of dealers and hawkers, and from carrying them away in quantities. Thirty years ago the beautiful Oak fern was plentiful in the Longmynd valleys. It has now disappeared and many another interesting or beautiful species is in danger of a similar fate."

Alfred Marston (1882) described *Gymnocarpium dryopteris* as a "rather common Fern in this [the Ludlow] Neighbourhood" and mentioned "the sides of the Longmynd hill valleys" as one of the places where it grew "luxuriantly". But his account ends, significantly: "It grows well on rock-work, for which it is very suitable if planted in a cool shady situation." The next species mentioned by him is *Cryptogramma crista*, described as a "scarce Fern and difficult of cultivation", now rare in its "only situation . . . near Ludlow", on the Clee Hills, "being nearly eradicated from the spot by over zealous botanists." Despite this stricture, his preface explains that he will "mention the best places for a collector to visit, who is in search of these interesting plants [ferns], with a few remarks upon their adaptability for rock-work or pot culture", though he did have a twinge of conscience and concluded it with a plea "that those who may collect, will show a little mercy, and not take more than they actually require, as too often, rare plants, are entirely eradicated by over eagerness to possess all that are seen growing."

In the same year, George Davies (1882) wrote that *Osmunda regalis* "used to grow in great beauty and luxuriance" at Ellesmere, but continued: "whether here, as in many other places, it has become extinct through the modern rage for collecting ferns, I cannot say." Marston, meanwhile, finding it in only one locality near Ludlow, was telling his collectors that it still grew "abundantly near

Shawbury" and that "it should occupy the dampest parts of the rock-work". Of the 23 species of ferns he wrote about, the only one he discouraged his readers from growing was *Pteridium aquilinum*, described as "Not suitable for rock-work"!

As far as is known at the beginning of another phase of botanical recording for a new flora of Shropshire, none of the ferns named above (except, of course, bracken!) survives in any of the localities I have mentioned.

Perhaps ferns are a special case. At any rate, William Phillips (1878), referring to his efforts to update the records of the Rev. W. A. Leighton (1841), wrote in his preface: "There are a few instances in which agricultural improvements have destroyed the old habitats . . ." The pace has quickened, but here is a story familiar to botanists of a century later, even in the jargon it is written in! Certainly, the apparent disappearance from the immediate vicinity of Shrewsbury of the following species, all of them recorded by Phillips a century ago, seems attributable to factors such as land drainage and eutrophication rather than to collecting:

Anagallis tenella, *Carex limosa*, *Drosera intermedia*, *D. rotundifolia*, *Eriophorum vaginatum*, *Hydrocharis morsus-ranae*, *Hypericum elodes*, *Isoetes lacustris*, *Littorella uniflora*, *Lobelia dortmanna*, *Luronium natans*, *Narthecium ossifragum*, *Pilularia globulifera*, *Rhynchospora alba*, *Sparganium emersum*, *S. minimum*, *Stellaria palustris*, *Triglochin palustris*, *Utricularia minor*, *U. vulgaris* (or perhaps *australis*) and *Vaccinium oxycoccos*, as well as the famous *Scheuchzeria palustris* (last seen by Bomere Pool in 1881).

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BLUNT, T. P. (1912). Botany, in COBBOLD, E. S., *Church Stretton Illustrated* (4th ed.).

DAVIES, G. (1882). The Meres of Shropshire, in *Anglers' Evenings: Papers by Members of the Manchester Anglers' Association* (2nd series), p. 46.

LEIGHTON, W. A. (1841). *A Flora of Shropshire*. Shrewsbury, John Davies.

MARSTON, A. (1882). *A Guide to the Ferns and many of the Rarer Plants growing round Ludlow*. Ludlow, C. A. Partridge.

PHILLIPS, W. (1878). A List of the Flowering Plants and Ferns within a radius of five miles round Shrewsbury, in PHILLIPS, W., ed. *A Guide to the Botany, Ornithology and Geology of Shrewsbury and its Vicinity*. Shrewsbury, Bunny and Davies.

P. H. OSWALD

BOOK NOTES

The July part of *Watsonia*, Vol. 11 (2), will contain reviews of the following books:---

The History of the British Flora (ed. 2), by Sir H. Godwin.

Dictionary of Cultivated Plants and their Centres of Diversity, by A. C. Zeven and P. M. Zhukovsky.

