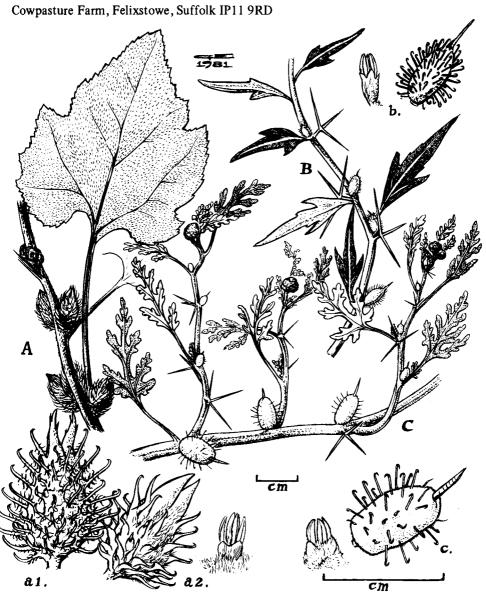
B.S.B.I. NEWS

Edited by EDGAR D. WIGGINS



- A. Xanthium strumarium L. aggr.
- B. Xanthium spinosum L.
- C. Xanthium ambrosioides Hook & Arn.

G.M.S. Easy, © Sept 1981

Cockleburrs (Xanthium) (see p. 13)

ADMINISTRATION

HON. GEN. SEC. (General Enquiries)

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

HON, TREASURER. (Payment of Subscriptions and change of address).

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

(Please quote membership number on correspondence concerning membership or subscriptions).

HON, FIELD SEC.

(Information on Rare Plants, Field Meetings etc.)

Miss L. Farrell, N.C.C. P.O. Box 6, Godwin House, George Street, HUNTINGDON PE18 6BU.

NOTICE TO MEMBERS

Nominations for vacancies on Council, in writing, signed by two members of the Society and accompanied by the written consent of the candidate to serve, if elected, should be sent to the Hon. General Secretary, White Cottage, Slinfold, Horsham, West Sussex, to arrive BEFORE FEBRUARY 1st 1982.

Mary Briggs, Hon. Gen. Sec.

MEMBERSHIP LIST

Thanks to members who replied to the enquiry on the Membership List (BSBI News 27 p. 2). Totalling the replies, adding those members who voted in person at the AGM, also adding members of Council and Committees — for whom a list is of course essential — and allowing a few extra for those members who intended to send a P.C. but did not actually do so, we have finally a maximum of 10% of our total membership opting for the Membership List. It is proposed to produce a list as cheaply as possible to cover these requirements, and this will be offered to members at a nominal sum to cover costs. Meanwhile a booklet listing the addresses of Officers, Committee Secretaries, vice-county Recorders and Referees and Specialists will be published and distributed to all members — if possible with this mailing (or with the next mailing in April).

CHANGES OF V.C. RECORDERS

DR R.E. THOMAS vacates WEST PERTH (v.c. 87) but takes over MID-PERTH (v.c. 88) MRS J. CLARKE takes over responsibility for the whole of MID-EBUDES including Mull (v.c. 103).

David McCosh, Secy. Records Comm.

BSBI NEWS 30

Contributions intended for publication in this issue must reach the Editor

BEFORE 10th FEBRUARY, 1982.

MAILINGS

To enable members to check their receipt of mailings, the current BSBI mailings schedule, and from where posted, is as follows:-

1. Late December/early January Field Meetings Programme.

Calendar, December BSBI News (Horsham)

2. January or February Watsonia (Birkenhead)

3. April Annual Report BSBI News etc. (Horsham)

4. July or August Watsonia, BSBI Abstracts (Birkenhead)

5. September Exhibition Notices, BSBI News etc. (Horsham)

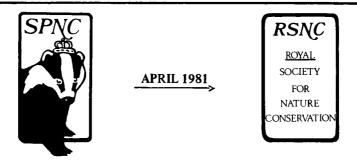
While we cannot promise to keep exactly to this time-table (many are the possible delays through the assembling, printing and/or posting), this schedule may taken as a general guide.

Members who fail to receive a mailing should notify the Treasurer, BSBI, to whom all changes of address should also be sent, if possible quoting membership number.

68 Outwoods Road, Loughborough, Leics, LE11 3LY.

A point to be remembered is that addressed labels are sent out from the membership office several weeks before a mailing is despatched. If a change of address is received after the labels have been sent to the printers, then that mailing will be delivered to the old address, although the new address will then be on the Treasurer's updated list of members. Members are sometimes puzzled by this apparent lack of communication if a mailing is wrongly addressed just after a notification of changed address has been sent in.

Another point which can cause confusion is the offer of books at a pre-publication price. These offers are sent out in *advance* of publication (and are made possible by the guaranteed sales and advance payments which enable the publisher to offer at a reduced price). Delays in publication are not infrequent, and members may then be worried by the non-delivery of the book. We hope to clarify future notices of these offers by ensuring that the anticipated publication date is stated, and by announcing any unexpected delays in the following issue of *BSBI News*.



A reminder that in April 1981 the SPNC received a Royal Charter to become the Royal Society for Nature Conservation. This version of the SPNC emblem 'stepping forward' to their new title of RSNC was drawn by C.E.R. Coleman, Warden Sussex Trust for Nature Conservation and it is reproduced by kind permission of the STNC from their Newsletter No. 74 Spring 1981.

M.B.

HON. GEN. SECRETARY'S NOTES

Welcome

We are pleased to welcome David McCosh as the new Secretary of BSBI Records Committee, and wish him well in this new office.

At the same time we send our most grateful thanks to the retiring secretary Dr Franklyn Perring, who has served this Committee well since 1958 (when it was the Maps Committee, the precursor of the present Records Committee). At this time FHP, with Dr Max Walters (referred to at the Celebration Dinner as the "Max Factor") achieved the major project of organising the recording for, and publishing, the Atlas of the British Flora in 1962. This Atlas not only pioneered dot-map recording and set the pattern for the production of similar Atlases for many other biological groups, but also significantly alerted us to the diminishing species. This in turn led to the special recording of 300 selected rarest British plants, which made possible the publication of the British Red Data Book, Vascular Plants 1977, with Lynne Farrell as co-author.

FHP, once described as "the man with a new idea every week — or sometimes more frequently" — has guided the Society through many recording projects and the BSBI has on very many occasions benefitted from Franklyn's ideas and his enthusiasm in implementing these. I would add personally my thanks for the practical help given to the Society on many projects. We shall miss his quips and puns but we shall not lose touch with FHP as the Perring family distributes BSBI Publications from Oundle Lodge and we wish him well with his newer responsibilities with RSNC.

Congratulations

We send our best wishes to Ann Farrer and congratulations to Tony Schilling, Deputy Curator, Royal Botanic Gardens, Kew, at Wakehurst Place, Ardingly, Sussex, on their marriage in October. Their honeymoon was spent retracing the route of Sir Joseph Hooker in E. Nepal, the Himalaya being a part of the world which they both know and love well. Mrs Schilling, who is better known to BSBI members under the name of Ann Davies, through her beautiful illustrations in the BSBI Handbooks *Umbellifers of the British Isles* and *Docks and Knotweeds of the British Isles*, tells me that in future she will publish her botanical drawings under her maiden name of Ann Farrer. As Ann is the great-niece of the famous plantsman Reginald Farrer, she and Tony have decided to preserve this botanical link in her work as a botanical artist.

Other members who may be fortunate in having the opportunity to go to the Himalaya will be interested in these recent publications by BSBI members; Dr K.M. Matthew S.J. of the Rapinat Herbarium, St. Joseph's College, Tiruchirapalli, *The Flowering Plants of Kurseong*. This annotated check list, the results of an exploration of the Kurseong subdivision of the Darjeeling district, West Bengal India, will be invaluable to any members travelling to that region of the Eastern Himalaya; Roy Lancaster has written an account of his travels in *Plant Hunting in Nepal*, and the publication is now anticipated of *Flowers of the Himalaya* by Oleg Polunin and Adam Stainton, in which all the drawings are by Ann Farrer — Ann accompanied one of Oleg's Himalayan expeditions as botanical artist.

Pause for gratitude

The Keeper of Botany, British Museum has a poster in his office which reads

HAVE YOU THANKED A GREEN PLANT TODAY?

In the running of this Society very much work is given by members, in office, on committees, organising or leading meetings, identifying specimens, generally advising on plants, mailing book orders and typing. The Editors of our Journals, Abstracts and the BSBI News, the authors of BSBI Handbooks and other publications, all donate their services to the Society. It is not always appreciated how much time and work this involves. Possibly members should occasionally think:

HAVE I THANKED A BSBI VOLUNTARY WORKER TODAY?

Propagation of Sorbus torminalis

A number of members have mentioned difficulties with germination of *Sorbus torminalis* and Dr Hugh McAllister has kindly sent the following note:

"When shed in the autumn the seeds are dormant and require cold treatment before they can germinate. If only a few seeds are available, these should first be cleaned from the fruits, then placed on moist blotting (or filter) paper in a covered dish in a refrigerator $(0-5^{\circ} \text{ C})$ and kept there until every viable seed has germinated — but carefully removing with forceps any young seedlings. (The seeds must be kept moist and should be out of the 'fridge for the minimum time only — the cold must be continuous, any seeds allowed to warm up during the pricking out of already germinated seedlings are likely to become fully dormant again requiring a further 3 months cold.)

If a large number of seeds are available it could be simplest to sow in autumn for spring germination". Hugh has not tried this latter himself with S. torminalis but tells us that it is effective with other species of Sorbus so should give a reasonable crop of seedlings? During the S. torminalis survey the absence of seedlings in some areas was conspicuous. In Kent and Sussex in almost every case the young saplings first thought to be seedlings proved on more careful investigation to be derived from suckers. Hugh reports also that following the transplanting of 5' high S. torminalis and derived apomictic microspecies such as S. devoniensis, broken roots remaining in the original site will usually produce shoots, suggesting that root cuttings might be an effective means of propagation.

