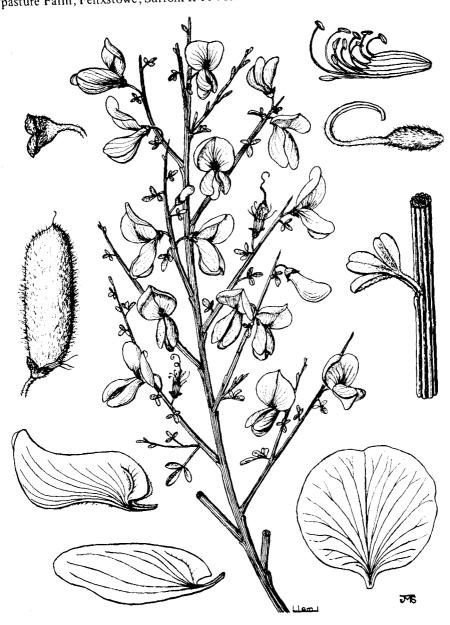
B.S.B.I. NEWS

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



Cytisus striatus see pages 7 and 12.

ADMINISTRATION

General Enquiries from members should be addressed to:

HON.GEN.SEC. Mrs. M. Briggs, White Cottage,

Slinfold, HORSHAM, West Sussex,

RH13 7RG.

Changes of address and subscriptions should be sent to:

BSBI, Harvest House, 62 London Road,

READING, Berks. RG1 5AS.

Matters concerning field meetings, should go to:

HON. FIELD SEC. Miss L. Farrell

Nature Conservancy Council Godwin House, George Street,

HUNTINGDON, Cambs. PE18 6BU.

RECEIVING EDITOR

Dr. C.A. Stace.

Watsonia

Adrian Building, University Road,

LEICESTER LE1 7RH.

ANNOUNCEMENTS

Nominations to Council

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 RH13 7RG, to arrive BEFORE FEBRUARY 1st 1979.

Mary Briggs. Hon. Gen. Sec.

Rules of the Society - important reminder

At the 1978 Annual General Meeting an alteration to Rule 28 concerning payment of Annual Subscriptions was approved. This Rule is now "Any member whose subscription shall be in arrears for five months on the first day of June in any year shall cease to be a member". This means that any member whose subscription is unpaid on JUNE 1st 1979 will NOT receive Watsonia 12 (4), BSBI Abstracts 9 or BSBI News 22. Subscription renewal forms are sent with this mailing, and members who do not pay by Bankers Order are asked to renew promptly.

BSBI News — back numbers

BSBI News No. 2, would be gratefully accepted by the Hon. Gen. Sec. if any members no longer require their copies. Also any spare copies of Nos. 11 and 17. BSBI News is distributed only to members, is not on sale, and Back Numbers are not held as stock items.

Watsonia, Proceedings, BSBI Abstracts, back issues see under PUBLICATIONS p.18.

Index to Watsonia Volume 11

This is now being compiled, will be published in 1979 and mailed to members with Watsonia 12 (4). This is planned for July or August 1979.

Mary Briggs.

EDITORIAL

SHE'S A JOLLY GOOD FELLOW – an Honour for our Secretary

The Byelaws of the Pharmaceutical Society of Great Britain provide for the occasional designation of Fellows of the Society and I am sure members will be delighted to know that our Honorary General Secretary Mrs. Mary Briggs was recently honoured in being designated as a Fellow. This award is made to Members who have attained special distinction in Pharmacy and in the last 12 years only 21 women have been rewarded in this way. In the case of Mrs. Briggs, her work for the profession of pharmacy linked with services to botany has been recognised, so continuing the historical connections between the two disciplines. She has been part-time Pharmacist at Horsham Hospital for 16 years and in addition to honorary work as general secretary of the B.S.B.I., during the summer months leads botanical parties for mountain flowers in Europe. In 1978 she led tours to Crete and to Norway as well as to the Pyrenees, the Alps and the Dolomites.

HON. GEN. SECRETARY'S NOTES

We apologise for the late despatch last year of Watsonia 12 (2) and BSBI Abstracts 8. This was due to two months delay at the printers, and mainly through the breakdown of their binding machine. In particular the special offers for Reprints of Local Floras (sent with the Journals) which closed on October 1st 1978, did not reach members until October 2nd at the earliest. Our Agents at Oundle Lodge however were aware of this situation and orders sent to them on receipt of the mailing were honoured at the offer price.

Fortunately the late arrival of the Black Nightshade Network Research Survey card and instructions was offset in most areas of the British Isles by good growing weather in October. The flowering of *Solanum nigrum* was extended into this late season enabling many members to take part in the recording. The Survey will be carried on until the end of 1979. We would like to compliment Dr. Jennifer Edmonds on the clarity and format of the survey card which she herself designed and drew.

NO VISITORS PLEASE

Gagea bohemica (Zauschn,) J.A. & J.H. Schultes, has been recorded in Wales and it is hoped that the site is to be declared a National Nature Reserve, when access will be by permit. For the time being however members are particularly requested NOT to visit the site while this is under negotiation. The main reason for this is that it is a very sensitive habitat, and other rare plants mainly bryophytes and lichens are threatened and could very easily be damaged unwittingly by visitors not knowing exactly where their feet can safely tread.

