B.S.B.I. NEWS

December 1979
No. 23

Edited by EDGAR D. WIGGINS
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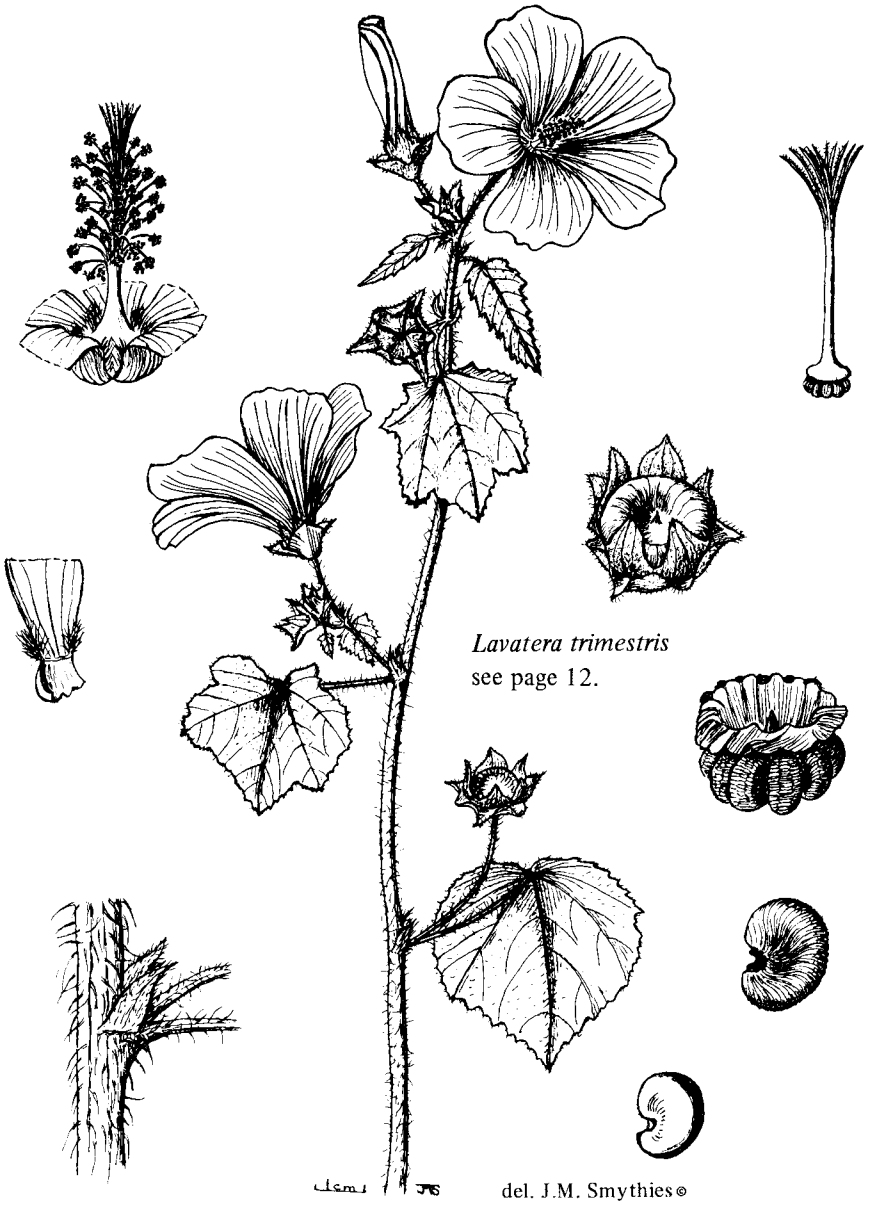

Lavatera trimestris
see page 12.

del. J.M. Smythies ©

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PERMANENT WORKING COMMITTEES FOR 1979 – 80

CO-ORDINATING J.F.M. Cannon, *(Hon. Sec.)* Dr. P.E. Brandham, Dr. R.K. Brummitt, Mrs. R.M. Hamilton, Dr. F.H. Perring, Mrs. J.M. Mullin.

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PUBLICATIONS Dr. R.K. Brummitt, *(Hon. Sec.)* Dr. S.M. Eden, Dr. N.K.B. Robson, Dr. C.A. Stace, Dr. D.L. Wigston, D.H. Kent, E.D. Wiggins, P.S. Green, Dr. F.H. Perring, E.F. Greenwood, J.F.M. Cannon, A.O. Chater, Dr. P.F. Yeo, E.J. Clement.

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

HON. GEN. SECRETARY'S NOTES

Any information on **'Red Data Book Species'** of rare plants please send to Lynne Farrell (address on p. 2) who asks also for *negative* reports, which can be almost as valuable as positive sightings. If you have visited the sites of any rare plants during the year, or have found any previously unknown to you from anywhere in the British Isles, please send a note of these to Lynne – who will personally take the information to the BRC (marked confidential if thought to be advisable) – Monkswood is only 7 miles 'up the road' from Godwin House ; Lynne will also send copies to the appropriate County Recorder.

Records of other species (not in the Red Data Book) please send direct to County Recorders – who will send on records to B.R.C., and submit to 'Plant Records' where appropriate.

Copies of the **Red Data Book** are available from Oundle Lodge at £3.20.

Code for Travellers.

This Country Code from the U.S.A. comes from the Ardingly Society Newsletter :

"Take nothing but pictures
Leave nothing but footprints
Kill nothing but time."

We know that even of these activities the first needs to be approached with caution (see *BSBI News* 21 p. 6). Following the 'Survival or Extinction' Conference at Kew in 1978, B.S.B.I. was asked to prepare a "Code for Travellers". A working party has been set up with representatives of the Threatened Plants Committee, the World Wildlife Fund and the Travel Operators, and it is hoped that a suitable code may be produced and offered to organisers of plant holidays and general tours. Collecting plants from abroad has been a tradition amongst horticulturalists and in the past it was the source of many of our most treasured garden plants. But with the decrease in remote places and an increase in the number of travellers, there are reports of serious damage to local plant populations from several countries. Taking plants from frequented routes can noticeably deplete plant communities along those routes. Reported from Corfu was a row of *Orchis papilionacea*, Pink butterfly orchids, shown to a party one week which was a row of holes in the ground the following week. Sometimes travellers who are most worthy members of their local County Trusts at home can be quite unscrupulous with their trowels when abroad. The D.O.E. Plant Collecting licence only allows import into Britain but does not give the free permission of the country visited to take plants from that country.

In April, 1979 the W. German Customs searched luggage of tourists returning from Mexico to Frankfurt and discovered entire suitcases filled with rare cacti and orchids – 3600 specimens were confiscated. Most of the tourists had been participants in an organised 'Cactus Study Tour' which had travelled 2500 km by bus in Mexico "collecting cacti by the roadside". The Institute for Systematic Botany and Plant Geography of Heidelberg University in whose custody the confiscated plants were placed by Customs reported that the specimens included "such newly discovered species as *Mammillaria laui*, not yet formally described," and that many were mature specimens of considerable age "many of which were damaged in the course of uprooting."

The B.S.B.I. party to the Carnian Alps in August 1979, (see report, on p. 5) they were shopping in a mountain village, with the coach driver helping to interpret, when the shopkeepers asked him why we had come to Italy. He replied, in *sotto voce* Italian, "To take all our mountain flowers away", thinking that we would not understand this aside. However we had been at work with the phrase book so we *did* understand and were able to reassure them that we had come to look and to photograph only. It did however indicate the impression that other visiting parties had left behind. On our return we offered our few specimens taken for identification and as vouchers for use at the University's chalet, but Dr. Erika, Prof. Pignatti's wife replied "You really should keep the few examples of plants you collected, you have been so modest and we do appreciate your attitude. I, too, have come to the opinion, to protect everything possible and to collect quite nothing ; it seems the only thing clever we can do in future in this world that has been changed already so unkindly by man."

Our thanks to Mrs. Kathleen Lawson for a heavy load of typing for this *BSBI News* 23. After family problems had kept her from her typewriter for 6 months, Kathleen tells me that she was glad to have the practice.

MARY BRIGGS

Tail-piece.

Confucius might have said that it is a sign of botanical maturity to understand that it is not possible to give a name to *every* plant.

CHANGES OF RECORDERS

The Records Committee at its meeting on 23rd October 1979 received with regret the resignations of Peter Hall for East Sussex and of Professor Charles Gimingham for South Aberdeen. Both have served their areas for many years and will be sadly missed. Peter also resigned from the Records Committee. He was a founder member who has worked long and hard for the Society and, as Secretary to that Committee throughout that period,I would like to record publicly my gratitude for his support over the years.
To fill these and other vacancies the Committee approved the following appointments:

V.C. 14	E. Sussex	R. Minor
V.Cs 25/26	Suffolk	At the request of F.W. Simpson Mrs. M.E. Hyde has been appointed as Joint Recorder
V.C.92	S. Aberdeen	P. Marren, NCC, Wynne Edwards House, 17 Rubislaw Terrace, Aberdeen.
V.C. 96	Easterness	Mrs. M. Barron
V.C. 103	Mull	Mrs. J. Clark

At the same meeting Rev. G.G. Graham was added to the list of specialists for *Rosa*.

The names of **Recorders** are listed at the end of your 'List of Members and Subscribers' against the v.c. numbers.

The *names* of the counties (and vice-counties) are printed opposite the v.c. map in *Watsonia* **13** part 1 (and planned to be published again in Vol. **14** part 1 in January 1982).

BSBI VISIT TO THE CARNIAN ALPS, ITALY,

31st July to 14th August 1979

Under the cheerful and efficient leadership of Mary Briggs a party of twenty members participated in this meeting to a part of the alpine region seldom visited by British botanical parties. A fuller account of the meeting will appear in *Watsonia.*

Travel to Carnia was by scheduled flight from Heathrow to Venice where we had an overnight stop with opportunities to view St. Mark's and the Doge's Palace, have a genuine Italian meal, and travel along the Grand Canal (by motor launch, not gondola !). After several hours' journey by private coach we arrived at the Passo del Pura (1,425m) near Ampezzo, where our base for the next two weeks was to be in the mountain hut Baita Torino, a modern chalet kindly loaned to the party by the University, of Trieste. With the chalet went the loan of an Italian botanist from the University Dr. Pierluigi Nimis, whose patient guidance was much appreciated. Our journey prior to this was not without incident. Two lady members were temporarily parted from their suitcases, inexplicably off-loaded during our plane's intermediate stop at Milan, then our planned stop in Ampezzo to procure three days' provisions (we were to be to a large extent self-catering) was not a little complicated by the fact that no suitable shops were open. All praise to our English-speaking coach driver whose efforts eventually opened all necessary doors.