Gillian Barter noted very few *viable* seeds in gatherings of S. torminalis fruits from East Kent in 1980 — only a small proportion of the seeds were fully formed and of these only one germinated.

Reduced viable seed production in *Sorbus torminalis* can be caused by a seed wasp *Torymus druparum*, which is known to infest the seeds of several *Sorbus* species (and is also found in apples). I am grateful to Gillian for drawing my attention to a report on this by Dr T.G. Winter: *A seed wasp affecting the Wild Service Tree.* (S. torminalis), published by DOE Arboricultural Advisory and Information Service: Arboriculture Research Note 3/78/ENT Sept 1978. Since the writing of his paper, Dr Winter suggests that the seed wasp is not the only cause of poor germination rates in the wild.

Mary Briggs

A million species are likely to be extinct twenty years from now

The Dijon Ecologies Colloquies, organised in conjunction with the Council of Europe, revealed the gravity of the escalating damage being done to most of the natural environments in our biosphere. This dramatic process is due to the incoherency of the various development policies, usually inspired by the pursuit of quick profits. A different outlook, living things first, respect for minorities, conscientious and responsible management of natural resources were the conclusions reached by over a hundred experts from seven European countries.

Good Luck down under

Our good wishes go with Arthur E. Wade who has recently emigrated to New Zealand. Now an Honorary Member of this Society, he has been a member since 1915. Author of the Flora of Monmouthshire and for many years Recorder for all the Welsh vice-counties until local recorders were found, Mr Wade has been one of our Referees for Symphytum and Myosotis and is also an eminent lichenologist. In sending warm thanks to Arthur Wade for his valuable contribution to this Society through the years we send him also, good wishes from his many friends and the hope that he has embarked on a most rewarding new life in his new home 'down under'. His new address now is:-

A.E. WADE, 281 Malfroy Road, ROTORUA, New Zealand.

Postbag

Thanks to the member who wrote to the Editor saying how much she enjoyed BSBI News and that she has "learnt so much through her membership" — very pleasing for us to hear. A special greeting also to the new member who, on joining, described himself as a "cheerful ignoramus", we hope that he, too, will find his membership interesting, enjoyable and rewarding.

The Hon. Gen. Sec. receives assorted requests. Included recently was one from Canada asking for a pressed specimen of *Bryonia dioica* for the bedroom of a baby daughter christened Bryony Louise.

Ceres Esplan supplied a spray of White Bryony from her chalk downland village of Amberley, Sussex; this was pressed and passed on to Christopher Chua who then created a picture which was well received in Canada.

Another request from the Coastal Forces Association asked us to trace Lt. John Saunders of the Royal Navy who was skipper of MTB 385 during the last war. Dr Norman Robson knew Jack Saunders as a fellow student in Aberdeen who after graduation went to Khartoum to work for the Empire Cotton Board as a cytologist, then to Uganda. We have not yet traced his present whereabouts.

We were however able to offer an Oleander from Mrs E.C.M. Williamson and an Umbrella Plant from Mrs Jeanette Kinsella to Alexandra Palace Palm Court in response to their recent request for palms or similar sized plants (BSBI News 28 p. 21).

Colour Photography

The accuracy of the colour reproduction of plant photographs is continually controversial. I was surprised by criticism of "wrong colour" referring to the dust jacket illustration of Cypripedium on David Lang's Field Guide to the Orchids of Britain. Surely the colour is correct for an 'against the light' view when the sepals are totally different in colour from that as seen from above? Possibly the difficulties are partly due to the reproduction being flat on a page compared to the different angles from which actual growing flowers are seen — and the colour must be partly in the eye of the beholder? I am reminded of a photographer who was particularly anxious to record the exact colour of Eritrichium nanum flowers so brought an RHS colour guide for instant shade identification — but we were unable to find a precise match among the many offered blues; flowers growing at varied angles on the 'cushion' or of different age, showed as different shades of blue!

Marine Reserves

Our thanks to members who wrote to MP's in support of these reserves in response to the request in *BSBI News*. The Government did grant this important concession and some marine areas, seriously in need of legal protection, will now be designated as Reserves.

Suggestions for staccato botanical replies (see BSBI News 28 p.5), have come from Mary McCallum Webster: "Mind your ***** feet" (which Mary suggests should cover most requests?), and from John Norman: "Refer C.T.W."

Mary Briggs

CATCOTT HEATH APPEAL - BSBI News No. 26).

Members will be glad to know that the above appeal reached its target of £18,000 within the year, and that the Somerset Trust can now buy this important wetland. The B.S.B.I. contributed a substantial amount towards the appeal — congratulations everyone! FLORENCE GRAVESTOCK, 8 Cranleigh Gardens, Stoke Bishop, BRISTOL BS9 1HD.

BRITISH LIBRARY (LENDING DIVISION)

The very informative article on the above, which appeared in the last edition of BSBI News (No. 28, p. 28) was contributed by Mr Graham P. Cornish, the Library's Special Projects Officer who tells us he will be quite pleased to receive enquiries from BSBI members, which he will either deal with personally or pass them on to the appropriate officer for action. His address:

G.P. CORNISH, British Library (Lending Division), Boston Spa, WETHERBY, W. Yorks, LS23 7BQ. (Tel: (0937) 843434).

BSBI NEWS 30

Contributions intended for publication in this issue must reach the Editor

BEFORE 10th FEBRUARY, 1982

ALIENS and ADVENTIVES

ADVENTIVE NEWS 21

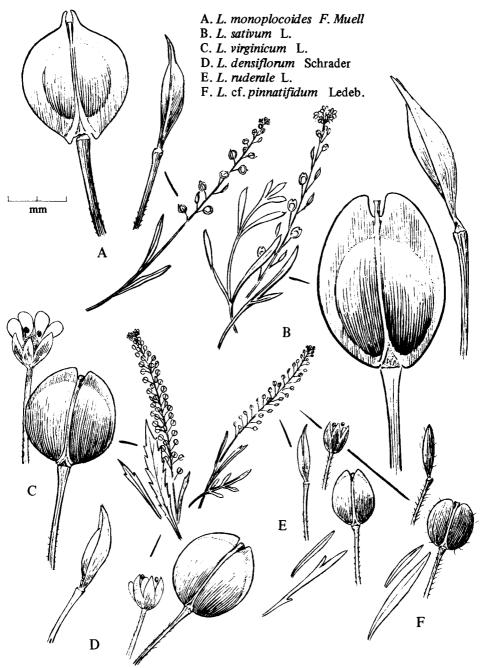
compiled by Eric J. Clement

NOTES ON SOME ALIEN PEPPERWORTS

- T.B. Ryves' excellent paper on *Lepidium* in *Watsonia* 11 (4): 367-372 (1977) needs little update. On p. 368 there are two errors (comm. TBR) -L. desvauxii Thell. is misspelt (same error in Probst, 1949) and the silicula dimensions of L. sativum were reversed -5.6×3.5 mm was intended. Graham Easy has supplied us with a splendid sketch depicting some of the variation in leaf and silicula shape within the genus; two of the chosen species (A and E) are additional to Ryves (1977).
- A. L. monoplocoides F. Muell. On river shingle, Galashiels (Roxburgh), Sept 1977. Mrs O.M. Stewart. Det. EJC. 1st record for Br (& Europe?). This local, Australian sp. can be keyed out by its unique fruit, with the two acute and connivent lobes at the summit. A low, annual plant with glabrous, linear and all entire ivs; petals absent; stamens 4; seed 2 mm long, winged.
- B. L. sativum. Typically a glaucous or pruinose plant, sometimes to the point of appearing quite white, and one that members often fail to identify even to the genus! Both CTW2 and Fl. Eur. 1 are rather unreliable in details re this genus; e.g. this sp. often fails to key out in the latter, demanding "at least the upper cauline lvs linear and entire". They are, quite typically, ternate or lobed, as shown in Butcher's illustration, vol 1, p. 281. But there is a rare variety with the lvs all unlobed, that I have met just once: cliff top, Eastbourne (E. Sussex), May 1976. Mrs A.M. Boucher. Hb. AMB. Det. EJC. Nowhere in Br is this sp. "naturalized", as claimed in Fl. Eur. 1:331, although viable seed is often set.
- C. L. virginicum. A typical plant is illustrated; other variants seem, to me, to merge into L. densiflorum. Very rarely L. virginicum might persist, for a while, in Br e.g. on disused railway sidings between Worksop and Retford (Notts), June 1977. J. Hodgson. Conf. TBR. "About 6 plants, on cindery ground of pH 7.5, adjacent to a derelict station or goods depot, but no other aliens were nearby, although at the other side of the station Vulpia myuros and Apera interrupta occur."
- D. L. densiflorum. Various, self-perpetuating (i.e. self-pollinated) races appear to exist. Extreme forms of this species are called L. neglectum Thell., in which the upper leaves are linear, (sub)entire and without lateral veins, but I fail, as did TBR, to see any clear-cut, demarcation line. Duvigneaud & Lambinon disagree in Dumortiera 2:27-32 (1975); they provide good drawings and a key (in French) covering the L. ruderale group in Belgium.
- E. L. ruderale. TBR forgets to say "smell it!" Apparently, it is separable from all its many allies by its distinct, rather foetid odour, a character lost in the herbarium if good field notes are not appended nota bene! Fl. Eur. 1 limits the fruiting pedicel length to 2 2.5 mm; but 3-4 mm is equally likely in Br in non-arid habitats. I doubt, too, whether it is truly a Br native.
- F. L. cf. pinnatifidum Ledeb. This puzzling plant, resembling L. ruderale, if correctly named, would be new to Br. It was c. 2ft tall, with an erect and stiffly branched habit; upper lvs untoothed; siliculae small, orbicular, completely unwinged and sparsely hairy; seeds unwinged. GMSE found several plants on empty sludge beds at Cambridge Sewage Farm in 1976. Typical L. ruderale was close by. Sadly, only "scraps" have been preserved in Hb. GMSE and Hb. EJC.