This *Gagea* flowers very early in the year; in Britain, from January to March when the rocks may often be dangerously surfaced with ice. Very few of the plants flower and in some years none at all. Without local guidance a visit to the site could well be both unprofitable to the visitor and very damaging to the habitat, so please do not attempt to visit before the permit arrangements have been announced.

A full report of the discovery in Britain, and the European distribution of *Gagea bohemica* will be published in *Watsonia*.

ELODEAS ELUCIDATED EVENTUALLY?

At the very enjoyable and successful Aquatic and Marsh Plant Symposium held at Brathay Field Centre, we were pleased to hear from Professor C.D.K. Cook that he has recently been awarded a Research Grant to work on Hydrocharitaceae and that he will, during the next two years, be making a special study of the very puzzling Elodea spp. on a world wide basis. Prof. Cook tells us that the taxonomy of Elodea spp. and Hydrilla spp. cannot be determined on female flowers alone (the branching of the stigmas is not a constant character). As, so far in Britain, only female flowers have been recorded from the recently reported 'invading' Elodea spp., Prof. Cook asks that members should NOT send him specimens of Elodeas from Britain which are not flowering, or have only female flowers. BUT if anyone can find a male flower (these become detached and float on the surface of the water) he would welcome and repay costs of an immediate telegram or telex message; if, moreover, any member could find SEED on an Elodea plant in Britain, a worthwhile reward is offered.

Communications should be addressed:

Prof. Dr. C.D.K. Cook, Botanischer Garten der Universitat, Zollikerstrasse 107, 8008 ZURICH, Switzerland. Telephone (010 41.1) 32 36 70 No Telex.

On excursions at the recent Symposium, with the aid of divers, specimens of *Elodea* from several Cumbrian Lakes were examined and provisionally described as two species, one "text book *E. canadensis*" and the other as "not *E. canadensis* and not *E. nuttallit*". It is *possible* that we may now have two relatively recently recorded species of *Elodea* in Britain, but we can both look forward to a definitive report by Prof. Cook in 1980 on the status and identity of these problem plants. 70 members attended the Symposium; abstracts of the papers and a report of the meeting will be published in *Watsonia*.

FLOWER STAMPS from the Post Office

On March 21st 1979 Spring will be heralded by a stamp issue featuring wild flowers. The four stamps will show Primroses, Bluebells, Snowdrops and Wild Daffodils in paintings of a countryside scene. A special First Day Cover will be sent to members who send £1.00 with their name and address marked 1st Day Cover to F. & M. Perring, Oundle Lodge, Oundle, Peterborough PE8 5TN before March 1st.

It is hoped also to arrange that the post cancellation slogan used by some sorting offices at the time of the stamp issue will carry a conservation message such as "Please leave wild flowers for others to enjoy".

and talking of stamps

A reminder please to send s.a.e. with enquiries to members at a private address, and to non-members as for example Mr. L.P. Burgess who offered pollination records (BSBI News 19 p.20). Mr Burgess tells me that only 50% of his BSBI correspondents have to date enclosed s.a.e. with their enquiries.

MARY BRIGGS

BSBI NEWS 21 Contributions for this issue must reach the Editor BEFORE 17th FEBRUARY 1979

EASTERN ENGLAND RARE PLANT SURVEY

It was the turn of Hertfordshire to be surveyed this year, and, though poor in nationally rare plants, the County proved to be rich in documentary material. Much of the winter was spent in reading J.E. Little's 12-volume Diary, and looking through other material now at the Hitchin Museum. About 35 of the species listed in the Red Data Book used to occur in the county; 12 became extinct during the 19th century, a further 15 were lost between 1900 and 1945. Since the war only 3 species have vanished, (all cornfield weeds) and the last plant of Seseli libanotis was seen in 1974. Out of the 35 nationally rare species only Bunium bulbocastanum, Hypochoeris maculata and Phleum phleoides still occur, so 6 locally rare species were added to the survey, (of which only 3 were found to be still extant). Despite the lack of success, it was a pleasure to work in Hertfordshire and receive such friendly and invaluable help from local botanists, and in particular from John and Chris Dony, Brian Sawford, Trevor James, the Darlings and Mr. A.W. Graveson.

Since the survey of a County is limited to one year, it can never be complete. Plants have their good and bad years and this has perhaps not been appreciated enough in the past. I was lucky to be able to work in Norfolk in 1977, when conditions for plants such as *Liparis* (and the surveyor) were very good! This year only a few plants of *Liparis* were seen and it would have been very difficult to spot these little plants in new sites under the sodden vegetation. Fortunately, through lack of time, a systematic search for *Orobanche purpurea* had to be postponed to this year; this resulted in the survey being carried out in a very good year for this plant. Whereas over the past 3 years not more than 20 plants were seen in 3 sites, this year 221 flowering spikes were found in 8 sites. Another welcome addition to the 1977 Schedule of Rare Plants in Norfolk was the re-appearance of *Gnaphalium luteoalbum* after an absence of 5 years in its classic locality on the Norfolk coast.

Obviously the very fact that a survey of rare plants is, or has been carried out in a county, acts as a stimulus to local botanists to find new sites, or to visit again old localities. A striking example is Alan Leslie's two-day perambulation which has resulted in the addition to the 1976 Cambridgeshire Schedule, of 4 new sites for *Lythrum hyssopifolia*.