The chalet, well provided with both domestic and study facilities, was beautifully situated among mixed spruce and beech woods in limestone country with a varied and interesting flora which could be explored within easy walking distance. Occasionally we ranged further afield using local coach and mini-bus transport. The botanical features of the meeting will be fully dealt with in the longer account, but one might mention the fascinating *Dryas* heath just by the roadside near the Baita, the drifts of *Cicerbita alpina* in the woods, the sight of *Cypripedium* in several places – alas no longer in flower, and the single spike of *Epipogium* in perfect condition which the photographers of the party queued to capture on film.

Life in the Baita was rather on youth hostel lines – bunk beds and self-catering. Rosalind Hadden was appointed domestic manager and cashier and soon had us organised in groups of three in a rota for household chores and catering. Meals consisted of continental breakfast and packed lunch prepared by ourselves, with a very adequate evening meal in the nearby Rifugio Tita Piaz (mountain inn) whose proprietors, Signor and Signora Troiero, welcomed us on the first evening with *vino* 'on the house'. Signor Troiero could not have been more helpful during our stay. As well as attending to his normal duties as 'mine host' he acted from time to time as travel agent, interpreter, banker and occasional transporter of personnel and supplies.

Our final evening meal at the Rifugio was followed by an impromptu sing-song featuring Italian mountain songs by an extremely talented local quartet alternating with rousing choruses by our party. 'La Montagnara' was somewhat incongruously followed by 'Ilkley Moor' ! A special table decoration provided for us for the occasion was a gathering of *Cirsium eriophorum* (and one *Cirsium palustre*) in a red bucket.

As a parting memento each of the party was presented with a small example of local craft work by *Signora Troiero,* just one of the many memorable incidents of a memorable fortnight.

ALLAN McG. STIRLING, 17 Austen Road, Jordanhill, GLASGOW, G13 15J.

Profile

D. H. KENT – RESEARCHER EXTRAORDINARY

It takes all sorts to make a world, and the botanical world is no exception. Looking back over the history of plant science – say in D.E. Allen's *The Naturalist in Britain* – one is struck by the extent to which our branch of science owes its advance to "individuals". Individuals whose talents were not always appreciated in their lifetime.

In this tradition stands D.H. Kent, and happily his genius and achievements are recognized by a wide circle of professional botanists. Though not cast in this mould, – he claims no formal academic training – he has accepted the calling and adopted the discipline of the true botanist - Like his friend J. Edward Lousley, he earned his living in a London Office escaping at every available opportunity to indulge his love of botany. Unlike Lousley, his elysian fields lay in documentary and literary realms from which he has plucked and preserved for subsequent generations much invaluable data. His incredible ability for searching, abstracting, classifying, indexing and exposition has earned him a permanent place in the annals of botanical history.

A Londoner born and bred he is no literary recluse but has made his talents freely available to fellows, and continues to do so.

For 26 years Douglas H. Kent, known to his friends as 'Duggie', has given his services to the BSBI which he joined in 1944 when it was still the Botanical Exchange Club. He was then mainly concerned with collecting data for a flora of Middlesex, which led to a long co-operation with Ted Lousley. This came to fruition in their *Handlist of Plants of the London Area* (1951 – 57). In the meantime the Society was being reorganised, largely under the guidance of Lousley who had become its secretary in 1950, persuading Duggie to become Assistant Secretary in 1953 when as such, he edited the last 'Year Book' which completed the re-organisation. He became the editor of the new *Proceedings* in 1954, an office he held until 1966. This was much more than mere editorship for in this period he was responsible for all matters of membership, now the work of another officer, the standing orders for our journals and the revenue from advertisements – in fact in this period the Society revolved around Duggie. But above all it was in these years that he was launching 'Abstracts' as an item in *Proceedings*. He was admirably suited for this task as much of his work on the Middlesex flora, which still continued, entailed delving into published work and was equally involved with the examination of herbarium material and with the biographical details of other botanists, dead and living.

It is not surprising that his first independently published work should be *British Herbaria* (1957), containing more useful information per page than any other work of its kind. His *Index to Botanical Monographs* (1967) deserves to be better known than it is. The long awaited *Historical Flora of Middlesex* (1971) is his greatest achievement, leaving the reader at times to ponder, for by no means all the data he collected are presented in this monumental work. Meanwhile he continued to contribute 'Abstracts' to *Proceedings* until this journal ceased to be published in 1969, since when *Abstracts* has appeared in its own right as a separate publication, the full responsibility for which is Duggie's. It is a record of which anyone might feel proud, as *Abstracts* is read from cover to cover by many who have little or no interest in all the remainder that the Society thinks fit to publish. But Duggie is not a man to take pride in anything that he has achieved for him there is a job for someone to do and failing others he will do it.

His ability to face tasks that would deter many others is, however, exceedingly rare, as witnessed by his undertaking the mammoth task of a handbook on the *Polygonaceae.*

He is a man of very definite views but shows little interest in some of the Society's activities. For example, I do not remember him ever expressing any opinion on nature conservation beyond that there is not much in Middlesex these days worth saving. He has only a passing concern for rare or beautiful plants – others may climb Ben Lawers, tramp across Teesdale, poke around the Lizard, while he is content to occupy *his* seat at Lords, praying for the season to come when Middlesex will again have 'a good team'.

Duggie is in every respect unique. The Society owes much to him, more than could be expressed in giving him honorary membership in 1966 and feeling that it too had, by providing a channel for his rare ability, been of some assistance to his being awarded the Bloomer Award by the Linnean Society in 1977. The Duggie Kents of this world are few and far between and we are privileged to have him in our midst.

J.G.D.

WILD SERVICE TREE SURVEY

A Progress Report

The work of analysing the thousands of records sent in by BSBI members and the general public continues. A picture of the distribution and history of the tree in the vice-counties from which it has been recorded is being built up and these accounts will be checked by county recorders, naturalists trusts and county arboricultural officers. The latter, as it turns out, often have a number of their own records that have not been reported through the usual botanical channels. A good indication of how under-recorded the Wild Service (and by implication many other plants) still is, occurred recently when a local archaeological society made contact with me. They had been surveying hedges in a neighbouring parish and were using the presence of the Wild Service as an indicator of antiquity ; quite unwittingly they had recorded a considerable number of new sites for the tree.

The status of the Wild Service in Scotland remains a mystery. No exact location can be traced for an old, but seemingly reliable record from Dumfriesshire, but I badly need a volunteer to visit the site in Ayrshire from where a tree is reported as "in a hedgerow". This was in 1965 at Loudon Kirk, near Galston (OS ref. 492 375). If anyone can get there and if they do find the Wild Service, I should like examples of the leaves (fallen ones if in winter) and a much fuller description of the location. It is important to try and assess whether the tree is natural or planted and to know what sort of a hedge it is growing in. So far there is no confirmed record from Scotland, but if it does grow naturally this far north, hypotheses on the post-glacial history of the tree in Britain would be significantly different.

PATRICK ROPER, South View, Sedlescombe, BATTLE, Sussex.

FERN ATLAS – additional records

Any record of *Ferns* new to *'An Atlas of Ferns of the British Isles'* should be sent to: MR. A.R. BUSBY, Recorder, British Pteriodological Society, University of Aston, Dept. of Bio. Sciences, Gosta Green, BIRMINGHAM, B4 7ET., who is co-ordinating the records of Ferns for both B.S.B.I. and B.P.S.

ALIENS and ADVENTIVES

ADVENTIVE NEWS 15

Compiled by Eric J. Clement

SOME WOOL ALIENS

In July 1976 the Rev. C.E. Shaw found a patch of wool waste at Colne Bridge, on the outskirts of Huddersfield (S.W. York) : three plants were sent to me for checking – *Trifolium angustifolium* L., *T. hirtum* All. and *Psoralea cinerea* Lindl. The *Psoralea* is much the scarcer of the three in shoddy, but in 1973 it occurred at both Blackmoor (N. Hants) and at Clophill (Beds) – Hb. EJC. Hilary Broad's beautiful drawing is of a 1976 plant from Maulden (Beds). This Australian species, with inconspicuous pink or purplish flowers, 3–4 mm long and just exceeding the calyx, has not attracted the attention of artists : the only previously published portrayal appears to be in *Queensland Agricultural Journal* n.s. **10** : 253, dated 1918. *P. americana* – drawn in *BSBI News* 18, p. 14 – is a much coarser plant with a shaggy calyx and larger, whitish flowers (7–9 mm), and everywhere much more conspicuously glandular-dotted : it is unknown as a wool-alien.

In Sept 1977 CES found *Trifolium cherleri* L. (det. EJC, as "the typical form of the W. Mediterranean") on some wool dust at Delph, near Oldham (S.W. York). Further inspection by CES round Pingle Mill at Delph in Oct 1978 produced (all conf. EJC) *Bromus* cf. *molliformis, Medicago minima, M. praecox, M. polymorpha* (a small-fruited, near spineless form), *M.* cf. *truncatula* (v. immature), *Trifolium arvense* (looking unlike the Br plant !) and *T. cernuum*.

Dumped wool cardings or "devilings" are always worth careful inspection for aliens, but wool cake – from the bottom of the scouring vat – may have no viable seed if excessive H_2SO_4 (sulphuric acid) was used in the vat during processing.