Lepidium species:-





G.M.S. Easy O

The very distinctive *L. perfoliatum* continues to crop up occasionally (cf. *BSBI News* 14, p. 11). Two more recent records follow:

(i) On a road verge at Matlock (Derbys), 1977. J. Hodgson. "c. 12 plants, introduced

with grass seed, but appearing to be persistent at least in the short term."

(ii) New car-park, Forest of Dean (W. Glos), 1977. J Ounsted. Hb. TBR. A cluster of plants "on bare grit where the Commission have 'reclaimed' an old colliery into a carpark to start an official Forest Trail at SO/626.097. There were no associated aliens or other clear indication of how it got introduced."

MIXED BAG

Anagallis monelli L.: Oxford tip, 1970. Dr H.J.M. Bowen. A scarce garden plant. 1st record on my files.

Anemone blanda Schott & Kotschy: On lane bank below garden, Selborne (N. Hants), Apr 1981. Comm. Dr A.C. Leslie. Shown to an LNHS Meeting as A. apennina, but was much closer to A. blanda, as all the gardeners present were quick to point out. A sur-

prisingly ?1st Br record.

Beckmannia syzigachne (Steud.) Fernald: Barry Docks (Glams), July 1981. T.G. Evans & A.L. Grenfell. Conf. EJC. One plant, in crack in concrete, outside flour mill, growing with *Triticum* sp. Trevor Evans seized the opportunity to portray this very rare casual for us. The annual rootstock, single, fertile floret per spikelet and small anthers (c. 1 mm) typically separate this taxon from the very similar B. eruciformis (L.) Host which is a perennial, with 2 fertile florets and anthers c. 1.8 mm long. In spite of these and further characters detailed and depicted in Gorteria 3(13):209-211 (1967), some plants I still find v. difficult to assign to either species; both appear to be variable, and certainly both can have somewhat puberulent lemmas (contrary to Fl. Eur. 5). The only Br records known to CEH were (comm. Dr J.C.E. Hubbard) as follows:

Norfolk: Harford tip, 1972. P.G. Lawson & A. Copping. See

Trans. Norf. Norw. Nat. Soc. 22(6), 1973.

Glamorgan: Splott, Cardiff, 1926. Hb. Melville.

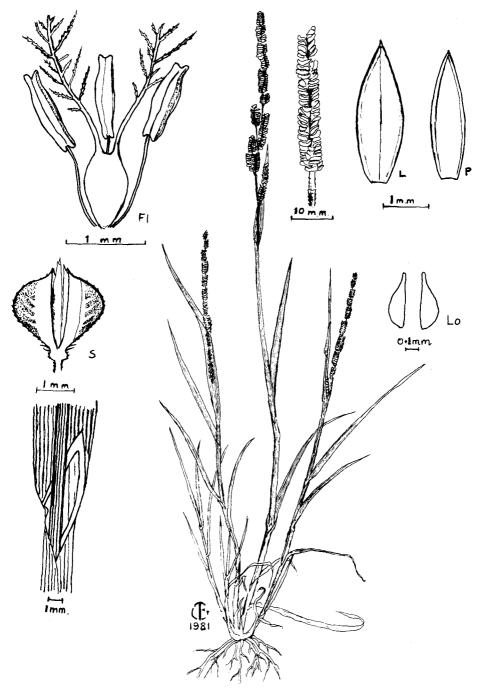
Somerset: Bedminster, Bristol, 1922. C. & N. Sandwith. Gloucester: St Philips Marsh, Bristol, 1916. C. Sandwith.

Bucks: Near Uxbridge (Mddx), 1911. J.E. Cooper. (BM specimen re-det. Dr A. Melderis, 1956, from B. eruciformis).

According to CEH, true B. eruciformis is rarer still (although it appears in Druce's BPL, 1928):

Gloucester: Avonmouth Docks, 1930. C. Sandwith.

Brachiaria marlothii (Hack.) Stent: Carrot field, Little Shelford (Cambs), Oct 1955. Mrs H.P. Boyon CGE. Det. CEH. This S. African grass was illustrated, from this specimen, in BSBI News 27, p. 19 (the genus was misspelt in the caption), because it resembled, superficially, one of the Echinochloa spp. which were under discussion. This new GMSE drawing actually replaced the promised one from Trans. Kent Field Club (1977), that was mislaid. ?1st Br record. The only other Br field record known to CEH (Comm. JCEH) was from Blackmoor (N. Hants), 1969 — see Watsonia 10(1):45 (1974). The ligule is represented by a fringe of hairs in this plant: in all our Echinochloa aliens (except E. holubii — with only one record for Br — see idem:46) there is no trace of any ligule.



Beckmannia syzigachne

del. T.G. Evans 1981 ©

Inula orientalis Lam. (I. glandulosa Willd.): Box Hill Common (N. Wilts), ST/835.692, Aug 1981. R.D. Randall. Hb. EJC. Det. DMcC. "With dumped garden soil, where it looks like becoming established."

Lonicera nitida Wilson: Roadside, Knockaunroe (Co. Clare), June 1978. Dr J.G. & C.M. Dony. This sp. is, increasingly, bird-sown from gardens: I will summarize, nation-wide, all records for this sp. in the next News — are there any more records for me?

Lychnis coronaria (L.) Desr.: Waste ground, near Scout Hut, Groby village (Leics), 1978. Mrs E. Hesselgreaves. Det. EJC. Sent in as "Corn Cockle?", which it does resemble. Seeds very readily, and so is not rare outside of gardens.

Microsorium diversifolium (Willd.) E. Copel. (Polypodium diversifolium Willd.): Two patches, naturalized in woods, Tresco (Scilly), May 1971. J.R. Palmer. Det. DMcC. New to JEL's Flora.

Neillia sinensis Oliver: S. of bridge between Lamlash & Brodick, Arran (Kintyre), June 1969. Mrs O.M. Stewart. E.

Petasites palmatus A. Gray: In copse, Carlton Road, Tunbridge Wells (W. Kent), 1955-60. Dr C.A. Stace. Hb. CAS. Good patch, of female plant, in presumably old, neglected woodland garden. Site destroyed soon after 1960 by building. Curiously, this obvious ornamental appears in no gardening literature? 1st Br record.

Potentilla cinerea Chaix ex Vill.: One plant, on stone wall, Clive Vale, Hastings (E. Sussex), Apr 1980. A.E. Moon. In flower, again, Apr 1981. Det. Dr S.M. Walters. "Means of introduction unknown." Very-rarely grown in modern gardens? 1st Br record.

Scabiosa caucasica Bieb.: Refuse tip, Waterbeach (Cambs.), Sept 1970. G.M.S. Easy. ?1st record outside a garden. Mrs F. Houseman also found it, in 1978, in two Yorkshire localities: roadside nr. Knaresborough and at Norwood, nr. Harrogate. Both were relicts of planting?

Scutellaria altissima L.: Small colony, well away from habitation, on the margin of Pasture Wood, Holmbury St Mary, nr. Guildford (Surrey), June 1972. K.W. Page. Comm. Dr A.C. Leslie. Still there in June 1980, and slowly increasing. Hb. ACL. Elsewhere I know of it only at Mells (N. Somerset), where it is convincingly natzd in a wooded ravine: it is far from obvious that the colony lies immediately below a hidden, garden-rubbish chute, high above the site!

Senecio glastifolius L.f., non Hook. f. (S. lilacina Schrad.): Shore end of the path across the dunes from Tresco Abbey to Pentle Bay, Tresco (Scilly), Aug 1971. Miss D.M. Yoxall. RNG. Det. EJC (previously misdet. JEL, as "Aster sp."). 1st Br record. Mrs M.C. Foster also found it, independently, as a garden escape at Tresco, June 1978, referring it provisionally to "?Chrysanthemum hybrid". Hb. EJC. This S. African perennial with yellow disc florets and purple-pink rays, in heads 2 ins across, does not (superficially) look Senecio-like.

Setcreasea pallida Rose: Reading tip (Berks), 1973. Dr H.J.M. Bowen. 1st Br record. "An extraordinary, purple, frost-tender plant in Commelinaceae, kept going by me for c. 5 years in a greenhouse."

Sisymbrium runcinatum Lag. ex DC.: Esparto grass alien, Guardbridge (Fife), 1960. Miss E.P. Beattie. RNG. Det. EJC, 1981. Mis-det. JEL as "Erucaria?" and "near to Rapistrum". Also found at Chirnside Paper Mill tip, Chirnside (Berwick), Nov 1961. Mrs Robson, comm. Miss M. McCallum Webster. CGE, K. No more recent records exist? Beware of how the yellow petals fade to white in the herbarium in this and some allied species!

Stipa arundinacea (Hook.) Benth. (Apera arundinacea Hook.): Many seedlings on sloping, stone retaining-wall of garden, Trengwainton Nat. Trust (W. Cornwall), Apr 1974. J.R. Palmer. G.S. Thomas in his very sound book, Perennial Garden Plants (1976), mentions the same locality and says it "will seed itself in heavy soils as far north as Yorkshire." Is this tall (3-5 ft), handsome, rhizomatous, New Zealand grass 'countable' elsewhere?

Viburnum farreri Stearn (V. fragrans Bunge, non Loisel.): On ditch bank, near Parkgate House, Ham Common (Surrey), Apr 1981. Dr A.C. Leslie. Hb. ACL. One bush, freely suckering at base, hidden behind dense scrub, growing with some bulbous aliens, but no other alien shrubs.