Since the publication of the British Red Data Book on Vascular Plants (1977), it has become necessary to add 31 species to the list of Rare Species in Eastern England published in *BSBI News* 14. The amended and corrected list is printed overleaf.

I hope that members of the BSBI will continue to send me news of their new discoveries as soon as they find them, so that I can map, photograph and record them in detail immediately. Only in this way can we build on our remarkably scant knowledge of the status and behaviour of our nationally rare plants, and thereby accumulate the necessary information so vital to their conservation. This plea is directed particularly at Suffolk botanists for I shall be working in Suffolk during 1979.

G. CROMPTON (Mrs), University Botanic Garden, CAMBRIDGE CB2 1JF

NATIONALLY RARE SPECIES IN EASTERN ENGLAND

(with date of last record).

† Agrostemma githago Alisma gramineum - 1975 Alopecurus bulbosus - 1978 Alyssum alyssoides - 1978 † Anthoxanthum puelii - 1972 Armeria maritima subsp. elongata - 1974 † Arnoseris minima - 1960 Artemisia campestris - 1978 Atriplex longipes - 1976 † Bromus interruptus - 1972 B. tectorum - 1978 Bunium bulbo castanum - 1978 † Bupleurum falcatum - 1962 † B. rotundifolium - 1961 † Campanula patula C. rapunculus † Carex filiformis † Caucalis platycarpos † Centaurea calcitrapa Cerastium brachypetalum - 1973 † Chenopodium vulvaria † Cirsium tuberosum - 1971 † Crepis foetida Crocus purpureus - 1977 Cynodon dactylon - 1977 † Cynoglossum germanicum - 1950 Cyperus fuscus † Damasonium alisma - 1958 Dryopteris cristata - 1978 Equisetum ramosissimum - 1975 † Eriophorum gracile - 1959 † Eryngium campestre Festuca caesia - 1978 Filago gallica - 1977 F. lutescens (F. apiculata) F. pyramidata (F. spathulata) - 1978 Fritillaria meleagris - 1978 † Galeopsis segetum Galium spurium - 1976 † G. tricornutum † Genista pilosa - 1840 Gnaphalium luteoalbum - 1978 † Halimione pedunculata * Hammarbya paludosa - 1977 Herniaria glabra - 1978 Himantoglossum hircinum - 1978 † Holosteum umbellatum Hypochoeris maculata - 1978 Iris spuria - 1975 I. versicolor - 1954

Juncus filiformis - 1970 Lactuca saligna - 1978 † Leucojum aestivum Limonium bellidifolium - 1978 Liparis loeselii - 1978 Ludwigia palustris Luzula pallescens - 1976 Lythrum hyssopifolia - 1978 Maianthemum bifolium - 1976 Melampyrum arvense - 1978 Mentha pulegium Mibora minima Muscari atlanticum - 1978 Naias marina - 1977 † Ophrys sphegodes Orchis militaris - 1978 † Orobanche loricata (O. picridis) † O. maritima O. purpurea - 1978 † Otanthus maritimus * Petroselinum segetum Peucedanum officinale - 1971 Phleum phleoides - 1978 * Pilularia globulifera † Pulicaria vulgaris - 1963 Rhinanthus serotinus - 1970 † Rorippa austriaca - 1958 † Salvia pratensis † Scirpus triquetrus Scleranthus perennia subsp. prostratus - 1978 Selinum carvifolia - 1978 Senecio congestus (S. palustris) S. paludosus - 1978 Seseli libanotis - 1978 Silene otites - 1978 Sisymbrium irio † Stachys germanica Taraxacum acutum T. austrinum Tetragonolobus maritimus - 1971 Teucrium scordium - 1976 Thymus serpyllum - 1978 † Valerianella eriocarpa - 1964 V. rimrosa Veronica praecox - 1978 V, spicata subsp. spicata - 1978 V. triphyllos - 1978 V. verna - 1978 Viola persicifolia - 1976

 \dagger = Extinct in Eastern England

Eastern England = Vice Counties 18, 19, 20, 25, 26, 27, 28, 29, 30, 31, 32, 53, 54, 55, 56.

G. Crompton 22nd October 1978

^{* =} Though not rare in Britain, they are included in the European Red Data Book.

POLLINATION

THE GORSES AND BROOMS POLLINATOR SURVEY

This survey forms part of a wider survey of pollination mechanisms in the legume tribe Genisteae (Gorses, Brooms and Laburnums). There are 195 species distributed over the whole of Europe where their yellow 'pea' flowers are a common feature of scrub and wood margins. In this survey I hope to obtain detailed information about the pollination of the British members:

Cytisus scoparius L. Broom. (Sarothamnus scoparius (L.) Wimm. ex Koch.) Heaths,

waste ground and woods.

Genista anglica L. 'Needle Furze', Petty Whin'. Dry heaths and moors.

Genista pilosa L. 'Hairy Greenweed'. Cliffs and dry, sandy and gravelly heaths

on poor soils.

Genista tinctoria L. 'Dyers Greenweed'. Rough Pastures

Ulex gallii Planch. 'Western Gorse'. Heaths and siliceous hill grasslands.