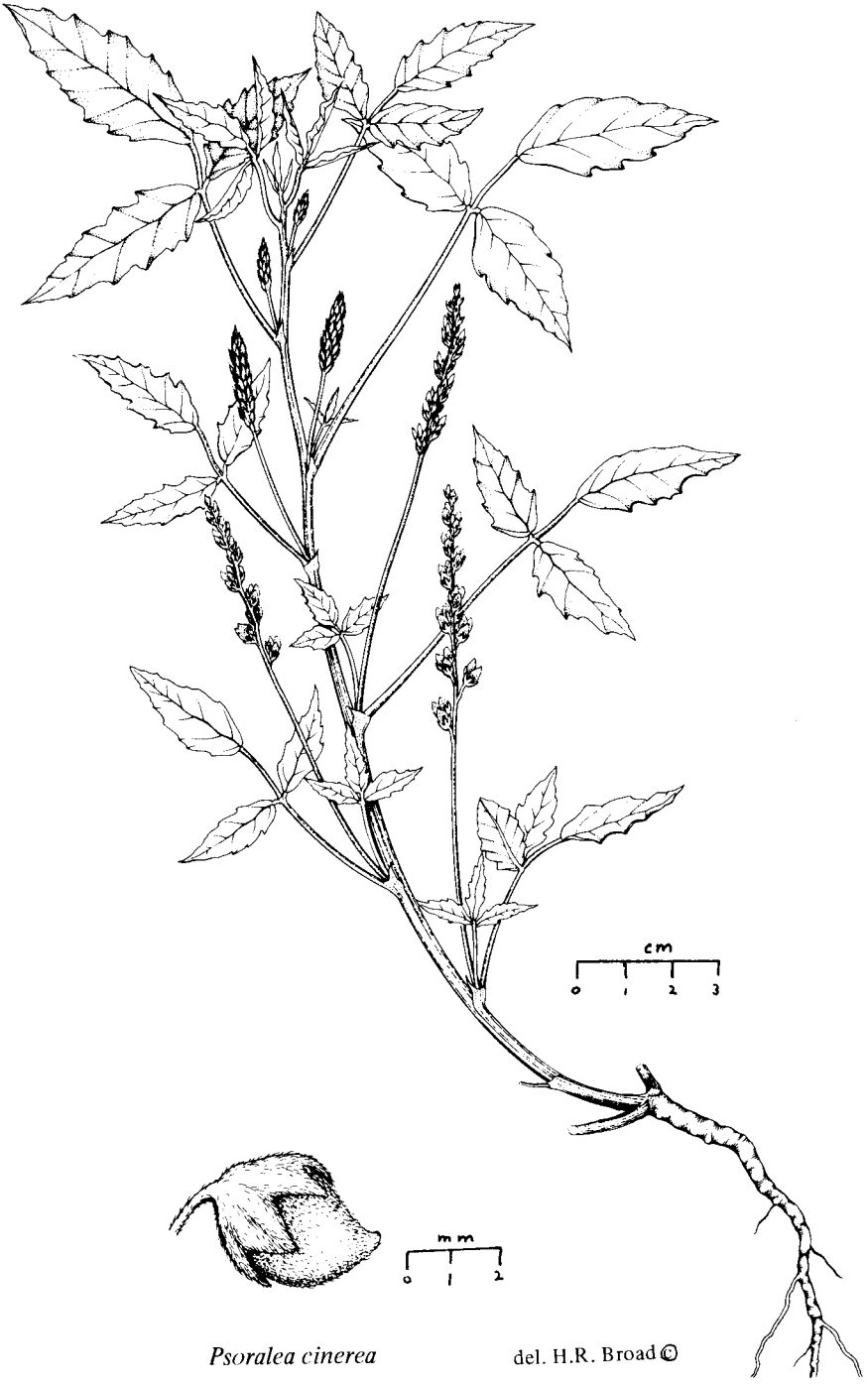
LENTIL SEED ALIENS

The quantity of 'contaminant' in lentil seeds, first mentioned in *BSBI News* 13, p.22, is remarkably high. During 1977 Mrs. M.J. Oldaker extracted rogue seed from packets of cooking lentils (*Lens culinaris* Medicus) , marked "produce of Turkey", and cultured them. Up came (all conf./det. EJC) *Convolvulus althaeoides* ssp. *althaeoides, Galium tricornutum, Lathyrus aphaca, L.* cf. *inconspicuus* (lflets exceptionally broad, and erect pods shorter than normal ; Hb. EJC), *Myagrum perfoliatum, Vicia ervilia, V. hirsuta* (a curious l-fld form), *v. michauxii* Sprengel (Hb. EJC) and *V. sativa s.l.*

Late the previous year another packet, presumably of USA lentil, gave several seedlings that soon perished, but *Commelina communis* L. (or a close relative ?) managed to flower. "It lived up to its popular name of Day Flower as it produced two small, bright blue flowers enclosed in the large sheath, which only lasted a few hours and never really expanded." In 1979 further cultures by MJO of lentils, marked as produce of USA, developed into *Hordeum distichon, Galium tricornutum* and *Lathyrus aphaca.*

MIXED BAG

Aconitum vulparia Reichenb. : River gravel, S. of Wolsingham (Durham), July 1979, GR 45/08.36. Mrs. M. Burnip (NNU outing), comm. Rev. G.G. Graham. **BM.** Conf. EJC. Flowers pale yellow. As it readily sets seed in gardens, this record did not surprise me. It is also reported by Mr. Strachan to be well-established in woodland near Hassop Hall (Derbys), 1971, GR 43/22.72 (approx). Is it elsewhere ?



Psoralea cinerea del. H.R. Broad ©

Allium subhirsutum L. : Steep bank below houses, Stratton, near Bude (E. Cornwall), May 1978. L.J. Margetts. Hb. EJC. This species is sometimes wrongly distributed in place of *A. neapolitanum* Cyrillo, a similar and much prettier subject. This record means that three white-flowered alien alliums without bulbils in their inflorescence occur in S.W. England and Isles of Scilly – they may be separated as follows :-

Plant smelling of garlic; stem cylindrical, without prominent angles; lvs ciliate (sometimes sparsely and evanescent); fls erect, not secund . . *A. subhirsutum*

Plant not smelling of garlic; stem trigonous, with 2 acute angles & 1 obtuse; lvs not ciliate; fls erect, not secund . . . . . *A. neapolitanum*

Plant smelling of garlic; stem acutely trigonous; lvs not ciliate; fls pendulous, secund . . . . . *A. triquetrum*

Amaranthus bouchonii : On shoddy-like heaps bordering Emilys Wood, Weeting (W. Norfolk), Sept 1979. B.R. Fowler. Det. EJC. This is undoubtedly an overlooked species *cf. BSBI News* 19, p. 12). No key accompanied Graham Easy's fine, diagnostic *Amaranthus* drawings (incl. this sp.) in the last *News*, as this is already available in *Watsonia* 4 : 264-266 (1961), as well as *Flora Europaea* 1 : 109. Note that in order to name the species, ripe fruits are often essential.

Downingia elegans : Ardingly Reservoir (E. Sussex), Sept 1979. Comm. Mrs. M. Briggs & Miss M. McCallum Webster. Det. EJC. There were about 40 plants, with 2–4 stems each, mainly less than 6 ins. tall in full flower, stretching along ¼ mile at the water's edge, amongst *Juncus bufonius, J. kochii,* etc. Presumably introduced with grass seed sown on the recent completion of the new reservoir building, but it was far more common on the open mud below the grass. MB confirmed that the adjoining Wakehurst Place (an outstation of Kew Gardens) do not grow this species ! The very attractive, bright blue flowers have a white centre, and its general appearance is "rather like a cross between a *Lobelia* and a *Legousia*," as MB put it. Pam Haddon very kindly visited the site and provided us with the fine line-drawing reproduced opposite. Note how, orchid-like, the ovary is twisted 180° so as to invert the flower. Also present, and new to the area, were lush and non-typical plants of *Centaurium pulchellum* (conf. EJC) and ordinary-looking *Mentha pulegium*, both of which *could* have also come from N. America where they are naturalised.

Of *Downingia* at Milton Keynes (*BSBI News* 21, p. 14) I heard no more, but at Newport Pagnell (*BSBI News* 20, p. 10) "not nearly so many plants" reappeared in 1979. Seed (of 1978) from the latter site also produced lovely garden plants for Mrs. M.C. Foster at Bexley Heath (Kent) this year.

Lathyrus annuus L. : Weed in Miss B. Sturdy's garden, Gulval, near Penzance (W. Cornwall), June 1979. Comm. L.J. Margetts. Conf. EJC. **RNG.** (See drawing in *BSBI News* 18, p.12).

Lavatera trimestris L. : This well-known, mallow-like garden annual regularly, but infrequently, pops up as a casual in Br ; four recent examples are :

Roadside soil, near Countesthorpe (Leics), 1975. Mrs. E. Hesselgreaves. Det. T.G. Tutin. Two plants, growing near to *Linum usitatissimum* (and thereby suggesting bird-seed origin).

Casual (probably from bird-seed) in garden, the Lizard (W. Cornwall), 1976. Comm. Mrs. B.E.M. Garratt. Det. EJC.

Chicken run, Sansons Farm, near Wootton (Oxon), 1977. B. Campbell, comm. Dr. H.J.M. Bowen.

Downingia elegans

Sea-cliffs, Happisburgh (E. Norfolk), Aug 1978. C.G. Hanson. Hb. CGH. Conf. EJC.

In my own herbarium are specimens from refuse tips at Greenhithe (W. Kent) in 1965 and Fairlop (S. Essex) in 1969. Jill Smythies' splendid drawing on our cover of a May 1979 plant in S. Spain (at Coín, prov. Málaga) vividly shows up all the botany of the species : the flowers solitary in the leaf-axils, the 3 epicalyx-segments shorter than the sepals and united for most of their length (cf. free in all *Malva* spp.), the curious, disc-like cover over the mericarps, and the simple (or few-rayed), deflexed hairs of the stem.

Misopates calycinum Rothm. : *Swoop* (wild-bird food) alien, Didlington, Thetford (Norfolk), July 1978. Miss V.M. Leather. Det. EJC. Also present were *Bupleurum subovatum, Melilotus indica* and *Phalaris canariensis*. It differs from *M. orontium* (fls 10–17 mm) mainly in the larger (pinkish –) white flowers (18–22mm) which are strongly veined in pink-purple. It is, not surprisingly, often treated as a variety, only, of *M. orontium*. It has been mistaken for a *Linaria* sp., but noting the absence of the flower spur should preclude this error.

Published records are very few, but it does occur regularly as a bird-seed alien. More unusual was its appearance on ballast gravel at Ealing Broadway Station (Middlesex), Sept 1971. Mrs. J. McLean. Hb. EJC.