Wild Flowers of the Channel Islands, by J. Bichard and D. McClintock.

Water Plants of the World, by C. D. K. Cook.

Ray's Flora of Cambridgeshire, by A. H. Ewen and C. T. Prime.

Flora of Essex, by S. T. Jermyn.

The Historical Flora of Middlesex, by D. H. Kent.

British Botanical and Horticultural Literature before 1800, by Blanche Henrey.

Index Holmensis, Vols. 1-3, edited by H. Tralau.

Plant Chromosomes, by A. and D. Löve.

Supplement to the Flora of Wiltshire, by L. F. Stearn.

Det Grønne Grønland, by T. Böcher.

Vegetace CSSR, Nos. 6-7, by K. Rybnicek and E. Rybnickova.

The above list must contain something for everybody. History figures largely in it, with Sir Harry Godwin's revised account of Britain's flora in the past, Douglas Kent's detailed treatment of the past (and present) flora of Middlesex and Blanche Henrey's masterly work on early British botanical and historical publications. Ray's *Flora of Cambridgeshire*, our earliest County Flora, started a tradition which is being carried on today with increasing enthusiasm and expertise, and the *Flora of Essex* and *Supplement to the Flora of Wiltshire* are both worthy additions to the list of County Floras.

The following books have been received recently; those which will *not* be reviewed in *Watsonia* are marked by an asterisk: —

Paleobiology of Angiosperm Origins, by N. F. Hughes.

Flora van Nederland geillustreerd, by H. Heukels; 18th edition, revised by S. J. van Ooststroom.

The Flora of Lincolnshire, by E. Joan Gibbons.

Biological Identification with Computers, edited by R. J. Pankhurst.

Hayley Wood: Its History and Ecology, by O. Rackham.

Bibliographia Botanica Cechoslovaca 1969-70, by Z. Neuhäuslová-Novotná, O. Winkler and D. Khaylová.

**From Single Cells to Plants*, by E. Thomas and M. R. Davey. Wykeham Publications (London) Ltd., London and Winchester. 1975. £2.50. This account of plant-tissue culture is intended for use at university or college level.

The Development and Function of Roots, edited by J. G. Torrey and D. T. Clarkson.

Finally, I should like to correct an editorial error in the *Watsonia* 11 (1) Book Reviews. The U.K. Distributors of *How to Know Western Australian Wildflowers* are: — The Richmond Publishing Co. Ltd., Orchard Road, Richmond, Surrey TW9 4PD.

N. K. B. ROBSON

A RAILWAY FLORA OF TEVIOTDALE

by M. E. BRAITHWAITE M.A., A.C.A.

A 48 page book with maps and illustrations covering a survey made in 1975 with support of local officers of the Nature Conservancy, Scottish Wildlife Trust and the Botanical Society of the British Isles.

The now disused Waverley Line between Carlisle and Edinburgh passes through some of the best of the Border country. The wild flowers of this railway line include colourful and unusual species such as the orchid, Twayblade, shown on the cover.

The vegetation of a twenty-mile stretch of this railway centred on Hawick is described and illustrated with the emphasis on ecology but in the layman's language of an amateur botanist. Particular areas of interest are described in more detail.

English names for the flowers are used throughout, but the scientific Latin names are also given in a separate section with a detailed list of all the species recorded in 1975.

Copies are available to members at the cost of £1 from M. E. Braithwaite, Haughton Castle, Hexham, Northumberland NE46 4AY or M. E. Braithwaite, John J. Welch & Co. C.A., 19 Buccleugh Street, Hawick, Roxburghshire TD9 0HL.

Members of the subscribing Societies, The Botanical Society of Edinburgh and the Northumbria Natural History Society can obtain copies at the privilege price of 50p.

PHOTOGRAPHING NATURE

A series of practical guides on specific topics of wildlife photography. Each book which is illustrated with 24 pages of colour and over 30 black and white photographs, is full of practical tips for taking better pictures. There is also an equipment check list, a photographic glossary and a selected bibliography. Three titles will be of particular interest to BSBI members: *Trees*, at £1.50; *Fungi*, and *Flowers*, both at £1.75.

Copies are available **post free** direct from the author—Heather Angel, Sunset Cottage, Clovelly Road, Hindhead, Surrey GU26 6RT.