Ulex minor Roth. 'Dwarf Gorse', Heaths, U. minor is found east of a line which stretches roughly from Weymouth to Salisbury, Marlborough,

stretches roughly from Weymouth to Salisbury, Marlborough, Oxford and Sheffield and *Ulex gallii* is found west of it

(Proctor, 1965).

Ulex europaeus L. 'Gorse'. Rough grassy places and edges of heaths.

Introduced species include Laburnum spp. 'Suburban Laburnum', Genista hispanica L. and Cytisus (Sarothamnus) striatus (Hill) Roth. found in parks and gardens, and Spartium junceum 'Spanish Broom' on roadsides and railway embankments and Cytisus multiflorus with white flowers.

Although it is always assumed that these species are pollinated by the larger bees: Bombus sps. (bumblebees) and Apis mellifera (hive bees) there has been very little actual documentation of this, indeed work I have done recently in Norfolk on Cytisus scoparius and in Europe on other members of the Genisteae indicates that much smaller bees are able to trigger the leguminous pollination mechanisms by pure persistence, forcing apart the keel petals with their head, mouthparts and front legs.

Because of the fleeting visits of the pollinators a clear picture of their activity only builds up after repeated observations; with the help of the BSBI I hope to obtain enough records to form a statistically significant picture of the pollinators visiting each species, their numbers and the frequency of their visits, and some idea of the pollination events at the flower. As the survey will be carried out over the whole of Britain and over a period of time, I will also be able to see whether the main pollinators of each species are constant throughout Britain and over the whole flowering period (bearing in mind the geographical and temporal distribution of the plant and insect species).

To obtain all this information I am asking BSBI members interested in taking part in the survey to spend some time watching a few bushes of one of the above species of Genisteae, both endemic and introduced, to do some limited collecting of the pollinators visiting it and to fill in a questionnaire. It is impossible to identify many insects without voucher specimens; but to limit the catching, participants should only collect one of each species of pollinator. At the beginning this might seem difficult but as the observer becomes accustomed to watching the visitors and a pattern emerges, it will become easier to recognise a typical pattern which may indicate the presence of a second, previously unrecognised species. It is also proposed not to catch queens of *Bombus* spp. during the

spring (participants will be given an information sheet containing details) as a single overwintering queen gives rise to a whole colony in summer; instead outline diagrams will be provided for colouring in. The colour pattern when combined with the well-known distribution of *Bombus* in Britain will enable a partial identification.

Books which would be interesting to participants in this survey are :-

'Floral Biology', Mary Percival (1969), Pergamon Press Ltd.,

'Pollination of Flowers', Proctor and Yeo (1973), New Naturalist Series.

'A Field Guide to the Insects of Britain and Northern Europe', Michael Chinnery (1973), Collins — this is an excellent guide to the different insect types which assumes no previous knowledge.

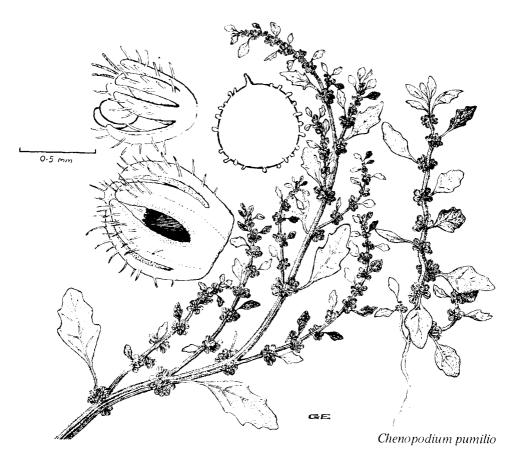
'Bees, Wasps and allied insects of the British Isles', Edward Step (1932), Wayside and Woodland Series.

A reference to help distinguish between *Ulex gallii* and *U. minor:* Identification of *Ulex gallii* and *Ulex minor,* Proctor, M.C.F. (1965), *Watsonia* 6:177.

Please would all members interested in the survey write for more information to : Margaret Adey

Biology Dept., Building 44, The University, SOUTHAMPTON, SO9 5NH.

..... I look forward to hearing from you



ALIENS and ADVENTIVES

ADVENTIVE NEWS 12

Compiled by Eric J. Clement

VERONICAS AND NURSERY GARDENS

A.W. Graveson tells me that his *Veronica acinifolia* record in *BSBI News* 19 p.16 has a history dating back many years. A few plants arrived spontaneously in his garden at Beaminster amongst newly planted *Cupressus macrocarpa* in 1937. It increased considerably in subsequent years and is still fairly plentiful most years, just a few plants being spared from weeding operations each year. *Veronica peregrina* also arrived in the garden in 1937 and has persisted ever since. Both are recorded in Dr Good's Dorset *Flora* (p.197) as "casuals".

Ten miles from Beaminster are the largest Nursery Gardens in the area, (Scott's), at Merriott (S. Somerset). In May 1978 both these species were found to be abundant there by Capt. R.G.B. Roe, although not noticed on visits in previous years. Conf. R.J. Pankhurst. BM. The *V. acinifolia* is new to Somerset.