Navarretia squarrosa (Eschsch.) Hook. & Arn. : Weed in rose-bed of well kept garden, Carr Bank, Milnthorpe (Westmorland), Aug 1979. Comm. Mrs. M. Baecker. Hb. EJC. First seen here in 1978 ; there were 2 plants in 1979. A weedy member of the *Polemoniaceae* from N.W. America, where it is known as Skunkweed, all parts of the plant being covered with glandular hairs which emit a disagreeable skunklike smell when fresh. Its bluish, sessile flowers are hidden amongst conspicuous pinnately to palmately cleft bracts – see drawing in RHS *Dictionary of Gardening*, p. 1358, but does any gardener really grow this unpleasant annual ? Its origin here is a mystery, and I have received no other Br records for it.

Salix cordata Muhl. : A well-established plant (c. 2 x 4 metres x c. 2 m high) in marsh beside a stream, Sutton Park (Warwick), June 1979. B.R. Fowler. Det. R.D. Meikle (at Kew). Native of N. America, and "probably introduced" here. Female catkins were present. I know of no previous claims of its naturalization in Br.

Trifolium lappaceum L. : Waste ground (site of demolished houses), Hoddesdon (Herts), July 1977. Mrs. A.M. Boucher. Hb. AMB. Det. Dr. J.G. Dony. Records for this sp. are rather few ; for a drawing and description, see *Wild Flower Magazine* 371 : 25 (Autumn 1974).

Thymus vulgaris L. : Several plants on steep bank below houses, Stratton, near Bude (E. Cornwall), May 1978. L.J. Margetts. Conf. EJC. **RNG.** Upright and bushy in growth, quite unlike our native species. It is more likely that this plant is overlooked as belonging to some other herbal genus – e.g. K.E. Bull tells me that the reported *"Hyssopus officinalis"*, plentiful on an old wall at Eastchurch, Sheppey (E. Kent), is in reality this Garden Thyme. It was still there in 1974. In the wild it is a very variable plant, common in the W. Mediterranean region.

MORE ABOUT *CRASSULA HELMSII*

Recent records of this Australasian waterweed abound ! – see *BSBI News* 17, p.19; 19, p. 10 ; 20, p. 15 and 21, p. 19: and a detailed drawing in 22, pp. 20,21. More localities (but not exhaustive) are given below, several of which were claimed as *C. aquatica*.

But, first one correction : the Epsom (Surrey) record for the S. African succulent (unknown in cult. in Br), "*Crassula recurva* N.E. Brown", in *Watsonia* **11** : 395 (1977) should, of course, have been for *C. recurva* (Hook. f.) Ostenf., non N.E. Brown, a synonym of *C. helmsii*. It was repeated (correctly, but with varying details) in *Watsonia* **12** : 353 (1979) without any comment. Two separate species are *not* involved !

In pond, Monken Hadley (Herts), Aug 1976, GR TQ/253.973. Mrs. A.M. Boucher. Det. G.A. Matthews.

Appeared at edge of a garden pool, Tonbridge (W. Kent), Aug 1977. Dr. S.L. Melville, comm. E.G. Philp. Hb. EJC. "This has now been traced back to a nurseryman near Tunbridge Wells."

Forming a sward by the edge of the old gravel pit at Lossiemouth (Moray), Sept 1978, GR 38/23.69. M.S. Marshall, coll. & comm. Miss M. McCallum Webster. **E, BM, CGE & ABD.** Conf. EJC. "Probably introduced with other plants recently planted there, e.g. *Typha* and *Caltha*." This material also resulted in Lysbeth Richards' drawings in the last *News* (drawn before Helen Aston's illustration in *BSBI News* 19, p. 11 appeared).

Small, wet hollow in old borrow-pit, near Hatchet Pond, Beaulieu (S. Hants), Sept 1978, GR 41/369.013. R.P. Bowman. Conf. EJC.

Garden pond, Winsley, Bradford-on-Avon (N. Wilts), Sept 1978. J.L. Presland. Det. EJC. "This plant with tiny cream flowers is rampant in my pond. If it didn't arrive naturally, it either came with oxygenating plants which I bought or else I introduced it from a northern beck."

Aquatic plant, fished from partly frozen, small, ornamental pond, Spa Gardens, Felixstowe (E. Suffolk), Jan 1979. Mrs. E.M. Hyde & M.A. Hyde. Det. EJC. With *Elodea canadensis*.

Old brick works, Littleborough, near Rochdale (S. Lancs), Sept 1979. D. Smith, comm. Rev. C.E. Shaw. Det. E.F. Greenwood & C.A. Stace. "The station should be permanent. The plant must have been there for years."

As this species appears to be nowadays widely sold for both cold aquaria and as "one of the finest submerged oxygenating aquatics" for garden pools, where it "keeps its character throughout the winter months", further widespread occurrence can be expected (quotes from *Perry's Hardy Plant Farm* catalogue, 1975). In many sites it is obviously impossible to know if introduction has been natural, accidental or purposeful.

MANURE ALIENS IN DORSET

In late 1976 A.W. Graveson found and photographed an unusual assemblage of aliens in a ploughed field near Stoke Mill, NW of Bridport (Dorset). Prominent were some fifty plants of *Xanthium spinosum* and about twenty of *Datura stramonium* (nearly half of them as var. *tatula*); singletons of *Carthamus lanatus, Chenopodium* cf. *giganteum, Heliotropium europaeum, Hyoscyamus niger, Marrubium vulgare* and *Sorghum halepense* completed the haul. All Hb. AWG, conf. Dr. J.G. Dony & EJC. Careful field notes confirm that no other aliens were present – a remarkable lack of *Medicago, Erodium*, etc. spp. if wool waste were responsible !

The owner, Mr. G. Hazell, very kindly supplied the detailed history of the field (O.S. 419, SY/424.970) since 1942. The relevant year was 1964 when grass-seed was sown and "the field was partly dressed with 'cleansings' from leather manufactors which contained

animal fat, hair, leather offcuts and heavy lime content. At the same time the field was partly dressed with manure from the farm cow stalls, etc. At this particular time a quantity of wool manufacturing waste or 'shoddy' was being used in addition to straw for bedding." The next re-ploughing was early in 1976, when normal farm manure was used, and grass mix was again sown, but I suspect all the above species germinated from the 12 year old, buried seeds.

WOOL ALIENS IN SOMERSET

J.G. Keylock visited the Glastonbury tip (N. Somerset) in 1970 and 1971 with C.E. Shaw & the late C.A. Howe. Their finds were (mostly verified by J.E. Lousley): *Agrostis avenacea, Cynodon dactylon, Erodium botrys, E. cygnorum, E. obtusiplicatum, Hordeum glaucum, H. hystrix, H. pubiflorum* (still in cultivation, 1978, by JGK), *Medicago polymorpha, Polypogon monspeliensis, Rumex brownii, R. obovatus, Xanthium saccharatum* Wallr. (det. Prof. Widder, in Austria), *X. spinosum* and *X. strumarium. Bocconia cordata* was also listed, but was surely from a garden root ?

Clarks & Morlands Ltd. shoe factory has used this tip regularly for dumping wool waste, but treatment of the hides has changed considerably in recent years and the sites now have little of alien interest. According to the under manager English fleeces only are used now at Glastonbury, the foreign ones going to their factory in Cornwall (comm. CEH). JGK *et al.* visited the factory site in 1977 but found only *Polypogon monspeliensis*: A.C. Leslie was there in 1971 and found additionally *Avena barbata* – and *Aponogeton distachyos* in a water tank (introduction with wool is unlikely ?)

CES tells me that Fox's (W. of England Cloth Factory) Mill at Wellington (S. Somerset) has both *Medicago polymorpha* and *Polypogon monspeliensis* established, pre-1977–1979, but nothing else of interest. The nearby sewage works has recently been a richer hunting ground for aliens, but was apparently unvisited in 1979.

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

A new plant artist

We welcome in this issue a talented young artist making her debut in *BSBI News* and indeed into the world of plant illustration, for she hopes to make this her career. She is Pamela Haddon from Rye, and judging by the quality of her drawings of *Downingia elegans* and the enigmatic Bexhill *Epipactis* she should be very successful.

BSBI members could help her on her way by recommending her to anyone requiring accurate botanical portrayal.

BSBI NEWS 24
Contributions intended for publication in this issue must reach the Editor BEFORE 17th FEBRUARY 1980

THE RANNOCH UNRUSH

On 22nd July, Tim Blackstock, Peter Hope-Jones and myself set forth to meet Jane McIntosh at Rannoch Station. The purpose of our trip was to record *Scheuchzeria palustris* (Rannoch Rush) and to search for new colonies. Having been within striking distance several times before, but never having reached the Station, I was not to be hurried and the events of the day are probably best expressed in the following way :

0900 Started off from Kindrogan in Tim's car for Rannoch Station.

1015 Found petrol on a Sunday morning at Kinloch Rannoch, hurrah ! Asked the garage man to investigate the whining noise under the bonnet.

1030 Disaster, splitting fan head diagnosed. 'It may get you there, but on the other hand . . . . . '

1035 'Phoned the hotel marked on the map at Rannoch Station. Sent message to Jane via 'hotel runner' to say we had broken down.

1040 'Phoned Kindrogan to say we might need a tow back and discovered Jane had 'phoned Kindrogan also to say she had not understood my message via runner.

1050 'Phoned hotel runner again, gave them my number at Kinloch Rannoch and asked Jane to 'phone me.

1055 Jane 'phoned me. She very kindly came to fetch us and after coffee at Kinloch Rannoch (where there is an excellent hotel with a payphone and helpful staff), we drove to Rannoch Station.

1145 Arrived at Rannoch Station, went into the hotel there to thank the receptionist and runner.

1200 Found *Scheuchzeria palustris*.

You may think that is the end of the story, but as the title may indicate, it is not.

1315 Set off down railway track to visit Rannoch Moor NNR.

1530 Found a new locality for *Scheuchzeria*.

1555 Fell in a bog measuring the extent of the colony and had to be dragged out

1730 Arrived back at Rannoch Station. Drove to Kinloch Rannoch.

1830 Changed to Tim's car and proceeded in convoy to Kindrogan. Broke down 5 miles outside Kinloch Rannoch – fan head finally split. Jane drove us back to find the garage man in Kinloch, who agreed to mend the car next week.