COCKLEBURS IN BRITAIN

Three species of the annual genus *Xanthium* regularly occur as casuals in Br. They are so easily named on their characteristic leaf-shapes that no key is required — a glance at Graham Easy's fine cover drawing suffices. The two species with trifid, yellow spines at their If bases, *X. spinosum* L. and *X. ambrosioides* Hook. & Arn., were recently re-argued by Mrs D. Love to belong to a separate genus *Acanthoxanthium* (DC.) Fourr. — see *Lagascalia* 5(1):55-71 (1975), but *Fl. Eur.* 4 remains conservative. The *X. strumarium* L. aggregate never has spines.

In Br, X. ambrosioides, the rarest of the three, has always been restricted to wool waste (unlike the other two spp), where it has occurred in vc's 12, 16, 30, 37 and 63—see vouchers in BM, LTN and RNG. And this is the only species that has truly shown signs of becoming established (although Dandy, 1958, lists the other two species!). C.G. Hanson reported it as "several hundred plants" in 1975 in a sandy, market garden field, near Flitwick (Beds). It has been there for at least 1973-81, but selective weed-killer spray this year has apparently reduced it to a dozen or so plants: our illustration shows part of one of these. It does not feature in Fl. Eur. 4: Love describes it as a "decumbent annual with thin, weak stems and branches, not more than 20-30 cm tall; lvs about twice as long as broad, pinnatifid; male flowers with a stipitate floral bract with a roundish lamina; frs small, 7-8 x 3-5 mm. Endemic to Patagonia, Argentine."

The polymorphic X. strumarium (see BSBI News 9, p. 17) is treated differently in every flora. The male flowers consisting of a cluster of 5 stamens (see fig.) are constant, but the female burrs vary greatly in size, armature and indumentum, and have given rise to many specific epithets. Two representative variants are illustrated: a1 from Wicken Fen (Cambs), 1952, and a2 from Beeston (Beds), 1950. I hesitate to give them even subspecific names. Each variant breeds true, but professional dets are not so invariant or so decisive! E.g. fruiting specimens in BM from Kew, Surrey, 1864 and 1866, and Acton Green, Mddx, 1900, were recently (1974) det. by P.W. Michael as having "affinities with both X. saccharatum Wallroth and X. italicum Moretti."

Spiny Cocklebur, X. spinosum, shows rather little morphological variation, esp. so in the burrs. Beeston (Beds), 1950, provided the illustrated material of this very typical wool alien.

"Enough!" says the Editor \dots but please continue to send in records on 5 x 3 ins slips, queries, etc. Thank you.

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

TRACHELIUM CAERULEUM L. (Throatwort) ON THE BRITISH MAINLAND

On 21.3.81 while walking across mown grassland near Old Bexley, W. Kent (v.c.16) I noticed many tufts of leaves of a plant I did not recognise, growing on the sunless face of an old brick wall. Attempts to grow the plant on from small pieces failed completely and therefore it was revisited more than once, until finally on 12.8.81 it had produced at least one hundred large showy corymbs, up to 5" across, of bright blue flowers. It was determined by EJC as the above species, hitherto recorded as established in the British Isles, only in the Channel Islands.

The wall is about 8 feet high with grassland reaching to its foot, and that part of it where *Trachelium* grows, forms the wall of a heated greenhouse built on the other side. This warmth may have ensured the continuance of the plant on a wall with a NNW aspect. The species extends for some distance on the face of the upper part of the wall, and the number of mature flowering plants together with the presence of seedlings indicates that it has been established there for some considerable time. Leafy flower stems up to 2 feet long are produced to project upwards into the sunshine. There are no residential areas nearby, but there are public gardens within a few hundred yards. I did not see the plant there or in the greenhouse on the other side of the wall.

Staff in the greenhouse told me that they had tried to grow the plant in pots some time ago but with great difficulty and little success. They did not know how or when it had appeared on the wall. D. McClintock tells me that in the Channel Islands it has been known for a century, only on walls and not in any other habitat.

Cotoneaster zabelii Schneider naturalized at Gravesend, W. Kent

On 24th May 1979, I noticed many large seedlings (det. EJC) of this Chinese species bird sown on an old wall near a car-park in Gravesend, the source being from public gardens nearby. On a further visit in May 1981, I discovered that the species was quite widely established in the area; in a short while I observed at least thirty seedlings of various sizes, on old walls and grassy banks, accompanied by several other species of Cotoneaster.

C. zabelii is a medium-sized deciduous shrub with arching brown striate hairless stems, white-hairy shoots and last year's twigs still hairy but olive-green in colour. The oval, slightly mucronate leaves are rounded at the base, mid-green and hairless above, but paler and densely white-hairy beneath, 2.5 cm long x 1.75 cm wide on 0.5 cm stalks. The small pinkish flowers appear in May with upright petals, and are followed by pinkish, downy obovoid fruits.

As far as is known, this is the first record of *C. zabelii* being naturalised in the British Isles.

J.R. PALMER, 19 Water Mill Way, S. Darenth, DARTFORD, Kent, DA4 9BD.

NEW IBRA PUBLICATIONS LIST 1981/82

The International Bee Research Association has just issued a new 16-page catalogue for 1981/82.

Known as List 1, it covers publications on beekeeping techniques, bee breeding, bee behaviour and anatomy, bee forage and pollination, hive products and bee diseases.

List 1, which describes over 90 books, reprints and bibliographies, can be obtained free of charge from:

IBRA, Hill House, GERRARDS CROSS, Bucks SL9 ONR.

BSBI VISIT TO MAJORCA - SPRING 1981

This party of twenty-two members led by Mary Briggs, Franklyn and Margaret Perring, set off on 15 April to spend a week in the north-east corner of this Ballearic Island famed for its exciting, endemic plants. This light-hearted account of our stay will, of course, be followed by a more scientific report in *Watsonia*.

Despite threats of industrial action at Heathrow our main delay was the tardy appearance there of our plane from Palma. Our late evening arrival at the Puerto Pollensa Hotel, followed by some hectic midnight sorting out of room allocations, meant that it was early morning before we were finally installed. Notwithstanding its idiosyncratic plumbing the hotel was comfortable, with plenty of hot water. Cold water, brought by two violent night thunderstorms penetrated through both shutters and roof, that from the latter cascading into one member's wardrobe, soaking her clothes.

To offset these mishaps, our hotel proprietor — the local mayor, no less — and his staff could not have been more helpful. What he thought of this curious bunch of diversely attired people who departed each morning booted, equipped with optical apparatus, clutching their hotel-packed lunchbags only to return at dinner time and spend the evening assigning names to the assorted vegetation they collected, he was too polite to reveal. We dined at two long tables along which the head waiter noted our names and reserved our seats. All to no avail. The poor man was quite discouraged by our changing places for every meal.

Our request for a genuine Paella with Sangria he greeted with enthusiasm, so much so that after a superlative meal, the chef was paraded in to receive our congratulations. Not to be outdone, our

Mayor/host responded by treating us to champagne with our final dinner.

The daily excursions took us to a wide variety of habitats, many dominated by phenomenal limestone scenery. Everywhere, we encountered a wide diversity of species, such that by the end of the week our tally exceeded five hundred and fifty, excluding lichens.

Our inspiring and indefatigable leaders had done their homework thoroughly. They stopped the bus at pre-determined locations, and Lo! there would be *Ophrys lutea* or some other treasure, growing as if by order, and ready posed to be photographed. Other – unscheduled – stops were made when a sharp eye spotted some new discovery, heralded by cries of 'Stop the bus – Orobanches'.

On two of the days we divided into 'high' and 'low' parties taking, respectively, to the hills or to more leisurely routes, which included stops at wayside bars. Here the local cats enjoyed more protein (ex packed lunches) than appeared to be in their normal diet. Triumph for the 'low' party came with finding *Limadorum abortivum* in flower, an event which prompted some 'high' party photographers to make a dash to the site, by taxi, in the last hour before leaving to catch the plane home.

Inevitably some blatant bird watching occurred — over eighty species being recorded; the highlights being an Osprey fishing, and some very pink Flamingoes. An unforgettable spectacle was the Good Friday torchlight procession in Pollensa followed two days later by a visit to the Sunday market there, where, amongst all the souvenirs, some forty different fruits were displayed for sale.

The weather was mixed; in Britain it seems to have been better than in the Mediterranean that week. On the one day that promised to be really hot and some members were lured into wearing shorts, we were assailed by sudden hail, thunder and torrential rain. Then on the last drive across the island to Palma for our return flight we drove through extensive floods and unprecedented damage that filled pages of the local papers.

No apologies for any over-emphasis on food and creature comforts — (see Watsonia for the relevant botany) which contribute so much to an energetic and successful tour.

CELIA JARRATT, 40 Hillside, HORSHAM, W. Sussex RH12 1NG.

FOR PHOTOGRAPHERS

WESTWARD PHOTOGRAPHERS ASSOCIATION (Phyl Taylor and Joan Tubbs). These two BSBI members announce the photographic courses on Natural History detailed below.:

ISLES OF SCILLY 6-13 March – self catering £35 for the week.

WILTSHIRE (near Marlborough) - in delightful thatched cottage £15 per weekend.

Dates - 16-18 April, 30 July - 1 August, 15-17 October

DARTMOOR - private field study centre at Colehayes Park Hotel.