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ATLAS FLORAE EUROPAEAE

In BSBI News No. 10 I offered to make a bulk order for future volumes of *Atlas Flora Europaeae* to obtain them at a reduced price if enough members would place a standing order. Unfortunately the response has not been good enough to make the idea worthwhile pursuing for the Society. I have forwarded the orders received (25) to Tieto Ltd., 5 Eldon Road, Clevedon, Bristol from whom all those who ordered through me should be receiving Vol. III later this year. The price of volume III will be £9·00, for vols. I and II £5·00 and £2·00 respectively.

F. H. PERRING

NEW RPS GROUP

Yet another new Group has been launched by The Royal Photographic Society—a Nature Group. There are now eleven specialist RPS Groups, each of which is an integral part of the Society and caters for a particular aspect of photography. Five of the Groups—Historical, Education, Archaeological, Aerial and now Nature—have been formed within the last few years.

The aims of the Nature Group were outlined at a well-attended inaugural meeting held at the Society's House on Thursday, January 29th 1976. In her capacity as the elected chairman of the Group, Heather Angel, MSc, FIIP, FRPS, well-known as the author of a number of books on nature photography, said that the Group was intended to bring together naturalists, biologists, etc., and those photographers with a natural history interest. Because nature photography was

essentially an outdoor occupation practical field seminars would be an important part of the Group's programme.

Group activities envisaged for both London and the nine RPS regions include:

Evening lectures.

Evening and all-day workshops linked to projected field trips.

Weekend field trips in many different localities.

Visits to nature trails, museums, etc.

A regular Group newsletter (particularly bearing in mind overseas members) to include items of new pieces of equipment, book reviews, reports of lectures, etc.)

Circulating portfolios of slides and prints.

Exhibitions of Nature photography.

Sessions devoted to giving guidance to those contemplating applying for the RPS Associateship in nature photography.

The RPS has among its members experts in almost every aspect of photography; authorities in their respective subjects. It is proposed to use this expertise to the full so that the naturalist in the field has at his disposal the ability to produce the high standard of photography his work deserves and to have it preserved for future generations.

Membership of the Group is open to all who are interested in nature photography and a note to the RPS Secretary at 14 South Audley Street, W1Y 5DP will bring full details.

HYBRIDIZATION AND THE FLORA OF THE BRITISH ISLES

Ed. C. A. STACE

Members may purchase one copy at a privilege price of £8.00. Any member who has not received an application form to purchase a copy at the members' price please contact Mrs Mary Briggs, White Cottage, Slinford, Horsham, Sussex RH13 7UG.

NEW COUNTY RECORDERS

At its meeting on February 10th, 1976, the Records Committee made the following appointments:—

VC 17 Surrey

Dr C. T. Prime

VC 36 Hereford

Mrs S. Thomson

VC 40 Salop

I. C. Trueman

Vacancies now exist in the Isles of Scilly and Cardigan which the Committee hopes to fill shortly. Changes in the Isles of Scilly and Surrey were necessary following the sad death of Ted Lousley, but the change in Hereford only occurs because Mrs Whitehead feels that she should give way to a younger botanist. However, her long and invaluable service to the Society ends with an appropriate flourish; the Flora she has been working on for so long will appear this spring.

LETTERS

GERANIUM SYLVATICUM IN IRELAND

10 November 1975

Dear Sir,

I read Mr Nodder's letter on the dubious nativity of *Arbutus unedo* and *Geranium pratense* in Ireland with interest (BSBI News Sept. 1975 p. 18).

In his letter your correspondent cast some doubt on the status of *Geranium sylvaticum* in its Co Antrim stations by suggesting that this species occurs only in the vicinity of Glenarm Castle. This, however, is not strictly true.

The species has been recorded from various stations along the basalt scarp as far south of Glenarm as the Carncastle area, some 16km to the south-east. (See 2nd edition of Stewart & Correy's 'Flora of N.E. Ireland', ed. R. Ll. Praeger, 1938 p. 42). Glenarm in fact forms the northern limit of the plant's known Irish distribution, and is not the centre of that distribution as Mr Nodder's letter tends to suggest.

Not only that, but in at least some of its stations the plant gives no appearance of being introduced, although appearances are not reliable evidence, of course.