Veronica peregrina is well-known as a species largely confined in Britain to nurseries and gardens, and it is still spreading. Last year, for example, saw the first ever record in the LNHS London Area (20-mile radius of St. Pauls), in flower-beds at Carshalton (Surrey). The Glasgow Naturalist 19 (4): 341-342 (1976) tells of its recent abundance at the Finlaystone House Garden Centre at Langbank (Renfrew). Numerous older records are listed in Proc. BSBI 5 (4); 303-313 and Proc. BSBI 6 (3): 215-220 for the British Isles Yet it is still totally unknown, even as a casual, from Wales (comm. G. Ellis). CTW wrongly gives the flower colour as "blue": it is always white (or whitish).

Veronica triphyllos away from Breckland is nowadays known only from one isolated nursery at Byfleet (Surrey) where it still lingers on, but only a few individuals (or none!) are to be found there each year. Future spread is most unlikely.

MIXED BAG

Bromus lanceolatus Roth (B. macrostachys Desf.) var. lanuginosus (Poir.) Dinsm.: Widespread in gardens and waste places, New Town area of North Yeovil (S. Somerset), September 1977. J.G. Keylock. Conf. C.E. Hubbard. The variety differs from the type only in the hairy (not glabrous) spikelets. Possibly of wool origin here? (It is well-known from wool shoddy fields).

In plenty, on sandy beach, Felixstowe Ferry (E. Suffolk), July 1978. M.A. Hyde. Det. EJC. Growing with some *Lagurus ovatus* and *Briza maxima*; all three grasses are popular in ornamental grass-seed mixtures. This was presumably their origin here — and were they deliberately sown to beautify our countryside? The *Briza* was present there the previous year, with *Iberis umbellata* L.

Chenopodium pumilio R. Br. (C. carinatum auct., non R. Br.): Filled gravel-pit tip, Kennett (Cambs), 1969-70 & 1975. G.M.S. Easy & G. Crompton. CGE & Hb. GMSE. Wrongly recorded in Watsonia 12 (2): 170 and Nature in Cambs. 19:63 (1976). This is the only species in this group of allied Australian, annual weeds that has a tendency to persist in Br (e.g. in Kent and Surrey). Graham Easy has provided a skillful drawing of his plant showing that it lacks the prominently keeled (or winged) tepals of true C. carinatum R. Br. These two species, together with C. cristatum (F. v.Muell.) F. v.Muell., with pectinately-toothed winged tepals, occur fairly regularly in wool shoddy, and some wool specimens have been det. J.P.M. Brenan as C. x bontei Aellen (e.g. Blackmoor, N. Hants, 1969, Hb. EJC), which is C. carinatum x cristatum.

BSBI DEC 78 9

Gaudinia fragilis (L.) Beauv.: Damp, grazed meadow, near Melksham (N. Wilts), August 1978. Mrs. J. Swanborough. Det. EJC. Found scattered all over one field, and over into two other fields. It was recorded as a weed in carrots in a sandy field (allotments) at Sandridge, just 1½ miles away, May 1957, Miss M. McCallum Webster, BM, CGE, E, K, and on waste ground, Sandridge Hill, August 1951, J.D. Grose, K, but both of these records superficially appeared to be "casual".

Numerous other records exist for Great Britain, well summarised in *Watsonia* 9(2): 143-146 (1972). No records explicitly appear there for Somerset, but the June 1970 record given as vice-county "?" should be 5 (S. Somerset). J.G. Keylock tells me that since then, some 4 miles E. of Crewkerne, he has found two more localities in S. Somerset, viz. plentiful in new ley, S. of Windmill Hill (June 1972) and in very rich permanent pasture, unploughed for at least 100 years, near White Vine Farm (June 1974). In the latter spot it has apparently been increasing over the last four years.

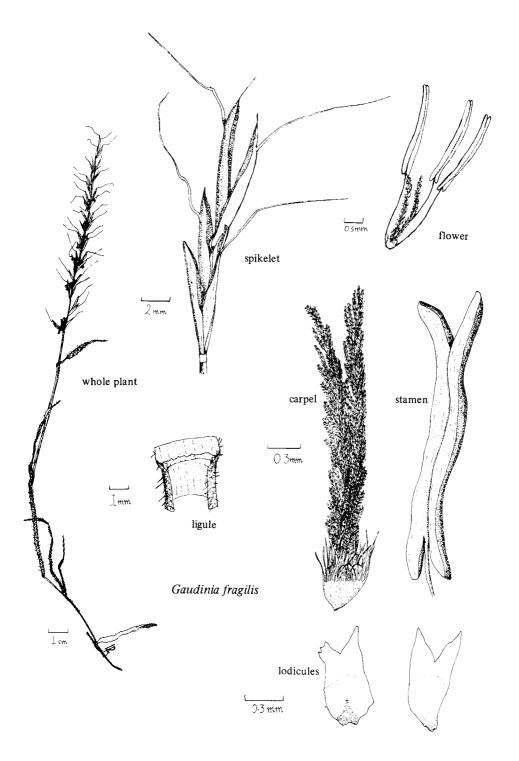
Hubbard's *Grasses* (p.247) gives only three lines of description and no drawing. Lysbeth Richards (nee Kemp) has kindly illustrated the Melksham plant for us so that members know "what to look for": many colonies must surely still await discovery. Note that it can vary much (at least in S. Europe!) in height, size of spikelets, and degree of pubescence — forms occur with near glabrous leaf-sheaths and the spikelets can be densely pubescent.