Dates - 13-20 August, 24 September - 1 October

Further details from: 9 Ridgemount, Guildford GU2 5TH, Telephone (0483) 73090

WILDLIFE AND COU

LIST OF PLANT SPECIES FULLY PROTECTED UNDER THE WILDLIFE AND COUNTRYSIDE ACT 1981

Adder's-tongue Spearwort

Alpine Catchfly
Alpine Gentian
Alpine Sow-thistle
Alpine Woodsia
Redstraw Broomrane

Bedstraw Broomrape

Blue Heath Brown Galingale

Cheddar Pink
Childing Pink
Diapensia

Dickie's Bladderfern Downy Woundwort Drooping Saxifrage Early Spider orchid Fen Orchid

Fen Violet Field Cow-wheat Field Eryngo Field Wormwood

Ghost Orchid

Greater Yellow-rattle Jersey Cudweed Killarney Fern Lady's-slipper Late Spider-orchid Least Lettuce

Limestone Woundwort

Lizard Orchid
Military Orchid
Monkey Orchid
Norwegian Sandwort
Oblong Woodsia
Oxtongue Broomrape
Perennial Knawel

Plymouth Pear Purple Spurge Red Helleborine

Ribbon-leaved Water-plantain

Rock Cinquefoil Rough Marsh-mallow Round-headed Leek Sea Knotgrass

Sea Lavender Sickle-leaved Hare's-ear

Sickle-leaved Hare's-G Small Alison Small Hare's-ear Snowdon Lily Spiked Speedwell Spring Gentian Starfruit

Starved Wood-sedge Teesdale Sandwort Ranunculus ophioglossifolius

Lychnis alpina Gentiana nivalis Cicerbita alpina Woodsia alpina

Orobanche caryophyllacea

Phyllodice caerulea Cyperus fuscus

Dianthus gratianopolitanus
Petrorhagia nanteuilii
Diapensia lapponica
Cystopteris dickieana
Stachys germanica
Saxifraga cernua
Ophrys sphegodes
Liparis loeselli

Viola persicifolia
Melampyrum arvense
Eryngium campestre
Artemisia campestris
Epipogium aphyllum
Rhinanthus serotinus
Gnaphalium luteoalbum

Trichomanes speciosum Cypripedium calceolus Ophrys fuciflora Lactuca saligna Stachys alpina

Himantoglossum hircinum

Orchis militaris
Orchis simia
Arenaria norvegica
Woodsia ilvensis
Orobanche loricata
Scleranthus perennis
Pyrus cordata
Euphorbia peplis

Cephalanthera rubra Alisma gramineum Potentilla rupestris Althaea hirsuta

Allium sphaerocephalon Polygonum maritimum

Limonium paradoxum, Limonium recurvum

Bupleurum falcatum Alyssum alyssoides Bupleurum baldense Lloydia serotina Veronica spicata Gentiana verna Damasonium alisma Carex depauperata

Minuartia stricta

(continued on next page)

NTRYSIDE ACT 1981

With the passing of the Wildlife and Countryside Act this Autumn, the law in relation to the protection of our wild plants has been strengthened and the number of fully protected plants has been increased from 21 to 62. It remains an offence for anyone, without permission of the owner or occupier of the land, or their agent, to intentionally uproot any plant. It must be emphasised that this general provision relates just to uprooting and does not stop the picking of wild fruit or flowers. However, the stronger controls over the sixty rarities listed in the schedule also remain — these cannot be picked or destroyed as well as uprooted and for the first time it is an offence to trade in these species. Likewise an attempt to do any of the things above also constitutes an offence. However, an offence is not committed if the action is taken for scientific or educational purposes or for the conservation of a species, so long as a licence is obtained. The terms of the licence can be varied according to the circumstances, for example, the persons involved, special conditions, area etc. The possession of anything which is capable of being used for committing an offence is also an offence.

The new Act changes the criteria used for the selection of the scheduled species; in 1975 a species could be added that had "become so rare that its status as a British. plant (was) being endangered by an action designated as an offence "but now a plant can be added if it "is in danger of extinction or likely to become so unless conservation measures are taken" which enables "vulnerable" as well as "endangered" species to be added to the schedule. The Secretary of State can for the first time also add species simply to meet an international obligation.

The new Act also covers the difficult field of wildlife introductions — a general provision to try and stop all deliberate wild plant introductions was sensibly removed during the passage of the Bill as being unworkable. But this still leaves a small schedule of plants, including Japanese Seaweed, which it is an offence to plant or "otherwise cause to grow in the wild".

More detailed provisions appear in the Act relating to enforcement, for example, in relation to searching premises and the period within which proceedings are brought. It is now possible, if it was ever thought necessary, and if the Secretary of State wished, to establish an advisory committee on plants.

The NCC remains the body charged, at least every five years, with advising the Secretary of State of any plant which should be added or removed from the schedule. The maximum fine for breaking the law has increased from £100 in 1975 to £500 today.

T.S. SANDS, RSNC, The Green, Nettleham, LINCOLN LN2 2NR.

List of fully protected species (cont'd).

Thistle Broomrape
Triangular Club-rush
Tufted Saxifrage
Water Germander
Whorled Solomon's-seal
Wild Cotoneaster
Wild Gladiolus
Wood Calamint

Orobanche reticulata
Scirpus triquetrus
Saxifraga cespitosa
Teucrium scordium
Polygonatum verticillatum
Cotoneaster integerrimus
Gladiolus illyricus
Calamintha sylvatica

REQUESTS

HIERACIA STUDY GROUP

In view of the difficulty most of us have with the hawkweeds, and the near impossibility for the beginner even to approach determining a specimen, the Records Committee has decided to set up a group for those studying the genus on a regional basis. The aim is by discussion, comparison of specimens and fieldwork to widen and enlarge the knowledge of group members and thus knowledge of the genus within Britain.

As no referees are yet available, it will be appreciated that specimens cannot be accepted for determination, but will those interested in joining the new group please apply to its Secretary: JIM BEVAN, 23 Priory Street, CAMBRIDGE, CB4 3QH.

An albino form of Epipactis helleborine (L.) Crantz.

During early August this year, I revisited a colony of *Epipactis helleborine* seen seven years previously at Himley Wood (v.c. 39) in West Midlands. The colony now much reduced in quantity and vigour consisted of eight flowering individuals in moderate shade. Three of these plants were almost entirely white, the only exception being the stem and the inside of the hypochile, these being a pale pink. A typical plant was 300 mm tall with seven flowers each 10 mm across, the lowest bract 32 x 6 mm; the seven leaves broadly lanceolate, the lowest pair opposite, each 55 x 15 mm. These plants covered a level area some 6 x 3 metres under a canopy of *Betula pendula* and *Salix caprea*, the sparse ground flora consisting of *Rubus fruticosus* agg., *Poa trivialis; Stachys sylvatica; Urtica dioica; Epilobium montanum & Torilis japonica*.

The colony is near a disused railway, in the grounds of a former colliery/brickworks complex. The soil is a heavy black mull of pH 6.10 at 100 mm depth.

Have plants of this description been seen elsewhere in this country? A record for Canada, where the species is presumably introduced, is to be found in Godfery M.J. (1933) Monograph & Iconograph of Native British Orchidaceae, p. 63.

B.R. FOWLER, 84 Woodthorne Road South, WOLVERHAMPTON, WV6 8SL.

Old Botanical Books for sale

Babington, C.C. Manual of British Botany. 9th Edn. 1904.

Hooker, Sir J.D. Student's Flora of the British Islands. 3rd Edn. 1884.

Hooker, Sir W.J. & Walker-Arnott, G.A. The British Flora. 8th Edn. 1860. (Bound in leather).

Jones, Rev. J.P. & Kingston, J.F. Flora Devoniensis. 1829. (Spine damaged, otherwise good condition).

Offers should be made direct to him:

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

DRAWING FROM A HERBARIUM SPECIMEN

This is the second part – by Rosemary Wise – of the article on "How to draw plants"

I work in a herbarium so I am able to look at several examples of the same species. I decide which parts of each herbarium specimen are the most typical for that species.

Next, I make sure of the precise size that I have to work to. Most publishers prefer artwork to be one and a third or one and a half times larger than this measurement.

I draw a rectangle of the calculated size in pencil on good quality card. Then I trace outlines of the parts to be illustrated onto separate pieces of tracing papaer. I draw flowering and fruiting habits, and enlargements if necessary, bearing in mind the magnification after reduction. If the flowers are small, it is necessary to boil them in water for a few minutes. When viewed under a dissecting microscope or hand-lens, the structure should become apparent. (Pieces of flowering material can be taken from the least noticeable part of the herbarium sheet).

The exact shape of the leaves can be traced directly from the herbarium specimen provided that perfect leaves are substituted for any damaged ones. Sometimes the venation may be all important to distinguish one species from another so on one leaf I do a very detailed section. An accurate impression can be achieved by placing a piece of tracing paper over the leaf and rubbing VERY GENTLY with a soft pencil.

When I have all my separate tracings ready, I spend a while arranging them within the rectangle. I try to produce a fairly detailed drawing in pencil before inking in, paying particular attention to the width of stems, lengths of petioles, hairs, petals and other measurements.

For the inking in, I use Rotring pens in nib sizes from 0.15 to 0.4 mm. I use a larger size for fleshy or leathery leaves than for more delicate ones. I prefer to stipple for shading, usually with a 0.2 mm pen, as hatching can be confused with hairs or veins. The very minimum of shading should be used. Too much ink in too small an area doesn't reproduce very well.

Alterations can be made by painting out with correcting fluid and redrawing when it is dry. If a complete part has to be redrawn, it can be done on a separate piece of card which is then trimmed to size and stuck on. The edge does not show in the printing.

Each drawing should have a half or one-inch border. In this space (or on the back of the drawing) I write clearly the name of the plant, the collectors' names and the magnification of the different parts.

Rosemary Wise

MATERIALS FOR BLACK & WHITE DRAWING

Cartridge paper Bristol board CS 10 paper CS 2 board Tracing paper	Rotring pens in sizes	0.1 0.15 0.2 0.3 0.4	mm mm mm mm
etc. Pencils (2B, HB, 2H) Pencil sharpener Soft, clean rubber	Ruler Flexible ruler French curves		

Typists' correcting fluid Designers' gouache (zinc white) etc.