Richard Hanna collected the plant in 1898 from cliffs to the north of Sallagh Braes (near Carncastle)—a rather wild region, and I have seen the plant in native hazel woods growing high up on the Antrim coastal escarpment below basalt cliffs—again a wild and somewhat inaccessible situation. These habitats are not suggestive of it being an introduced species. I think it more probable that it is a relict species, one of whose native habitats was the hazel woods, formerly more widespread, below the cliffs of the Antrim basalt scarp which stretches all along the coast of the county. In Glenarm the plant inhabits the woods and thickets of the glen.

A final point: the Antrim coastal area immediately to the north of Glenarm is well-known as a centre where many species of "Scottish" distribution have one of their few stations in Ireland. E.g. Oak fern, *Gymnocarpium dryopteris* occurs above Carnlough about 10km N.W. of Glenarm; *Eriophorum latifolium* occurs in the same area; *Saxifraga hirculus* occurs on the Garron Plateau about 14km from Glenarm; *Carex pauciflora* and *C. dioica* also occur on the Garron Plateau.

Viewed in this context, *Geranium sylvaticum* simply becomes one more of this group of species from the Glenarm area whose main centres of distribution in the British Isles are in northern Great Britain.

Yours faithfully,

P. Hackney (Assistant Keeper—Botany)

The Manx Museum,
Douglas,
Isle of Man

15 January, 1976

The Editor, B.S.B.I. News

ARBUTUS FRUIT

Dear Sir,

With reference to the discussion on the palatability of this fruit. Paper pokes of *Arbutus* fruit are still sold in the streets of Athens and offered, together with a

wide selection of seeds and nuts, at cinemas in more rural areas of Greece. It comes when few other *small* fresh fruits are available.

Possibly the fruit is of the Greek species but I found the faintly sweet flavour and rather soft texture the same as fruits from a large *A. unedo* in Somerset. In the Isle of Man the fruits [even this year] are usually too small and dry to be worth eating.

Is it possible that Pliny was drawing a distinction between *A. andrachne* and *A. unedo*?

Yours sincerely,
Larch S. Garrad, Assistant Keeper

Odelville,
Ballingarry,
Co. Limerick

4 December, 1975

NATIVE OR INTRODUCED?

Dear Sir,

I was interested to read in your *BSBI News* of September that *Geranium pratense* was only found in Ireland near the north coast except as an escape. I have watched it growing on a bank at New Castle West since my childhood. There is no large house nearby. Nor have I seen it in local gardens. Of late years it has greatly decreased because it has been dug up to set in new rockeries. I feel a great many plants haven't been recorded in this area. *Colchicum autumnale* grows abundantly in a field near here. The wild variety. No house or remains of a house nearby. On the banks of the Shannon there is a lovely patch of *Leucojum aestivum*. It is not also very likely to be an escape as it is growing as abundantly as it did in Lloyd Praeger's day. Most of the orchids grow quite near including *Ophrys insectifera* and *Epipactis palustris*. I am sure if I wasn't such a beginner, I would know of a number of other plants equally interesting. Probably other people better qualified than I do know, but I wonder if there are any records of them?

Yours sincerely,
Helen L. Allott

CONSERVE THE VASCULUM!

Ray probably had one, Dillenius and Martyn certainly. Linnaeus provided the first description and Smith the earliest undoubted illustration. By 1800 they were a standard botanical means of recognition. One presented to the elder Hooker in the 1820s is now used as a biscuit-barrel by descendants of his in Ireland. Darwin's is treasured in a cupboard at Burlington House.

The vasculum is a living antique and must not be allowed to die out.

Luckily, a few of us still use one in preference to the anonymous vulgarity of plastic bags. For the non car-dependent, indeed, there is still no adequate substitute: for what else can also keep one's lunch fresh and double up as a seat? (Mrs Briggs has recently discovered a last-century botanist who brewed coffee in his).

Contrary to general belief vascula are still being made and sold commercially. Two alternative sizes are available for purchase by individuals (apart from colleges and schools) from Griffin Biological Laboratories (formerly T. Gerrard & Co. and Gerrard & Haig Ltd.), Gerrard House, Worthing Road, East Preston, Sussex BN16 1A5. Enquirers should indicate that they are BSBI members and a price (currently fluid) will be quoted.