Ornithopus sativus Brot. ssp. sativus: Growing in quantity on china clay waste Carbis Moor, near St. Austell (E. Cornwall), September 1978. Mrs. B.E.M. Garratt. Det. EJC. It may have originally been sown, together with Trifolium hybridum and T. subterraneum, to help stabilize the tips, but it had spread to rough ground off the waste area. It looks very like an outsize O. perpusillus, with pink corolla 6-9mm long. Both pubescent—and glabrous-podded forms were present. It is grown as a fodder plant in much of Europe. British records are very few—I have only heard of it, in recent years, as a woolalien on river shingle at Galashiels (Selkirk), September 1971, Miss M. McCallum Webster, E and Hb. EJC.

Salix eleagnos Scop. ssp. angustifolia (Cariot) Reich. f.: In a dry dyke, remote from habitation, near the Gaywood River, Bawsey (W. Norfolk), 1978. E.L. Swann & R.P. Libbey. BM & Hb. EJC. Det. (on fls, to sp. only) R.C.L. Howitt. It "had pale yellowish-green bracts, glabrous ovary, short stubby nectary, silky hairy leaves and red, glabrous shining twigs". The very narrowly linear mature leaves, only 0.5 cm wide, placed it into the ssp. angustifolia, which appears to be new to Britain.

The type sub-species was by the river at Bury (W. Sussex), April 1960. Miss M. McCallum Webster. Det. R.D. Meikle (as *S. incana* Schrank, a synonym). No more recent records have reached me.

Downingia elegans (Douglas ex Lindl.) Torrey: Area newly sown with grass and white clover seed, by the newly formed Willen Lake, Newport Pagnell (Bucks), July 1978. G.E. Higgs, comm. P. Taylor. K & Hb. EJC. Det. (at Kew) P. Halliday & P. Taylor. It is new to the British list of aliens. Some 40 plants were growing in several depressions; in its native NW USA it grows, similarly, in moist meadows and borders of ponds. It is an annual species in Campanulaceae, much resembling Lobelia but with sessile flowers in the leaf axils, which appear to be long-stalked because of the elongate, narrow hypanthium. Described in RHS Dictionary of Gardening, but it is rarely grown today. A return visit in September revealed the presence of seed (very minute in size), so it may reappear.



Teline monspessulana (L.) C. Koch (Cytisus monspessulanus L.): St. Catherines (Jersey), June 1976. P. Macpherson. Det. EJC. This tall, spineless, yellow-flowered garden shrub readily seeds itself about, in and outside gardens — the beautifully detailed, drawing here by Florence Gravestock was of a plant on the old rubbish-tip at Kingsweston, Bristol, May 1977, now partly in BM. Clearly shown are the important characters of the calyx, the upper lip being deeply 2-fid and the lower with 3 distinct teeth; the standard exceeding the keel; the hairy legume, and the strophiolate seeds. Scattered Br records exist, but it is probably an overlooked species.

Cytisus striatus (Hill) Rothm.: Several plants on roadside bank of A438 Hereford-Brecon road, just inside Wales at about GR SO2346 (Brecknock), 1978. G.M. Kay. Conf. EJC. The silky fruits were spotted while passing by car: they looked like white flowers on the broom!

This species has been much planted on roadsides in Britain and is now spreading by seed. It is already recorded in Wales from Cardigan and Radnor (Nature in Wales 16(1):57 and Watsonia 12(2):191) and from Easterness in Scotland (Watsonia 12(1):49). Miss M. McCallum Webster's fine new Flora curiously back-dates this latter record to 1970 and adds another locality (Polmaily). Miss U.K. Duncan tells me Aberdeen University know of it from several places alongside the Stonehaven-Banchory road (Kincardine). Monks Wood have not been kept up-to-date!

In England Dr. C.A. Stace recently spotted it on the banks of the M1 motorway in Bedfordshire; no other English records appear to exist. Apart from the very hairy and more inflated pods, it differs from our native C. scoparius in having paler yellow flowers that appear a little later in the season (comm. Dr. J.G. Dony) JGD remarks that as the M1 was opened in 1959, the Cytisus striatus colony presumably (no records are kept by DOE) pre-dates the winter of 1962-3 which decimated all the local, native broom.

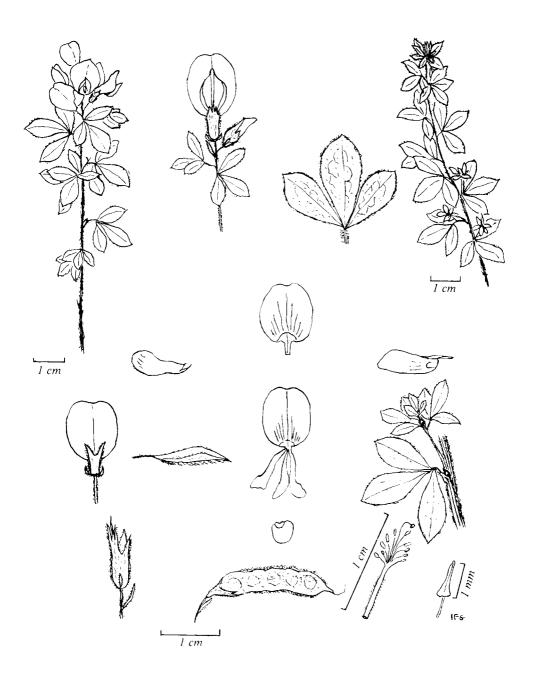
Our very professional cover drawing is the work of Jill Smythies, drawn from a native colony on crags W. of Bolonia, Spain (Cadiz): it should assist members in finding more British localities.