NOTICES

Official BSBI notices

SEDGES (BSBI Handbook No. 1) - 2nd Edition

There has been some delay in the production of this publication and it is now expected to appear at the end of January or early in February 1982.

Will those who have placed pre-publication orders, please exercise a little further patience and not write or phone the Treasurer with enquiries.

INDOOR MEETING IN LONDON

The BSBI and The Fauna and Flora Preservation Society are joining forces for a day on Saturday 27th March 1982 at Regent's Park London, and are arranging a meeting to consider Endangered Fauna and Flora; Habitat Conservation in Britain and Europe. A prominent conservation supporter from the House of Lords will chair the meeting and contributions are expected from speakers of national and international repute. The all inclusive price of about £5.00 will cover coffee, tea and a buffet supper followed by a topical film. The meeting will commence after lunch. For further details see below.

OUTDOORS NEAR PARIS

The Meetings Committee is delighted that Dr Francis Rose, author of *The Wildflower Key* published in 1981 has agreed to lead a field meeting in the Fontainbleau area next summer.

Provisional dates are 28th May to 7th June and accommodation will be available at a field centre and local hotels. The intention is to make this an inexpensive foreign excursion, so travelling and living expenses will be kept to a minimum compatible with maximum enjoyment of the locality and the cuisine!

The Fontainbleau area, just south of Paris has the richest flora in lowland France. Within the Forest it is claimed that there are 1,200 vascular plants. Close by are extensive plateaux of acid sandstone, heaths, bogs, damp rocky ravines, calcareous fens and limestone outcrops. The species lists supplied by Dr Rose are mouth-watering and this is a chance to see many of Britain's rarer plants in relative abundance.

Anyone interested in joining the excursion party, (which will be limited to 25 persons) or the Regent's Park meeting (above) should contact me at the Annual Exhibition Meeting on 28th November, or by post before the end of January 1982.

MISS J. MARTIN, Calthorpe House, Calthorpe Street, BANBURY, OX16 8EX.

Other notices

TREE PLANTING AND FARMING PRACTICE

This one-day conference will take place on Saturday, 23rd January 1982 in The Buchanan Theatre, Union Street, St Andrews from 10.am to 5.pm. It is a follow-on from the successful "Trees in the Fife Landscape" conference held in 1980, and will show how trees are an important and integral part of farming practice.

Anticipated course fee, £5,00.

Further details and registration forms from: Dep't of Adult Education and Extra Mural Studies, University of St Andrews, 3 St Mary's Place, ST ANDREWS, Fife. Telephone: 0334 76161, ext. 551.

An International Symposium on the

BIOLOGY OF PTERIDOPHYTES

will be held at

Edinburgh University Botany Department and Royal Botanic Garden EDINBURGH, SCOTLAND, SEPTEMBER 12–16, 1983

Accommodation at the Pollock Halls of Residence

Proposed lecture themes include: "Cytology, Genetics and Breeding Systems", "Morphogenesis", "Speciation", "Experimental Ecology". Plenary sessions on major topics, with shorter lectures on current research, also poster demonstrations, excursions, informal discussions.

Sponsors: The British Pteridological Society, The Linnean Society of London and The Royal Society of Edinburgh.

For further details (available Autumn 1982) apply:

THE EXECUTIVE SECRETARY, THE ROYAL SOCIETY OF EDINBURGH, 22-24 GEORGE STREET, EDINBURGH, EH2 2PQ.

STANNER ROCKS NNR

In Watsonir 13(4):256-270 (1981) reference was made to the interesting botanical locality of Stanner Rock, Radnor, Wales. BSBI members may wish to know that this locality comprising mixed woodland and grassland on south-east facing dolorite cliffs is now a National Nature Reserve. The site is of great importance for the occurrence of several plant species, rare in Britain, which are of a continental European or Mediterranean distribution (including Gagea bohemica).

Because of the nature of the terrain and the presence of vulnerable rare species on the main path up the cliffs, access to the site is by permit only.

Applications for permits should be made to:

Asst. Regional Officer (Radnor), N.C.C., Llysdinam Field Centre, NEWBRIDGE-ON-WYE, Powys LD1 0NB.

COASTAL BOTANY IN KENT and S.W. WALES

BSBI members are invited to consider a visit to Dungeness Bird Observatory, which provides self-catering hostel-type accommodation. It is likely to be fully booked during the main spring and autumn bird migration, but during the summer there is a considerable botanical interest. A revised plant list will shortly be available – requests for copies, or details of accommodation to the Warden: (with s.a.e. please.) Mr H.A.R. CAWKELL, 3 Midrips, Jury's Gap, RYE, East Sussex TN31 7SH.

A Youth Hostel near Haverfordwest, also offers simple reasonably priced accommodation in another coastal area interesting botanically. This Hostel which has a Family Annexe offering Family Rooms is next door to the National Park Information Centre which has study rooms. Further details from the Warden: (with s.a.e please.)

J.A. GARNER, The Youth Hostel, Broad Haven, HAVERFORDWEST Dyfed SA62 3JH.

PROFILE

Goronwy Wynne

The Chairman of the B.S.B.I. Committee for Wales bears a splendid Welsh name whose correct pronounciation defeats all but the most proficient.

Born in Flintshire in 1930, of Welsh speaking parents whose ancestors were themselves of local origin, Goronwy is well known to those members of the B.S.B.I. fortunate enough to have attended the 1981 Recorders' Conference at Cartrefle College, Wrexham, for it was he who arranged things so splendidly for us.

In his early years he was not especially interested in plants, his main hobby being bird watching and for many years he was a keen and knowledgeable amateur ornithologist. His first job, as a Biology teacher in Holywell Grammar School, was a temporary one as a replacement for a sick teacher, but lasted for 12 years. During this time he came to realise that it would be best to specialise in some aspect of Natural History and, fortunately for us, decided on Botany.

From Holywell Grammar School, Goronwy moved to Cartrefle College, Wrexham where he is now Director of Studies in the School of Natural Science.

His social life is centred around traditional Welsh social activities, Music and the Church. His first language is Welsh and spoken exclusively at home. His wife Dilys, although not herself musical, gives every encouragement to Goronwy and their three daughters, Llinos, Bethan and Rhiannon. All three are accomplished harpists and have won many prizes at Eisteddfods. The two younger girls, Bethan and Rhiannon enchanted us one evening after dinner at the Recorders' Conference when they played some traditional Welsh airs.

Goronwy has been associated with the Trelawnyd Male Voice Choir for many years, first as a singer and for the last 12 years or so as the Conductor. The Choir has some 115 members, has visited Canada and Germany, besides giving concerts in many parts of the United Kingdom. It is a very time consuming hobby, involving, as well as the actual concerts, 2 rehearsals every week of the year except during August, for while a chorister may miss the odd rehearsal the conductor cannot. The Choir has also sung on Radio, Television and has made four records. Due to pressure of work, Goronwy was forced to resign as Conductor this year.

When he started taking an active interest in botany in the 1960's, he almost immediately joined the B.S.B.I. (in 1963) and soon after was invited to take over the duties of vice-county recorder for Flintshire, v.-c. 51. For several years nothing happened, he received no records or letters about the flora of Flint. Eventually conscience got the better of him and he decided to prepare a species list of Flintshire plants. Fired with new-found enthusiasm he went to Monks Wood to see Franklyn Perring and tell him the good news. Franklyn listened politely and then told him in no uncertain terms not to waste his time on a checklist but to produce a "proper Flora". Somewhat deflated but still enthusiastic, Goronwy "in blissful ignorance" went away having agreed to start work on a County Flora, and he tells us that he still wakes up at night in a cold sweat when he thinks about what he had taken on. Work started in 1972 with many helpers, but like most Flora projects the numbers soon dwindled to the faithful few. The end is now in sight and the field work at least should be completed in a year or two.

Amongst Goronwy's other interests is visiting Field Studies Centres. He has himself studied in 9 of them in addition to taking his own students on courses. He has botanized

extensively in Britain from Guernsey to Shetland and from the Norfolk coast to the west of Ireland. He also travelled from Alaska to Mexico, collecting plants along the way, after a year teaching in Vancouver on an exchange scheme.

This then is a short profile of our much-travelled, much liked and greatly respected

Chairman of the Committee for Wales.

Gwynn Ellis

CHURCHYARDS AND OTHER BURIAL GROUNDS A BSBI NETWORK RESEARCH PROJECT

Notes to be read in conjunction with the survey form (enclosed with this issue)

Objective of Project

The objective is the identification of the botanically most valuable 10% of churchyards or other burial grounds in each county, and their notification to the appropriate Nature Conservation Trust. The Trust should then be asked to undertake the preparation of a Management Plan in collaboration with the authorites in charge, simple enough to be carried out locally under their guidance, or by members of the Trust who live locally.

Organisation

It is proposed that the BSBI Recorder for each vice-county contacts the other members of the BSBI in that area and devises a programme whereby the majority of the churchyards and burial grounds are surveyed. If the Recorder cannot spare the time to organise the survey, perhaps another BSBI member can be persuaded to undertake the task. A churchyard survey group may be set up. One member of the group would be responsible for collating the returns, checking the assessment and passing this to the local Nature Conservation Trust. Excursions by the group as a whole could be a congenial method of carrying out the survey?

Preparation for visit

Before visiting a churchyard to conduct a survey, permission should be sought from the minister in charge, and details of the current management of the churchyard, and who is responsible, ascertained. At the time of the visit contact with this person/persons might be made. If the churchyard is of conservation importance the collaboration of all these people will be essential. It is important that members should contact the incumbent when carrying out a survey; he may well be able to assist by giving e.g. the acreage, and information on the present management, if any i.e. traditional or unusual? times of mowing, use of herbicides etc. Already completed surveys of churchyards have indicated the importance of visiting early in the year, preferably before the first mowing.

Other botanical features

Can include plants of local importance or conspicuous abundance which do not fall into the "known from 15 or fewer localities" category.