1930 We abandoned Tim's car, unpacked all the camping and scientific gear needed for our trip to Shetland next day, and 'phoned Kindrogan to say we'd be late for dinner.

2100 Arrived at Kindrogan after an unrushed day, but with the satisfaction of finding a new locality.

LYNNE FARRELL, Nature Conservancy Council, P.O. Box 6, Godwin House, George Street, HUNTINGDON, PE18 6BU. *(PS.* Don't trouble to ask the expedition members to reveal the exact locality; their lips are sealed.)

THE SUSSEX *EPIPACTIS* SAGA

At the London Exhibition Meeting in November 1978 Tony Hamilton showed us pictures of a pale green *Epipactis* sp. that had been found in 1977 in the orchard grass of his new home in Bexhill-on-Sea in East Sussex and also in the adjacent neighbour's garden. There was speculation then on its identity, and the possibility that it might perhaps be *Epipactis muelleri* was put forward. B.S.B.I. members' attention was drawn to the possibility of this species occurring in South East England by Dr. J.T.H. Knight (see *B.S.B.I. News* 15, p 24). With its continental distribution apparently now extending to Northern France, Bexhill would seem to be strategically placed for a possible "invasion" across the Channel.

In August 1979 when the colony was again in flower an "Epipactis Seminar" was held in Tony's garden. David Lang had meanwhile, through his orchidologist contacts in Holland and Switzerland, obtained translations of 8 papers on *E. muelleri*, to augment the rather sparse information available at present in English. He brought with him a precis of these translations and with this information to hand the plants and flowers were examined, measured, photographed and recorded.

Meanwhile Pam Haddon was sketching a specimen and her drawing is reproduced on p 17. The occasion was written up by the local press whose journalist was in attendance and photographs of the orchid appeared in the October 1979 issue of *Sussex Life*.

The only missing factor is a positive pronouncement on identification. The consensus of opinion of those present was against *E. muelleri* because of a number of variants from the continental descriptions of characters for that species (in particular the presence of a rostellum in the Bexhill plants – said to be absent in *E. muelleri* in all but one of the continental references). However there is some support for the possibility of it being *E. muelleri* and further news on the identification of this interesting plant will be published as soon as it is available.

M. Briggs, A.G. Hoare, A.P. Hamilton, D.C. Lang, Oct. '79

GOOD LIFE ON THE HARD SHOULDER

This is the title given to a piece appearing in the AA's magazine ***TRAIL***

"Britain's motorways," it says, "are fast becoming vast nature reserves, a haven for flora and fauna, safe from the ravages of man.

Every mile of motorway has 12½ acres of verge and central reservation. Multiply that by the 1,5000 miles in Britain and the country has a reserve covering nearly 20,000 acres", says ***TRAIL***, "In which many plants and animals have adapted to the hazards of traffic, fumes and road salt. In any case these drawbacks are far outweighed by some positive advantages : security from the farmer's chemical spray and the casual vandalism of trespassers. Protected from the interference of man by a boundary fence on one side and a hard shoulder on the other, a motorway corridor is not a bad place to settle in. A count on a short stretch of the M1 revealed 67 types of insects, while other studies found 56 varieties of birds and 384 species of plants all happily flourishing in their new found environment."

The Bexhill Helleborine

NOTICES

OFFICIAL BSBI NOTICES

THE ROYAL METEOROLOGICAL SOCIETY and the B.S.B.I. are planning a joint meeting on CLIMATE AND PLANTS in UNIVERSITY COLLEGE, LONDON on SATURDAY 26th APRIL 1980 10.30 – 17.00

The programme will include the effect of radiation, water, temperature and light on plant growth. Frost and disease will also be discussed and there will be time for a general discussion.

Papers and speakers will be published in *BSBI News 24 (April 1980)* but Registration forms will be available in February, 1980. Will members interested in attending this meeting please send for application form and details to : Mr. R. RATCLIFFE, Executive Secretary, Royal Meteorological Society, James Glaisher House, Grenville Place, BRACKNELL, Berks. RG12 1BX enclosing s.a.e. (22 x 11 cm. approx) as soon as possible.

This meeting is one of an established series of day lecture meetings arranged by the R.M.S. mainly for the amateur members of that society. To hold a joint meeting was prompted by David Allen's researches into the early history of the B.S.B.I., which led him to trace information on members of the Botanical Society of London from 1836 1856. He found that 4 out of 15 original officers and Council were meteorologists, and also at that time office-holders in the Meteorological Society of London. Mr. Allen presented an exhibit on this at the Annual Exhibition Meeting 1978, and his contact with the present R.M.S. led to the idea of this joint meeting.

BSBI RUBBER STAMP

This is an impression, actual size, of the rubber stamp now available from

F. & M. PERRING, BSBI Publications, Oundle Lodge, Oundle, PETERBOROUGH, PE8 5BG.

The price is £2.50 (incl. p & p)

It is hoped that all BSBI members will obtain one of these **AND USE IT** on the envelopes of all their correspondence.

BIOLOGICAL ASPECTS OF RARE PLANT CONSERVATION.
KING'S COLLEGE CAMBRIDGE.
JULY 13 – 19 1980

For full programme and application forms and further information please write to Dr. Hilary Birks, The Secretary, International Conference Office, University Botanic Garden, Cambridge CB2 1JF, England.

Theme 1. Assessment of Threatened Species – survey of techniques.

Speakers : G. Ll. Lucas, U.K., E.S. Ayensu, U.S.A., S.K. Jain & A.R.K. Sastry, India. H. Synge, U.K. A. Medwecka – Kornas, Poland. D.R. Given, N.Z. L. Beloussova, U.S.S.R., O. Nilsson, Sweden. G. Crompton, U.K. G.W. Argus, Canada. A. Terpo and C.E. Balint, Hungary. S.D. Hopper, Australia. J. Blakemore, U.K.

Theme 2. Monitoring of wild populations – Techniques for recording changes.

Speakers : G.T. Prance, U.S.A. S.P. Bratton & P.S. White, U.S.A. A.J. Davy, Canada. M.E. Bradshaw, U.K. O.B. Williams, Australia. C.D. Piggott, U.K. A.H. Fitter, U.K. L. Farrell, U.K.

Theme 3. Autecological Studies – Case histories of rare species.

Speakers : A. Gomez-Pompa, Mexico. J.L. Harper, U.K. A.R. Watkinson, U.K. T. Woodings, U.K. J. Greig-Smith, U.K. S. Prince & T. Hare, U.K. T.A. Rabotnov, U.S.S.R. T.C.E. Wells, U.K. C. Boucher, South Africa. L.K. Ward, U.K. E.V.J. Tanner, U.K. J. Sarukhan, Mexico. J. Dransfield, U.K. D.M. Henderson, U.K.

Theme 4. Introduction and reintroductions. Ethics and practice.

Speakers : B. Green, U.K. D.S. Ranwell, U.K. R.C. Buckley, Australia. B.S. Brookes, U.K.

Theme 5. Establishment and management of Reserves for threatened species.

Speakers : P.S. Ashton, U.S.A. D.A. Wells, U.K. J.J. Fay, U.S.A. L. Godicl, Yugoslavia. P.S. White & S.P. Bratton, U.S.A. L.C. Frost, U.K. A. Gomez-Pompa, Mexico. N. Myers, Kenya. S.M. Walters, U.K.

There will be excursions to Chippenham, Wicken Fen, Ely and to Devil's Dyke, Cambridgeshire.

OTHER NOTICES

NEWS OF NATURE RESERVES

Peak District

SPNC announce the purchase of a 105-acre site on the slopes of Southerscales Scar Ingleborough, internationally important as a fine example of a 'limestone pavement' habitat, now becoming scarce through the depredations of rock garden landscape architects. The humid atmosphere of the water-worn grooves and fissures provides a unique habitat for such rare species as Bloody Cranesbill, Solomon's Seal, and dark red Helleborine.

North Wales

Purchase by the N. Wales Trust of a 5-acre site near Treddur Bay, Anglesey will ensure protection for the spotted rock rose *(Tuberaria guttata)*, a vulnerable species quoted in the Red Data Book. The site is a Grade 1 SSSI and also contains spring squill, allseed, and birdsfoot.

BATRACHIAN *RANUNCULUS* GUIDE

Because of the increasing numbers of requests for this, additional copies are having to be printed, and to offset some of the costs involved,will those asking for copies please enclose a P.O. for 50p. with their letters to :
Dr. N. HOLMES, N.C.C., Godwin House, George Street, HUNTINGDON, PE18 6BU.

SCOTTISH FIELD STUDIES COUNCIL

A field assistant is required at the Kindrogan Field Centre as soon as possible for one year. Details from the Warden, Kindrogan Field Centre, Enochdhu, Blairgowrie, Perthshire, telephone Strathardle (025081) 2860.

PUBLICATIONS ON BEES AND BEEKEEPING

The IBRA has just issued two new catalogues, both giving full details of each publication listed.

List 1 : Publications of the International Bee Research Association has about 130 items, including visual aids.

List 2 : Book Selection of the International Bee Research Association describes more than 100 books, leaflets and visual aids on beekeeping topics, issued by other publishers throughout the world, but available from IBRA.

Copies of both Lists may be obtained from : International Bee Research Association, Hill House, Gerrards Cross, Bucks SL9 0NR, England, for 25p.

NEW BIBLIOGRAPHY SERIES FROM NCC

Three titles are now available.

Number 1, *Nature Conservation and Agriculture*, with over 140 references, is divided into sections which include such topics as Agriculture; Present Situation and Future Trends; Farming and Wildlife Exercises; Landscape Changes; Hedges and Hedgerows; and Birds and Farming. (£1).

Number 2, *Wildlife in the City*, (over 100 references), is also linked to a specific project launched by NCC in 1979 and intended to support the concept of a place for nature in the urban environment. It is divided into various sections including 'The Need for Urban Wildlife', 'Dormant and Vacant Land', 'Community and Voluntary Action', and, 'Environmental Education and Urban Wildlife'. (£1).

The third title, *The New Forest*, (over 500 references), is the first full bibliography on this important area and covers general, historical and scientific works dealing with various aspects of the Forest. Books, articles and scientific papers in published journals, reports, theses and dissertations are included. Works of fiction set in the New Forest are excluded. Sections include : Guide Books, History, Archaeology, Botany, Geography etc. (£2).