Campanula rhomboidalis L.: On wooded bank of River Esk, S. of Langholm (Dumfries), July 1978. R.C.L. Howitt. Hb. RCLH. Det. EJC. Some ten plants present, growing with *C. latifolia* and *C. rotundifolia*. It is locally naturalized in Belgium, Holland, etc., but is apparently unknown in Britain as an escape; native of the Jura Mountains and the Alps.

Linum tenue Desf.: Casual in garden, Dallinghoo (E. Suffolk), October 1978. Mrs H.B. Miller, comm. F.W. Simpson. Det. EJC. This yellow-flowered, annual species, apparently new to Britain, was most probably introduced with bird-seed. Native of S. Spain, Portugal and N. Africa. The leaf margins are normally minutely serrulate, not "entire" as appears in the key in Fl. Eur. 2: 206 (so it fails to key out correctly).

MANURES

Only three members have communicated their manure finds! (requested in BSBI News 18 p.11). J.R. Palmer investigated piles of agricultural manure (processed sewage) on Dartford Marshes (W. Kent) in July 1977 and recorded Cannabis sativa, Centaurea diluta, Coriandrum sativum, Guizotia abyssinica, Helianthus annuus, Lepidium sativum, Linum usitatissimum, Lolium temulentum, Panicum miliaceum and Trachyspermum ammi. It is noteworthy that all are well-known bird-seed aliens.



Teline monspessulana

- A.L. Grenfell re-explored in 1978 the market garden at Downend, Bristol (W. Glos) where chicken manure is used. *Hibiscus trionum* L. (in onion crop) and *Vicia lutea* ssp *lutea* were the only two finds of interest.
- Mrs. B. Burtt told me of her September 1976 finds in a market garden at Kenardington (E. Kent). I suspect that manure(s) were responsible for *Abutilon theophrasti* (in various crops), *Amaranthus retroflexus* (in Gladiolus), *Hibiscus trionum* (in Statice) and *Datura stramonium* (by potatoes).

Please continue to keep me well-informed so that I may well inform others. Thank you for all your contributions to date, of which, alas, only a small selection can appear here in my allocated space.

ERIC J. CLEMENT

13 Shelford, Burritt Road, Kingston, Surrey, KT1 3HR.

LATHYRUS PALUSTRIS L. var. pilosus (Cham.) Ledeb in V.C. 44

On August 6th 1977 a party of the Llanelli Naturalists recording in the dunes of Towyn Burrows, Pembrey, found a small population of an unknown Lathyrus species, nearest in main characters to, though obviously differing from, Lathyrus palustris L. of which the only known extant station in Wales is a fen less than a mile distant. It should be explained that this fen is actually derived from an old dune complex; although now inland and much altered, it still has affinities. As leader of the party I took the responsibility for collecting an adequate specimen for submission to Mr. E.J. Clement who kindly compared it with herbarium material in the British Museum. He suggested that it appeared to be an alien form of the circumpolar and polymorphic Lathyrus palustris L: var. pilosus (Cham.) Ledeb of North America and Asia, this being the nearest match Comparison was made difficult because of the remarkable paucity of pressed fruiting specimens, the variety being apparently unknown or rare in Europe. Since this determination Mr. Clement has called my attention to Plant Notes in B.S.B.I. Proceedings Vol. 4 Pt. 1. September 1960, where there is a report from D. Munro-Smith of L. palustris var. pilosus in a "swampy hollow in sand dunes Berrow 1958" det. N.Y. Sandwith 1959. Captain R.G.B. Roe R.N., recorder for V.C. 6, kindly informs me that the record of the late Dr. D. Munro-Smith was first published in *Proceedings of the Bristol Naturalists Society* for 1958 but that there have been no subsequent records of the plant from Berrow dunes or elsewhere in N. Somerset so it would seem that the plant did not survive.

The Pembrey population was sparsely distributed over a patch of about 6 x 4 metres with no apparent morphological variation between individuals. All shoots were slender, distinctly winged and scrambling rather than ascending by branched tendrils: the pods pubescent and setting seed freely. The flower colour was a rather lurid blue/crimson reminiscent of *L. montanus*. The habitat was a damp slack with a dense cover of *Accrocladium cuspidatum* over a humus-rich sandy soil with a pH about neutral. The immediate associates were:

Salix repens
Calystegia sepium
Valeriana officinalis
Succisa pratensis
Vicia cracca

Rubus caesius Filipendula ulmaria Epipactis palustris Angelica sylvestris Alnus glutinosa Potentilla reptans Prunella vulgaris Hydrocotyle vulgaris Galium palustre Iris pseudacorus

IRENE M. VAUGHAN, Tal Ebolion, Cilycwm, LLANDOVERY, Dyfed.