Alternatively, there must surely be quite a number of ex-vasculum users who are willing to pass theirs on? If they would let the Honorary General Secretary know, the Society would have little trouble in finding ready takers. Perhaps, even, a vasculum pool could be operated, if numbers warranted it. If, in addition, the names of successive owners were inscribed on each one, a collection of these implements could be built up of historical value in more senses than one.

D. E. ALLEN

ALIEN, IMMIGRANT OR ADVENTIVE?

In August 1974 the Gloucestershire Naturalists' Society held a field meeting at Sharpness Docks and a brief account of the visit appeared in the local press.

The next morning the telephone rang. "Gloucester Information Services here. Are you the Gloucestershire *Naturalists' Society*?"

"Well, I'm the Editor."

"Could you please tell us if it was *your* Society that went to Sharpness Docks on Saturday and reported seeing aliens on the dockside?" The voice sounded decidedly perplexed.

"That is so."

"And suggested that these aliens could have arrived on a grain ship?"

With an effort I managed to remain dead-pan and helpful "That's right . . . aliens generally come into this country on that type of ship."

The voice was now eager—on to something tangible. "Ah, this really is news; we *have* got onto the right person; could you kindly elaborate on this extremely interesting occurrence at Sharpness . . ." (hotting up, the questions came fast) ". . . how many aliens embarked from the ship? What was their country of origin? and . . ." (the caller now sounded really bewildered ". . . would you please be kind enough to explain why the *botanical* section of a Natural History Society should travel all the way to Sharpness Docks to see these people and be so interested in aliens?")

SONYA C. HOLLAND

ADVENTIVES

Newport (Gwent) Docks 1972-75

The Docks, on the west bank of the River Usk, provide a diverse and scattered habitat to many plants that occur nowhere else in the county, or are Welsh rarities or of limited distribution in the British Isles. The habitat owes its origins

to the estuarine marshes and the activity of the British Docks Board, which has built up and levelled it with a range of ballast, including large quantities of ashes and rubble.

Railway ballast, including ashes, provides the well-drained medium favoured by numerous plants such as *Filago minima*, *Chaenorrhinum minus*, *Linaria repens*, *Conyza canadensis*, *Trifolium arvense*, *Vulpia bromoides*, *V. myuros* and with its greyish (due to hairs), lobed leaves and pale yellow flowers, *Hirschfeldia incana*, which has spread on the freshly dumped soil heaps, to become the commonest yellow crucifer. By the side of railway tracks *Orobanche minor* var. *lutea* occurs with its hosts (*Trifolium* sp.) for the four years I've visited the area. Over 150 flowering spikes of this pure yellow parasite are concentrated in a strip circa 40 metres long and beside a large overgrown heap of sand covered with *Ammophila arenaria*. Another railway site supports two undetermined *Hieracium* sp., *Sagina maritima*, and *Rhynchosinapis cheiranthos*, a tall, yellow-flowered crucifer. *Achillea ligustica* has "surprisingly persisted well" (EJC) since the forties. Its more divided leaves and greenish flowers appear earlier in the year than its relative, common yarrow. *Barbarea verna* flowered in early summer, last year, on a load of ashes of a few months standing. Its deep yellow flowers were borne on stems up to 20cm. high. The scattered *B. vulgaris* bloomed later.

One very large area consisting of soil heaps and water-filled hollows in 1973, since levelled, was rich in such plants as *Reseda luteola*, *Lepidium campestre*, *L. latifolium*, *L. ruderale*, *Camelina sativa*, *Buddleia davidii*, *Pastinaca sativa* and *Scrophularia scorodonia*, with its broadly triangular leaves and broadly serrated margins. This Channel Isles figwort has survived in marginal sites, whereas *Cochlearia officinalis*, the uncommon scurvy grass on the Severn Estuary, was obliterated by the bulldozer.

In one small marshy area, almost surrounded by concrete, is the only (?) Gwent site of *Scirpus lacustris*, taller and greener than *S. tabernaemontani*, that grows in small quantity in some reens, that drain the estuarine lowlands.