These are obtainable, post free, CASH WITH ORDER, from :
Bibliography Series, Nature Conservancy Council, Information and Library Services, Calthorpe House, Calthorpe Street, BANBURY, Oxfordshire, OX16 8EX.

BOTANISING ABROAD IN 1980 ?

BSBI members who will be leading parties in 1980 include :-

Gillian & Ken BECKETT	Mary BRIGGS
Eric CLEMENT	Alan NEWTON
Frank PERRING	John RICHARDS

Visits will be made to :

Austrian Tyrol	Crete
Dolomites	Jugoslavia
Majorca	Portugal
South Africa	Southern Spain
Swiss Alps	Russia (Samarkand Tashkent)
	etc.

Further details can be obtained from :-
Cox & Kings, Vulcan House, 46, Marshall Street, LONDON, WIV 2 PA.

THE BOTANICAL GARDEN OF EUROPE

Members relieving the gloom of winter days by planning next year's touring may be interested in the following note from Cliff Holliday, FPS, who lives in Lausanne.

Switzerland is rich in Botanical Gardens, many not well-known to the general public but of considerable interest to the botanist. Visitors entering Switzerland from France, may pass through the little-known district of Porrentruy, also known as Ajoie, situated in the Swiss Jura between Delle and Delemont. It is well served by road and rail with Berne and the High Alps. Apart from the beauty of the countryside, the valley of the River Doubs and such ancient villages as St. Ursanne, it is well worth exploring botanically. Here grow species of plants rarely found elsewhere in Switzerland such as *Myosurus minimus, Polygala calcarea,* and *Seseli montanum.* **Porrentruy** is the home of the second oldest Botanical Garden in Switzerland, founded in 1795. (Bâle, 1588, Geneva, 1817.)

Originally laid out to the plans of Antoine-Laurent de Jussieu it was reorganised in 1831, but at the beginning of the present century it suffered through neglect. Now, under the direction of Professor Francois Guenat, it is one of the more delightful of the smaller Botanical Gardens of Europe both aesthetically and scientifically, particularly valuable for the distribution of seeds, the current list of which collected from species growing there, numbers some 500 species.

In 1961 new greenhouses were opened and these alone justify the effort made to visit this little-known part of Switzerland for they contain a remarkable collection of over 300 tropical plants, about 200 species of orchids, as well as ferns, water plants, cacti and carnivores which are grown and exhibited in a fashion of which even Kew might be proud :

The address of these delightful gardens is : Jardin Botanique, 22 route de Fontenais, 2900 PORRENTRUY, Switzerland, and, if due notice is given, the Director himself is only too delighted to show the visitor round.

A small garden which is well worth a visit lies off the main road at the village of **St. Triphon** in the Valais between Aigle and Bex. Prepared with loving care by a gardener employed by the Parks and Gardens Department of Lausanne for whom he works part-time, it is set in delightful surroundings and the plants are well-arranged and labelled. This garden is not listed in any guide book, but visitors can come and go as they please and may, indeed, have the good fortune to meet its creator working with his plants.

Students cannot do better than visit the Botanical Garden attached to the University of **Fribourg.** Here the natural order beds include almost every plant in Europe, and some from elsewhere, set out in classification order. The garden also specialises in the provision of seed from the plants growing there and some emphasis is put upon medicinal plants for the students of pharmacy and medicine. When passing through **Zurich,** the University Botanic Garden, recently re-sited close to the lake near Bellevue, is worth visiting if only for the novel designs of the plant houses.

It is, of course, unnecessary to mention the almost too well-known **Schynige Platte** near Interlaken.

For lovers of plants in a more formal setting, there is the delightful sub-tropical Island of **Mainau** on Lake Constance. Here a Botanical Garden and Park has been created which is unrivalled in Europe. There are magnificent trees and an outstanding orchid house, and in summer the garden is well worth a visit for the display of *Datura suaveolens,* also a Mediterranean terrace and formal garden. However at any time of the year, it is a 'must' for visitors to that region.

Finally, of course, Switzerland abounds with Alpine Gardens, many framed by the magnificent scenery of the Alps. The writer will be delighted to advise any members on the gardens to see in any area they may be visiting in a country which could be regarded as one vast garden, and a feast for any botanist.

C.B. HOLLIDAY, FPS, FLS, 1 Chemin de Lucinge, 1006 LAUSANNE, Switzerland.

EUROPEAN WILD FLOWER PHOTOGRAPHS

Those members who have seen the exhibition of wild flower pictures mounted by Desmond and Marjorie Parish, or attended their lectures given in many provincial centres will be interested to know that 95 of these pictures have been collected into a book published by Blandford Press at £4.95.

Arranged according to habitat, the plants illustrated come from all parts of Europe from the Arctic Circle to the Mediterranean, and from the Atlantic to Aegean. Each has a whole page, with notes on habitat, distribution and points of interest facing it.

Entitled *"Wild Flowers, a photographic guide"* one could have expected some hints from Desmond Parish on how he achieves his excellent results, we looked in vain for any guidance which might assist less skilled photographers to emulate Desmond Parish's undoubted excellence in this field. The colour printing has faithfully reproduced the Kodachrome originals and its compact size 8" x 6" make it an ideal small coffee table book.

BSBI NEWS 24
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REQUESTS

SAXIFRAGA ROSACEA AND *S. HYPNOIDES* IN THE BRITISH ISLES – corrigendum.

It was not the intention of the author to ask for botanists to collect *S. rosacea* in the British Isles. The species, especially if it is to be found in England, Wales or Scotland, may be present in very small and vulnerable populations. The request for material in the article referred only to *S. hypnoides* and collectors of this species should be careful not to seriously deplete small populations (in which *S.hypnoides* is often found).

D.M. PARKER.
University of Liverpool Botanic Gardens, Ness, Neston, WIRRAL, Cheshire, L64 4AY

SEED REQUEST

Dr. Peter Reynolds of the Butser Ancient Farm Project tells us that he has the opportunity to extend the range of cornfield weeds that he is cultivating through an offer of some land nearby which is off the chalk. He would particularly like to obtain seed of *Filago gallica* and *Arnoseris minima.* If any member has these plants **GROWING IN THEIR GARDEN**, or knows of **A GARDEN SOURCE,** Dr. Reynolds would be very pleased to receive seed.

As both species are now very rare and threatened in the wild **NO SEED SHOULD BE COLLECTED FROM ANY WILD PLANTS** of these spp. in Britain.

Recorders attending the Conference at Rogate in October 1979 spent an interesting day at the Ancient Farm site at Butser Hill, and it is hoped to arrange a field meeting in July 1980 for members to see the cornfields. Dr. Reynolds told us that the old strains of wheat grow to 6'6" (in which botanists are said to have been lost for several days!)

DR. P.J. REYNOLDS, Rookham Lodge, East Meon, PETERSFIELD, Hants.

LETTERS

LATHRAEA SQUAMARIA, a Troglodyte

Whilst on holiday in Yorkshire I went into Goyden Pot, one of the sink holes of the River Nidd located high up in the Nidd Valley above Lofthouse (Mid-W. Yorks v.c. 65). About 15-20 ft. down, just on the threshold of light, I was most surprised to find a patch of Toothwort *(Lathraea squamaria)* apparently growing on the roots of an Alder *(Alnus glutinosa).* They were all very robust plants standing 6-8" tall. Their colour of pure white stood out making them like candles in the dimly-lit pot-hole. None of the plants possessed the usual pale pink found in the toothworts I know from the E. & W. Sussex woods. This is the first time I have found any flowering plants in a cave although on occasions I have seen fungi or ferns quite near the surface or near lights in 'show' caves.

Anyone wishing to see this patch of toothwort should bear in mind that Goyden Pot is a pot-hole with a high grading of severity and entry should not be attempted without expert guidance and the right equipment.

A.G. HOARE, 159 St. Mary's Drive, Pound Hill, CRAWLEY, Sussex, RH10 3BG.

MALVA ALCEA L. AND *M. MOSCHATA* L. in Cambridgeshire

While perusing a gardening Encyclopaedia I was surprised to discover a fine coloured plate of a plant labelled *Malva alcea* which looked identical to *Malva moschata*, having remarkably similar features of fine-cut leaves, colour of flowers and general habit. It had not occurred to me that there was a possibility of confusion between these two species, thus I checked through my collection and later examined British plants in the Cambridge University Herbarium (**CGE**).

Plants that I had collected in a chalk pit on the Gogs (52/485538) between 1974 and 1978 were typical of *M. alcea* having broad, often egg-shaped epicalyx lobes densely covered in stellate hairs; stems and flower stalks also coated in stellate hairs and glabrous and ribbed carpels – see A. in sketch.

More surprisingly a plant in **CGE** collected at Madingley near Cambridge by J.S. Henslow on July 31st, 1828 agreed closely with *M. alcea* although the epicalyx lobes were slightly narrower – see C. in sketch. Compare these with the most contrasting form of *M. moschata* (B.), drawn from a plant collected at Gamlingay. This shows the narrow epicalyx lobes with simple hairs, covering stem and peduncle and the hairy, mainly blackish, carpels typical of *M. moschata.*

One from Holkham Meols, Norfolk, dated 1839 had stellate hairs over stems, peduncles and epicalyx as *M. alcea* but had the narrow epicalyx lobes and hairy carpels as *M. moschata*. The remainder of those examined included a high proportion which generally resembled *M. moschata* but showed some degree of stellate hair covering over calyx or epicalyx. This confusing situation is possibly the result of interbreeding by horticulturists or else the Taxonomy of British plants needs revising.

GRAHAM EASY, 11 Landbeach Road, Milton, CAMBRIDGE, CB4 4DA.