As churchyards are a particularly important habitat for lichens, liaison with the British Lichen Society has been organised and the B.L.S. will be informed of our results so that the churchyards particularly rich in flowering plants can be checked also for lichens.

The non-botanical features

Can include e.g. birds, bats, bees and butterflies. If experts in these groups can be persuaded to visit the most promising churchyards this could help in the preparation of a management plan.

Assessment

Figures from the 6 sources of information from the survey sheet, when added together, provide a single figure which can be compared with those from other churchyards in the county in making a selection for the Nature Conservation Trusts. However, this selection also needs to take account of the location of the churchyard. Some in urban areas may be important simply because they are there.

Acknowledgement

We gratefully record our thanks to those who have spent considerable time devising this survey and working out and advising on the survey form, particularly Jim Bingley, Arthur Chater, Franklyn Perring and John Trist. We would also like to thank members of the Surrey Flora Committee and the Sussex Botanical Recording Society who carried out a trial of the draft survey form under the direction of Joyce Smith and Gillian Barter.

Mary Briggs

Recommended booklets and leaflets:-

G.M.A. Barker, Wildlife Conservation in the Care of Churches and Churchyards. Church Information Office 1972. Available from Oundle Lodge £2.40 p & p included.

The Churchyards Handbook, Church Information Office, ed. 2, 1976. From bookshops.

Churchyards Provide a Refuge for Lichens, British Lichen Society. Mr. J.R. Laundon B.M. (Nat. Hist.) Dept of Botany, s.a.e. please.

LETTERS

THE HOST PLANTS OF CUSCUTA EUROPAEA L. (GREATER DODDER)

This year (1981) has been an excellent one for Cuscuta europaea providing me with the right opportunity during August and September for studying the host plants of this curious, totally parasitic annual herb. I mounted an exhibition on the subject at the BSBI Recorders' Conference at Wrexham in September and because many members expressed amazement at the number of host plants recorded. I am prompted to send this short account of my observations in the hope that it might start an interesting correspondence in BSBI News.

This 'nationally restricted' species is mainly a plant of river and ditch banks in Southern England, and in Gloucestershire follows the line of the Rivers Severn and Avon, where it is known from some nine sites.

As far as I am aware there has been no published list of host species for *C. europaea*. An early reference comes from Gerarde's *Herbal* (1957), p. 462 — "It groweth very plentifully in Sommersetshire upon nettles". The *Flora of Worcestershire* (1909), p. 258, gives "hedges and bushes and damp herbage . . . vetches being the commonest host. . . . rare". Clapham, Tutin and Warburg in the *Flora of the British Isles*, 2nd Edn (1962), p. 667, give "On *Urtica dioica, Humulus*, and rarely various other plants", and the

Flora of Gloucestershire (1948), p. 347, — "Parasitic on nettles, brambles, Polygonum and hop, generally near streams and rivers rare", later mentioning Filipendula ulmaria and thistle at specific sites. The Flora of Bristol (1912), pp. 424 - 425, gives more detailed information on the long-established sites on the Avon between Bath and Bristol — "Parasitic on many herbaceous species a rare plant", and lists the hosts as Sinapis nigra, Conium, Galium mollugo and Solanum dulcamara" and "willow herb, yarrow, great bindweed, comfrey, figwort, ground ivy and bur-reed, but chiefly on the common nettle". It also records C. europaea on Carduus crispus, C. arvensis, etc. at another spot mentioning that "it had even got up into the pollard willows, and was hanging in tresses from their bowls".

I found that at all the sites visited in Gloucestershire, *Urtica dioica* was the primary host. Thereafter *C. europaea* seized upon any plants available, clambering up the stems of the hosts in an anti-clockwise motion until the top was reached, finally spreading out amongst the plants or along the top of a low hedge in a conspicuous jungle of crimson and yellow stems like a tangled skein of thread. The flowers occur profusely in dense globular clusters along the entwining stems festooning a drab nettle or hop with attractive pink blooms, and producing vast quantities of fruit.

The nineteen host plants observed at Gloucestershire sites in 1981 were, besides Urtica dioica:

Agropyron repens
Arrhenatherum elatius
Bryonia dioica
Calystegia sepium
Cirsium arvense
Convolvulus arvensis
Crataegus monogyna
Fraxinus excelsior (young shoot in layered hedge)
Humulus lupulus
Phalaris arundinacea
Prunus spinosa
Rosa canina
Rubus fruticosus
Solanum dulcamara

Epilobium hirsutum Stachys palustris Filipendula ulmaria Vicia cracca

Such a unique plant as the Greater Dodder would obviously earn local names and amongst those given to it are Devil's Guts, Hell-weed and Strangle-weed.

If BSBI members can supply me with further host plants, I would be glad to hear from them.

For those unfamiliar with this genus

The seed of Cuscuta germinates in or on the ground and produces only a short root-like protruberance to give it a hold, and a slender thread or stem which at once begins to sweep round in all directions in an attempt to find the right species of host plant. This action may go on for several days, the thread lengthening to enable it to make wider sweeps. If the nutriment in the seed is exhausted before a suitable victim is found, then the seedling Cuscuta withers and dies. But if the revolving thread brushes against a plant of the right species, i.e. U. dioica in the case of C. europaea, the thread at once makes a tight coil around the host and secures its hold by developing a sucker which is thrust into the stem of its victim. The root-like shoot that was intended only to give the seedling stability, is no longer needed, so it shrivels and the Cuscuta becomes wholly dependent upon its host. I myself have observed its thread-like stem rapidly increase in length entwining itself tightly round the host plant, developing rows of small suckers (haustoria), resembling a row of caterpillar legs on the undersides of the stems which enables it to obtain an unlimited food supply from the sap of its host. If the stems of C. europaea are pulled away from the host plant, a row of incisions in the stem of the host can clearly be seen with the aid of a pocket lens.

SONIA HOLLAND, 64 All Saints' Road, CHELTENHAM, GL52 2HA.

CRASSULA aff. RADICANS (Haw.) Dietr. in Jersey.

An alien *Crassula* found growing on the Quennevais, Jersey, on 24 May 1970 by G.P.B. Martin was provisionally identified by J.E. Elsley and A.C. Leslie in 1972 as '.....close to *Crassula radicans*', a South African species, and this provisional determination still stands.

When first found, the plant was a compact half circle about 25-30 cms in diameter at the foot of a granite boulder facing south-west on a sandy hillside sloping to the south west. The boulder is about 120 cms high, plane-faced, with a slight overhang. The sloping hillside has an open vegetation containing Viola kitaibeliana, Saxifraga tridacty-lites, Mibora minima and Cerastium sp. with stunted bracken, marram and burnet rose binding the soil. The Crassula has no shade apart from that of the rock in the early morning and this year, but not previously, some partial shade from a few bracken fronds. Such a habitat is clearly very different from that given for C. radicans by Harvey in Flora Capensis, 'Woody places near the Zwartkops R.'. It may be that the rock creates a suitable micro habitat round its base.

The plant survived in 1976 when it was baked all day long for months on end in one of the worst droughts and hottest longest summers Jersey has ever known. By 1978 the patch was a straggling open rectangle roughly 80 x 40 cms with the plant in good condition round the edge but it had gone from the middle. Leaves at the tops of the shoots were blackened by a frost of a few degrees in winter 1978/9 but there has been no extreme frost since the plant was found. Leaves root where they fall and now in 1981 there are flourishing plants back against the rock face and isolated ones 40 or 50 cms away from the rock. In the wild, all leaves turn a deep red in summer. This is thought to be caused by shortage of water because, in cultivation with similar exposure to the sun, leaves of plants growing in dry places are completely red but plants with moisture at their roots have leaves which are still mainly green. No seed appears to be set.

In 1979 Mrs L.A. Morris of the Botanical Section of the Société Jersiaise which has been monitoring the plant's progress since 1970, found what seemed to be a similar plant growing as a house-plant in Jersey and pieces were distributed for comparison. E.J. Clement considers it the same species but a different clone (see below). This plant had been brought over from a nursery in England. I gathered some of the fallen leaves of the 'wild' plant and now have it growing in my garden. If any succulent enthusiast would like to grow the plant experimentally I should be happy to send them a small piece. Comments on the identification would also be very welcome.

MRS F. Le SUEUR, Les Hativieaux, Val de la Mare, St. Ouen, JERSEY, C.I.

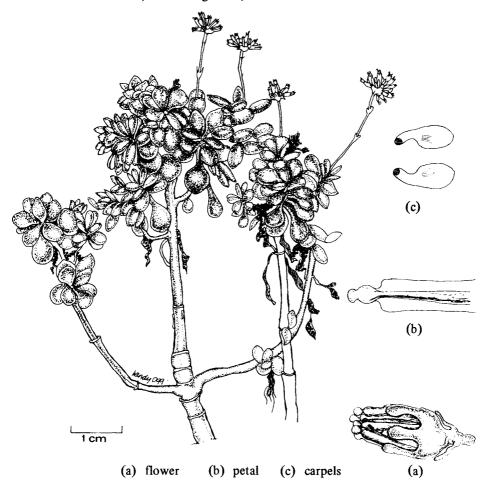
On a visit to Jersey in 1976, I was shown the 'wild' Crassula aff. radicans and sent a piece to E.J. Clement for his comments. I also took a piece to cultivate and it is from the cultivated plant that Miss Wendy Ogg has provided the excellent illustration. My plant has thrived well on being kept in an unheated porch over the winter months and plunged into deep gravel outdoors for the rest of the year. I, furthermore, saw what appeared to be the identical plant under glass in the Royal Botanic Gardens, Edinburgh, in a 'Crassula corner' where it was named C. radicans.