Undoubtedly, the most delightful area and the one that will constitute the greatest loss when the impending development of Newport as a Europort takes place, is a modified marsh remnant, lying to the south of a huge imported wood stack. On old maps it was a marsh lying between the R. Ebbw and R. Usk, but with the advent of dock development, it has boiler ash dumped to make tracks for transport of materials and for storage of coal. The untouched part of many hectares is a phragmites marsh, a haunt of marsh and reed warblers, reed buntings and cuckoos. The several hectares of modified surface bears a range of rarities, among willows of various species. To rival Braunton Burrows, there are hundreds of the densely tufted sedge *Holoschoenus vulgaris*. Standing over a metre in height, the stems are surmounted by spherical heads, sessile or on short peduncles and subtended by 1-2 long, green bracts, the longer seeming to be an extension of the stem. Other sedges present include *Carex distans* (now rare in VC 35), *C. arenaria*, like *Ammophila* unusual as there are no sand dunes in Gwent, *Cyperus longus* and a few scattered, less tall adventives of *C. eragrostis* with pale green spikelets. The latter re-appears each year in August. *Juncus tenuis*, common in the docks until the marshy areas were filled in, still finds refuge here, and is also spreading on Gwent coal tips. *Juncus subnodulosus* is also uncommon in Gwent. *Lactuca*

serriola is widespread on spoil heaps on the margins of the marsh. In 1973 a solitary *L. virosa*, with lobed leaves having appressed auricles and blackish ripe achenes, flowered in sight of a woody bush of *Scrophularia canina*, growing on a long, narrow bank of boiler ash. The only previous record of the latter was in 1920 when it was recorded in Barry Docks. The short pinnatifid leaves and tiny dark purplish flowers gave a slender appearance to the upright stems. *Lotus tenuis* is also much more slender than its two commoner relatives that share this habitat.

Ranunculus baudotii, *Samolus valerandi*, *Alisma plantago-aquatica* and *Typha latifolia* share a wet area and slightly drier regions are shared by *Anaphalis margaritacea*, *Verbascum thapsus* and *V. nigrum*, that does not seem to favour Gwent's carboniferous limestone as it does the Cotswold oolitic limestone. *Anthyllis vulneraria*, *Vicia hirsuta*, *V. tetrasperma*, *Lathyrus sylvestris* also occur and on the periphery, *Polygonum cuspidatum*. Another persistent adventive of many years standing is *Trifolium resupinatum* of Asian origin, a clover with bright pink blossoms forming globes of little over 10 mm. in diameter. Twists in the pedicels result in the standards lying below the keels. In fruit the calices enlarge to form pale, straw-coloured balls.

Another marsh not yet built up is the home of *Oenanthe lachenalli*, *O. crocata*, and *Senecio aquatica*, while a bank that serves as sea wall bears two contrasting umbellifers *Conium maculatum* and *Torilis nodosa*.

Finally, the fluffy heads of the grass *Polygona monspeliensis* have re-appeared each year on the edge of a pool containing *Eleocharis palustris*, *Typha latifolia* and *Ranunculus baudotii*. It is the place where workmen have decided to burn all rubbish so wood ashes, rusting metal binding strips and partially burnt wood form an unsavoury background to an attractive alien. My thanks are extended to the following referees:— Dr C. E. Hubbard, Mr G. A. Matthews, Mr R. D. Meikle, Mr David Hambler.

T. G. EVANS

SUMMER HOLIDAYS AND SEASIDE BOTANISING

To all members who are going to the seaside this summer! I am undertaking a study, with Prof. D. H. Valentine, of the *Limonium binervosum* group (the rock sea lavenders) and I would like to obtain seeds and herbarium specimens from British and Continental populations.

I would be very grateful to any member who could help with collecting this material—ecological notes would also be welcome too. I would be happy to answer any queries and, of course, postage will be refunded.

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STOP PRESS**JOINT MEETING WITH THE FRESHWATER
BIOLOGICAL ASSOCIATION**

This meeting, announced in our Field Meetings Programme and Calendar for October 9th and 10th 1976 at Lake Windermere, has of necessity been postponed. We have however every hope that the meeting will be arranged for new dates in 1977, and the programme will be announced in due course.

MARY BRIGGS *Hon. Gen. Sec.*

LEADERS OF FIELD MEETINGS

To all leaders of field meetings during 1975, please send reports for *Watsonia* to Dr. G. Haliday, Department of Botany, University of Lancaster, as soon as possible.

EDITOR'S CHANGE OF ADDRESS

After May 31, please send all correspondence and articles for *News* to me at: Glebe Cottage, Flempton Road, West Stow, Bury St. Edmunds, Suffolk.

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