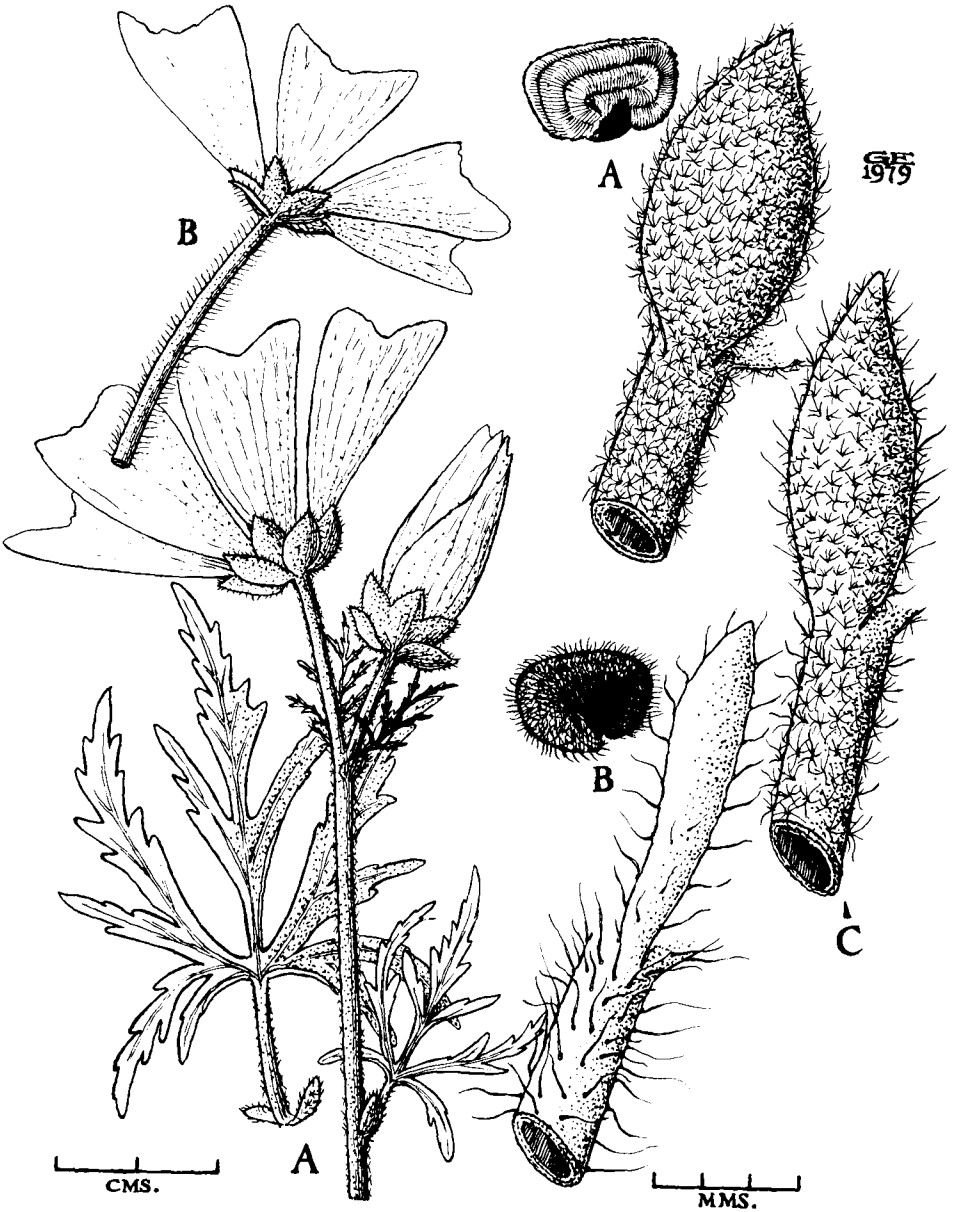
QUERCUS ILEX A MENACE IN I.O.W.

Mr. B. Shepard, Recorder for v.c. 10 (I.O.W.) draws our attention to an interesting and potentially alarming situation in the Ventnor District. The steep escarpment of St. Boniface Down above part of the town has, over the last 50 years,been colonised by *Quercus ilex* to the exclusion of all other plant and animal life thanks to its dense shade and thick carpet of fallen leaves. This, in itself presents no problem, rather the reverse for the tree roots stabilise the chalk and prevent landslips.

However the trees attract rooks and jackdaws who fill their crops with acorns then fly to surrounding downland to regurgitate and re-injest them.

If disturbed in this process they fly off leaving whole acorns on the ground, some of which germinate. As a result, large areas of downland are populated with seedlings of this tree. At present the clearance of such young plants would be a comparatively simple operation under the auspices of a Conservation Corps or the Manpower Services Commission. But should this colonisation be allowed to continue,the encroachment of this climax vegetation would materially alter local ecology to the detriment of other species.

Mr. Shepard invites members who are interested in this problem or may know of similar phenomena involving this or other species to contact him. He would be willing to show the site to any member visiting the island. He can be contacted at 87 Elm Grove, NEWPORT, I.O.W. PO30 1RN. Tel : (0983) 526059.



Malva alcea and *M. moschata* del. G.M. Easy 1979 ©

MARSH ORCHIDS ON AN UNUSUAL SITE IN W. LANCS

This June I visited an unusual botanical site in the centre of a large industrial complex, British Nuclear Fuels Ltd., plant at Springfields near Kirkham, Lancs. The 200 or so vigorous, densely-flowered spikes of Marsh Orchids, averaging 20 inches in height, showed the typical characteristics of *Dactylorhiza praetermissa* with vivid magenta predominating; an impressive sight in the vice-county which marks the NW limit of this species according to the *Atlas.*

Several plants were abnormal, some showing the heavy hollow-ring leaf spots typical of *F. pardalina,* others bearing the continuous line and loop markings on the lip with an emphasized central lobe suggesting a possible former presence of *D. fuchsii* (Druce) Soó. subsp. *fuchsii.* As I know of no colony of the latter in the vicinity the controversial taxon *F. pardalina* would seem more likely than the hybrid, *D.* x *grandis* (Druce) P.F. Hunt. V.S. Summerhayes (*Wild Orchids of Britain* 1951, 1968) discussing the 'Leopard Marsh Orchid' (pp. 288-9) states: "It may be that we are here witnessing the early stages in the production of yet another marsh orchid by much the same means as it is suggested *O. praetermissa* itself may have originated". D.M. Turner Ettlinger (*British & Irish Orchids: A Field Guide,* 1976) seems to limit it to a form occurring in any large population of *D. praetermissa.* The sizeable colony at Springfields would be an excellent one to study the problem, since it is at the limit of the species' range.

The habitat is a piece of sunken marshy ground roughly 100 ft. x 100 ft. some 18 ins. below the surrounding land. At some stage in the last thirty years a considerable calcareous deposit has accumulated and though permanently marshy, much surface lime is still visible. Similar limey spots in the vicinity have been colonized by other calcioles such as *Primula veris.* These soil conditions, so untypical of the Fylde as a whole, have been created accidentally by industrial activity.

Soils in this part of v.c.60 do not favour orchid colonization, Marsh Orchids being uncommon, (except for *D. incarnata* subsp. *coccinea* at Starr Hills, St. Anne's and *D. purpurella* at Freckleton, both coastal sites). Springfields is unique and of special value despite its being an 'artificial' environment. Incidentally it is not recorded in the *Atlas.*

Acknowledgements are due to BNF Ltd., for permission to view the site and submit this report.

N.P. WEBB, 78 Dowbridge, Kirkham, PRESTON, Lancs PR4 2YL.

Since the above was submitted, the writer has been in touch with the v.c. Recorder and other botanists working on Marsh Orchids in the area, and we shall no doubt be hearing more on this fascinating genus. In the meantime our contributor – now at Lancaster University – says his main purpose was to draw attention to the flora of "industrial areas". Have we here a fresh field of interest, "Industrial Botany ?" (Ed.)

EUPHORBIA OBLONGATA

I can add a little to my friend Eric Clement's note on *Euphorbia oblongata* from my Norfolk garden (*BSBI News 22* p.16). It is now clear that the plant was introduced deliberately from the garden of a farmer in a nearby village. He has a number of examples of this species, and tells me that he bought them years ago from a nurseryman under the name of *E. dulcis.* From what Eric says, the confusion is pardonable.

Dr. C.P. PETCH, MD, FRCP, The Manor House, Wolferton, KING'S LYNN. Norfolk. PE31 6HA.

SAXIFRAGA CERNUA. L. A Report on Seed formation.

All the floras that I have consulted, including *Flora Europaea*, state that reproduction in *Saxifraga cernua* is by bulbils only and that seed formation is unknown. Recently seed production by this species has been recorded from three different sources.

In his paper "Germination of seed collected in Spitzbergen" (Svalbard) 1972, Eurola records germination of seed of *Saxifraga cernua* collected on a field trip to Svalbard. As far as I know this is the only authentic record of seed observed in a wild population of this saxifrage. Dr. H.J.B. Birks of Cambridge University Botany School has drawn my attention to a recent paper (1977) by Wehrmeister and Bonde in *Arctic and Alpine Research* **9** (4). These workers record seed formation in *S. cernua* growing in cultivation. Their plants originated from an Arctic (Alaskan) population. Attempts to set seed in an alpine population (Colorado) despite hand pollination, did not succeed. Chromosome numbers given are : *Saxifraga cernua* from Point Barrow, Alaska 2n= c68. *S. Cernua* from near Summit Lake, Colorado. 2n=60.

During my work on *S. cernua* in the preparation of an account for the Biological Flora I have observed that at both its Ben Lawers and Glencoe localities it forms flowers that do not develop ripe androecia or viable pollen*. I have no data for the Nevis sites. However I managed to produce seed during 1974 by hand pollinating plants originating from Ben Lawers with pollen collected from a population growing in northern Norway. Of 25 ripe capsules formed a total of 406 seed were harvested. The number of seed produced by these capsules may seem surprisingly small, bearing in mind what large numbers of viable seed can be formed in such species as *Saxifraga rivularis* and *S. cespitosa*. In each capsule I counted a number of what appeared to be unfertilised ovules or perhaps abortive seeds. The actual seed potential per capsule exceeded 200.

My investigations with the Ben Lawers plants in cultivation lead me to conclude that anthers do not complete their maturation and viable pollen is not formed. Thus pollination is not possible and seed cannot be set. Although this seems a reasonable explanation for failure of seed setting amongst British *S. cernua* it does not explain the lack of ripe capsules and seed in more northerly populations where apparently pollen *is* produced. If each population is derived from a single clone then perhaps there is a high degree of self-incompatibility. Certainly there is a need for further investigation.