In spite of this, EJC wrote (1.8.81): "The white petals, erect and in tubular form, each with a dorsal appendage very close to the apex, clearly put the Jersey plant into the Section Globulea (Haw.) Harvey of Crassula. But even with the recent monograph

by H.R. Toelken, "A revision of the genus Crassula in Southern Africa" (1977), I cannot satisfactorily key it out. The small (<1 cm), obovate leaves which are minutely pubescent and ciliate close to their base only, appear to defy the classification proposed for a complexity of variation. Indeed, in 1975 Toelken proposed the name change to Crassula pubescens Thunb. ssp. radicans (Haw.) Toelken, and declared C. pubescens to be "extremely" variable". Our plant is apparently not the plant normally in cultivation as C. radicans, which is illustrated in colour in "Crassulas in Ciltivation" by Vera Higgins (1964). Noteworthily, this species is not even mentioned in the 5 vols (inc. supplement) of the RHS Dictionary of Gardening".

This article updates the preliminary report by FLeS in Soc. Jersiase Ann. Bull. 22 (3):254 (1979).

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



Crassula aff. radicans © Wendy Ogg 1981

1mm

PERMITS

Some years ago the Yorkshire Naturalists' Trust was able to obtain on licence, certain rights at Salt Lake Quarry, Ingleborough. This was on the understanding that there would be no public access and indeed that such visitors as there were would only be allowed to visit by permit.

Over the last two or three years, volunteers wardening the quarry for the Trust, have reported an increasing number of visitors, often from a long way away, of whom hardly any have taken the trouble to apply for a permit. When challenged, their attitude has ranged from the apologetic to the belligerent. Equally, a number of others have applied for permits and have greatly appreciated the guided visits which the Trust's volunteers have been able to give them.

Recently four visitors without permits, when challenged, explained that despite having climbed over the stile next to which is a notice stating that all visitors must have permits, they thought it would be all right since they had been given the grid reference of the quarry by a BSBI member who had herself visited the place. They were unaware of the physical danger in the quarry to life and limb, they were unaware therefore of the Trust's insurance considerations. Furthermore, they were unaware of some of the botanical interest there which they might easily have damaged by trampling on during the course of photographing things.

Clearly you cannot exercise control over, nor take responsibility for, the behaviour of your Society's members any more than this Trust can for its membership. However, I should be grateful if you could either print this letter in your bulletin, or abridge it and inform your membership that permits to visit Salt Lake Quarry are needed by all intending visitors. Application should be made beforehand to the undersigned:

S.W. WARBURTON (Field Officer), Yorkshire Naturalists' Trust Ltd., 20 Castlegate, YORK, YO1 1RP.

Editor's Note

The above contribution reinforces the warning given by Lynne Farrell in our last issue (BSBI News No. 28, p. 9).

This is a serious matter and members should see that they comply strictly with all instructions regarding access to reserves and ensure that information on the whereabouts of sites is not communicated to third parties.

Lynne asks that once again, there should be no access to the Cypredium reserve (see BSBI News 27, p. 9).

NOMINA GENERICA CONSERVANDA

One of the Society's original Council Members, a Dr Aeneas McIntyre, chose Euphrasia for the name of one of his daughters. A later B.E.C. member chose Linnaea for his—though as he himself was named Linnaeus (the choice of his botanist father, William Cumming) we cannot be sure in her case that it was the plant that she was called after.

Here is a tradition that today's members ought to be keeping up! Some possible candidates are Lonicera, Campanula, Tilia, Alisma, Malva, Genista, Gagea, Prunella or — for the daughters of the more critical — Alchemilla and Mentha. Seseli, Chamomilla, Stellaria, Carlina and Phyllitis are alternatives for the less adventurous.

D.E. ALLEN, Lesney Cottage, Middle Road, WINCHESTER, SO22 5EJ.

ROADSIDE HABITAT DESTRUCTION IN LINCOLNSHIRE

Loss of habitat is often more subtle than we realise. It is, nonetheless, ultimately as destructive as the wholesale ploughing of a heath or draining of a marsh.

The roadside verge and its surroundings are under pressure as never before. In intensively-farmed areas most of the hedges were grubbed out in the 60's and 70's, and the few habitats that remain are therefore of more importance. The following notes were compiled over the period 1971-1981 in an area of the Witham Fen and fen-edge south of Lincoln.

Highway layout in this area is fairly standard: a metalled strip 12-15 ft wide, with a grass verge 20 ft wide on either side. A ditch of 3-6 ft in depth and a hedge, forms the boundary. The total width from field-edge to field-edge is therefore 60 ft on average.

In a one-mile stretch, in 1971 there were 127 cowslip plants counted. In 1976 there were 50 and in 1980 only 7 could be found. The last plant of *Campanula rotundifolia* went under the encroaching plough in 1979. *Ononis spinosa* and *Galium verum*, once quite widespread, have disappeared, and *Thalictrum flavum* and *Iris pseudacorus* are down to a couple of plants each in the last-remaining ditch.

The following 'uses' for road-verges have been noted in the area surveyed; they are worth recording if any attempt is to be made to conserve such habitats.

- 1. Headland hedges and trees have been removed and ditches filled in. The verges are then ploughed, often to within a yard of the road.
- 2. Where ditches are left, they are dredged by machine, and the spoil dumped on the verge. Bank-mowers cut low and before seeding.
- 3. The metalled road being narrow, vehicles park and pass on the verge, and farm vehicles use it to convey heavy and wide machinery, leading to compaction of the soil.
- 4. Often, sugar-beet is cleaned and loaded on the verge, and the spoil left behind and spread.
- 5. Drainage from the road surface was once effected by hand-cut spade-width channels at intervals. This is now done by tractor and bucket, and areas of up to one yard square have been dug out.
- 6. Some farmers use the verge for filling and cleaning of spraying equipment. There is accidental or deliberate overspraying from the fields.
- 7. The herbage is cut for hay, usually twice a year, and usually so close that bare earth is exposed in patches. There is firecreep also, from straw-burning.
- 8. Verges are frequently used for burying telephone and electric cables, water and gas mains. To my knowledge the authorities carrying out these works, make no checks with local Nature or Conservation organisations before embarking on what develop into quite extensive operations.
- 9. Last but not least, concentration of leisure-use owing to the loss of footpaths leads to an increase in flower-picking and removal of whole plants.

BSBI members could do worse than to keep an eye on their local verges and record any misuse, publicising any in immediate danger.

J.K. OCKENDEN, Brookside, Middle Street, Dunston LINCOLN LN4 2EW.

BSBI Members leading parties abroad in 1982

We have been notified of the following botanical holidays

Mrs Mary Briggs MBE

CYPRUS (Paphos) March 12 (2 wks) — an excellent base for exploring the rocky coasts and pine-clad mountains (C & K).

CRETE (Chania & Stalis) March 31 (2 wks) — at two centres enabling a large area floristically and historically rich to be covered (C & K).

MAJORCA (Puerto Pollensa) April 23 (1 wk) – repeating the BSBI's 1981 visit (C & K).

SPAIN (Berdun) May 17 (2 wks) — the foothills of the Pyrenees and visits to the high mountain pastures (C & K).

YUGOSLAVIA (Bohinj & Plitvice lakes) June 17 (2 wks) — two centres giving access to lakes, mountains and waterfalls (C & K).

SWITZERLAND (Wengen) July 5 (2 wks) — wonderful scenery, colourful plant life, very comfortable hotel (C & K).

SWITZERLAND (Davos) July 26 (2 wks) — the famous ski resort in the Grisons, equally renowned for plants in summer (C & K).

Mr. Eric Clement

CRETE (Chania & Stalis) April 28 (2 wks) as above, but with a member well known for his identification of "alien plants" (C & K).

Mrs Phyl Taylor

SPAIN (Berdun) May 31 (2 wks) — specialising on photography of the scenery, flora and fauna of this region of the Pyrenees (C & K).

ISLES OF SCILLY June 19 (1 wk) — exploring the natural history of both inhabited and uninhabited islands, with photography (C & K).

Dr Susan Eden

CRETE (nr Heraklion) March 11 (1 wk) - (T & G).

PEPLOPONNESE (Tolon, Argolis) March 18-27 — optional tours for seeing flowers in the Argolid Plain) (T & G).

Dr Humphrey Bowen

CRETE April 9 – (1 wk) – as for Dr Eden, above, (T & G).

For further information

Tours marked C & K: Cox & Kings Travel Ltd, 46 Marshall Street, London W1V 2PA. Tours marked T & G: Town & Gown Ltd, 40 South Parade, Summerton, Oxford OX2 7JP.

NOTE

BSBI News does not accept advertising. Members wishing to dispose of old, rare, or out-of-print publications may submit details of what they have to offer to the Editor who will endeavour to publicise them.

Similarly, members leading recognised botanical tours are invited to notify the Editor well in advance of the scheduled departure date.

A FUNGUS FLORA OF WARWICKSHIRE

Your correspondent, Chris Hemingway, writing in the last number, is quite correct in challenging our statement that this work is the only fully detailed county flora devoted entirely to fungi. This ought to have been qualified as relating to modern times. The 1905 Fungus Flora of Yorkshire, to which he refers, was, in fact, overlooked, as it had been superseded by the more recent (1937) Catalogue of Yorkshire Fungi which, as we knew, was simply a check-list showing presence or absence in each vice-county. The 1905 Fungus Flora was on traditional county flora lines; full details of habitats, localities etc., were given for all but a few of the species. It did, however, have little in the way of introductory information whereas our Flora, like most county Floras of flowering plants does include chapters on methods, history of mycology in the area and features of the county, etc., as well as introductions to each group of the fungi dealing with special features of the group and its recording, available literature etc.

MALCOLM C. CLARK, 1 Bittell Lane, Barnt Green, BIRMINGHAM B45 8NS.

PERMANENT WORKING COMMITTEES FOR 1981 – 82

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The President, Hon. Treasurer and Hon. Gen. Sec. are ex officio members of all the above committees.

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