I have now, in cultivation, a number of plants of the new genotype. They grow very vigorously, often exceeding 20 cm in height, with large bulbil production and consistent flowering under a minimum photoperiod of 15 hrs. The androecia produce viable pollen but over three years of observations no seed has yet been set. The investigation continues.

* Pollen viability was tested using the nitro blue tetrazolium method, and germination of pollen tubes on a sucrose/agar gel.

J.S. GODFREE, Biology Department, Hadham Hall School, Little Hadham, WARE, Herts, SG11 2EB.

MISS D. de VESIAN

I see in the BSBI News of Oct; '79 No. 22 the mention of Miss D. de Vesian of Cheltenham. She has a double insurance to keep her young, as she was on the staff of Cheltenham Laides College in my day, and it seems that if the staff survived us as pupils, they will be able to live for ever.

MISS M. HATCH-BARNWELL, "The New House" The Parks, MINEHEAD, Somerset, TA24 8BT.

POLLINATION AND SEED DISPERSAL BY INVERTEBRATES

BSBI News 20:15 featured an illustration by Dorothy Lousley of *Asarum canadense* which was pollinated by slugs. Ceres Esplan who grows *Asarum* sp. in her garden has observed pollination by wood lice and ants also. She sends too an extract from *A Chalk Garden* by F.C.Stern (1960) in which *Leucojum nicaeënse* and *L. vernum* are described as having on the seed an appendage or caruncle – "a sugary protuberance extending across the outside of the seed, which can be plainly seen when it is fresh . . . Rolfe Nordhagen, Bergens Museum Arbole 1932. Naturvid Rekke No. 5, suggested that this sugary caruncle is attractive to ants, who take it to their nests, the seed being thus distributed. He carried out experiments to confirm this theory. All the species of Snowdrops have seed with caruncles, all no doubt also distributed by ants." F.C. Stern wrote also of *Leucojum aestivum* seed, which is "fairly large, and has at each end air pockets, which enables it to float and so be distributed." This would no doubt account for the good colonies established on the islands in the River Thames which were seen and admired on the BSBI River Excursion in May 1978.

M. Briggs

ODDITIES IN A DORSET GARDEN

Since the occasion at my boyhood home in Surrey when a plant of *Hyoscyamus niger* appeared, out of the blue, on our compost heap, I have always been intrigued by chance arrivals. Our present mid-Dorset garden provides several problems. We are on a N-facing slope over chalk, and in the old pasture and old hedges we have the expected local natives, including *Daphne laureola, Iris foetidissima, O phioglossum vulgatum* and 4 species of orchids. These take no explaining, but 2 species we took over with the garden are curious. On a W-facing hedge bank was a strong colony of *Allium carinatum,* which over 16 years has thriven but only shown a minor degree of spread along the bank. How in the world did this originate, unless by deliberate introduction ? Not in the same category of oddness, perhaps, is one of our common garden weeds, *Papaver dubium.* One must assume this to be a relict cornfield weed, although it is not a particularly common Dorset plant and I know of no other neighbouring colonies.

Of the plants that have arrived since we have been here the two most puzzling have been *Phyteuma spicatum* and *Euphorbia dulcis.* The *Phyteuma* appeared as a single plant in the mint bed about 12 years ago. The single plant has grown into a clump, but there have been no seedlings. The story of the *Euphorbia* is that for a couple of years I had noticed in a dry E-facing bed seedlings of what I hoped were *E. epithymoides* under the supposed parent plant, long established and of horticultural origin. The seedlings flowered in 1977, and Kew has confirmed my tentative diagnosis of *E. dulcis.* Although we do not use birdseed ourselves and the Euphorbia is a quarter mile from the nearest house, I suppose this must be the most likely source for both species.

DR. T. NORMAN, The Old Rectory, Winterbourne Houghton, BLANDFORD, Dorset, DT11 0PD.

OENANTHE CROCATA, POISONING IN THE ISLE OF MAN.

Extract from diary of P.G. Ralfe:*

April, 1899

'On Saturday last two little boys were poisoned (one of whom died) by eating near Kewaigue, the roots of a plant described as hemlock but which seems to have been *Oenanthe crocata'.*

A second, similar, incident took place at Arbory, in the south of the Island, within living memory. On the latter occasion the roots had been exposed by storm water and had been taken for carrots. The surviving child had had milk to drink shortly before eating the roots and this was taken to have slowed the action of the poison.

These are almost the only examples of children being fatally poisoned by plants in the Isle of Man of which I have had any report.

DR. L.S. GARRAD, Assistant Keeper,
The Manx Museum, DOUGLAS, Isle of Man.

* A Manx naturalist and author of the *Birds of the I.O.M.*

PROBLEMS FOR RECORDERS

To record, or not record; that is a question not always easy to decide. One seeks a satisfactory balance between, on the one hand, what might be expected to occur, and, on the other, what happens to turn up, no matter how unlikely to survive. Garden bird-tables are now a constant source of 'once only' plant arrivals, and "shoddy" used as manure even more so. Railway ballast, far from the coast, often produces shocks in the way of normally maritime spp. An end may be put to these by the occasional exceptionally severe winter. The surprising appearance of *Asplenium marinum* in a wall in the N. Midlands seems to be in the same category as the *Osmunda regalis* which erupts from the brickwork of one's coal-shed or *Pteris cretica* down a street coal-shute, i.e. from a garden or greenhouse source . . . . but, there they are.

One would like to ignore planted but non-self-reproducing exotic trees, though even these present difficulties (many of the native trees have been planted anyway). Most are long-lived, and some numerous enough to be part of the scene. Then there are others that produce the occasional seedling, which, if lucky, may reach maturity. Relicts from old plantings of herbaceous species, sufficiently robust to survive and thrive apparently indefinitely among the native flora, present the same difficulty. To some enthusiasts, directly a plant extends six inches beyond its garden fence, it becomes 'wild'. But, at this stage, these last can, and should be, forgotten.

The answer seems to be 'when in doubt, do,' remembering to include with the record the conjectured reason for its appearance. Caution, however, must be used over some records – especially of "tricky" species – unsupported by satisfactory evidence. It is seldom convenient, and sometimes impossible, to dash off post haste to inspect some distant site. Such information can only be retained pending later confirmation.

KATHLEEN HOLLICK, The Old House, ASHBOURNE, Derbys. DE6 1AJ.

BOTANICAL DRAWING

So many complimentary remarks reach us concerning the excellence of the drawings reproduced in these pages that, to encourage others to venture into this field, our artists have been invited to describe their technique.

*Mrs. Richards who as Lysbeth Kemp has provided some of the most admired illustrations (**BSBI News** 18:cover; 20:11; 22: 20 21) starts this series.*

ESSENTIALS of DRAWING for REPRODUCTION

Having had no Art-school training, and with but one "reproduced" drawing to my name, I feel too incompetent to attempt anything more under this heading than an outline of the way in which I set about drawing a plant for BSBI News. I think there are really three stages :

Firstly, (as for any plant drawing), I enjoy myself investigating the plant, using both x 10 lens and binocular microscope, and making preliminary sketches and some detailed drawings. This helps in a) giving me the "feel" of the plant before attempting the main drawing, and b) suggesting which parts might need enlarging beside the general drawing in order to show clearly all the diagnostic features of the plant. It also has the practical advantage that important details are recorded before the plant starts to wilt, shed petals and anthers, and generally lose its "joie de vivre."

Were I drawing for myself, I would then proceed freehand with pen and nib to produce (eventually) a drawing, probably somewhat botanically inaccurate, but recognisable and generally pleasing. However, for the BSBI I must raise my botanical standards while maintaining my artistic ones. A certain amount of donkey work is necessary: proceeding lightly with 2H pencil and soft rubber, I hold the plant at the angle which seems likely to give a drawing of maximum clarity, and think of growth patterns as I draw; I find it helps to look at the space between parts to obtain the correct orientation; I do not usually measure plant parts but endeavour to obtain the correct proportions by mentally measuring one against another, later measuring drawing and plant to give an idea of scale. There is a great temptation to move bits of the plant about into positions from which they are more easily drawn, but this is best resisted; not only does it distort the general appearance, but it is generally quite straightforward to draw the awkward parts *in situ* if you only believe your eyes. A certain amount of artistic licence is, I think (hope!) permissible – the living plant is not normally subject to the rigorous attentions of the G.P.O. This painstaking pencil stage tends to be frustrating and one rarely feels satisfied – largely because by now the plant is known to the artist so well that nothing short of perfection on paper will seem an adequate representation. Here, then, is a suitable opportunity to recuperate with a mug of coffee.

Thirdly, I use a 0.2 mm rapidograph (for clarity and precision) not so much to "ink over" the pencil drawing, but to form a second drawing from the first together with the plant, adding, altering, deleting as necessary, and shading if required. While I tend to be in a state of terror of error, due to the indelibility of the ink, this stage is generally more rewarding, as the drawing begins to look more professional; but even when the vast trace of pencil has been erased the shortcomings of the ink drawing still seem glaringly apparent. Friends and relatives (kind ones) are useful here, to boost flagging morale before the hopeful masterpiece is dispatched.

There is, of course, a (potential) fourth stage. The joy of seeing the printed drawing, reduced (although only the faults seem much diminished). Did I do that ?

LYSBETH RICHARDS, Upper Chalford Cott., Chalford, CHINNOR, Oxon, OX9 4NH.

She : What a delightful view !
He : Make the most of it. This is where the new plastics factory will be next year.

Stop Press

ROSA SPECIALIST (see p. 4)

Rev. G.G. Graham is particularly interested in mapping roses by tetrads since similar schemes in Leicestershire and Durham have proved so successful. Some degree of rationalisation is essential. In BSBI News 24 a further note on his suggestions will appear.

SUFFOLK NATURE RESERVES – OPEN DAYS 1980

Framsden Fritillary meadow – 3 & 4 May
Groton Wood, near Hadleigh – 18 May
(ancient woodland)
Rex Graham Reserve – Military Orchid – 8 June
Further details from Suffolk N.C. Trust, St. Peter's House, Cutler St., IPSWICH.

BSBI NEWS 24
Contributions intended for publication in this issue must reach the Editor BEFORE 17th FEBRUARY 1980

CONTENTS LIST

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