CRASSULA HELMSII

I was interested in the article on this species in the last issue, since Ted Bangerter (now in N.Z.) and I were the original finders at Greensted in 1956, unfortunately an error has crept in to Mr. Vaughan's E. Sussex data, probably a printing error since "Cockayne" is not a place in the county, and has been confused with the name of the author of the species.

To put the matter right we now have **two** known stations in v.c. 14 (E. Sussex), both found by the Seaford Nat. Hist. Soc. and communicated by Miss B.A. Kneller.

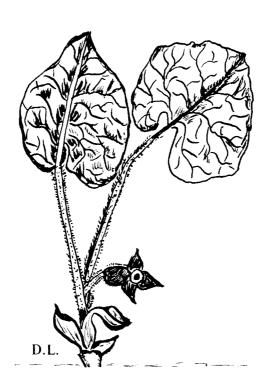
These are:

"Dewpond or bomb crater on downs above Newhaven, W.H. SPREADBURY 1965" (see BSBI Proceedings 6:130) seen regularly since.

Friston pond, 1978, Seaford NHS (seen by myself September 1978).

P.C. HALL, Almar, Fairmile Lane, Cobham, Surrey KT11 2BX

SLUGGISH



Recalling the cartoon on p.20 of BSBI News 17 showing the late Ted Lousley's slugs devouring *Orchis militaris*, Dorothy Lousley sends us her sketch of *Asarum canadense* the wild ginger of Canada which she saw in the Niagara Parks School of Horticulture, during a recent visit. Her reason for sending it ? It is one of that exclusive clique of species pollinated by - yes, SLUGS!

NEWS FROM MONKS WOOD

FRANK SPEAKING

This will be the last 'News from Monks Wood' which I shall sign. I am leaving at the end of the year to succeed Ted Smith as General Secretary of the Society for the Promotion of Nature Conservation.

I shall be sorry in many ways not to be able to devote so much of my time in future to work of direct interest to the BSBI: it is now 25 years all but a few months since I was appointed as Dr Walters' assistant on the Maps Scheme, and all that I have done since stems from those early happy days. However, I shall not be giving up botany completely, and I hope to continue to meet my old friends in my new capacity almost as frequently as in the past. The SPNC is deeply involved in wild plant conservation, and has collaborated with the BSBI and the Biological Records Centre on many aspects: the 'Act', the posters and the recently-published *Red Data Book*. This collaboration will undoubtedly continue: there is much still to be done. Also, for the time being at least, I shall remain Secretary of the BSBI Records Committee.

What will happen to botanical work at BRC? The Management of the Institute of Terrestrial Ecology is determined that the work of building up the botanical records at Monks Wood should continue. In the last six months we have embarked on a scheme to put all unincorporated data into our new computer system, and I shall continue to supervise that scheme until I can hand it on to my successor. I shall continue to live at Oundle Lodge, so that occasional visits to Monks Wood will not be difficult.

As no successor to Lynne Farrell has yet been named, and it will be a few months before my replacement is appointed, there may be delays in dealing with correspondence for a while. However, BRC staff at Monks Wood will, I am sure, answer all routine enquiries about records, cards, and maps. Enquiries and records concerning Red Data Book species will be passed on to Lynne Farrell, who visits Monks Wood regularly. Other correspondence relating to the BSBI in general or the Records Committee in particular are best sent to me at Oundle Lodge, Oundle, Peterborough.

This note gives me the opportunity to thank all those members of the BSBI who over the last 25 years have helped me professionally and personally to enjoy every hour of the work: it has been a privilege and a pleasure. Without your sustained interest, nothing could have been achieved. I step down looking forward enormously to joining the ranks of the 'amateurs' and bombarding my successor with record cards and impossible questions.

FRANK PERRING

CHANGES IN RECORDERS

- v.c. 44 Sadly, after many years of invaluable service to the Society, Mrs. H.R.H. Vaughan has found it necessary to give up the Recordership. R.D. Pryce has been appointed to succeed her.
- v.c. 77 Dr. P. Macpherson has been appointed to succeed the late R. Mackechnie.

RECORDERS' CONFERENCE 1979

The next BSBI Recorders' Conference takes place at Rogate Field Centre on the Hampshire-Sussex border from 5th-8th October, 1979. On this occasion the main topics for discussion will be the co-ordination of botanical recording in a county, including the merits of a Flora Committee, sources of errors in field botany, and the identification of certain difficult groups, particularly those to be included in the next part of the revised *Atlas of the British Flora*. Two excursions in the area, led by Dr. Francis Rose, are planned.

Whilst this meeting is primarily arranged for County Recorders and they have first claim on the accommodation, we will try to fit in as many other members who would like to attend as possible. Day visits are welcomed for those without a bed at the Centre. If you are not a Recorder but would like to come, please write to Dr. F.H. Perring, Oundle Lodge, Oundle, Peterborough PE8 5TN. All Recorders will receive an invitation in due course.

PUBLICATIONS

THE FLORA OF THE ISLE OF WIGHT

The Flora records the thousand or so species of flowering plants that form the natural vegetative covering of the Island. The present status, distribution and habitat of each species are shown and the changes taking place are discussed. Every name is given in both English and Latin. The Flora, composed of approximately 130 pages, constitutes the second largest publication dealing exclusively with the natural vegetation of the Island ever produced.

A whole chapter is devoted to a "Botanical Calendar", a feature we believe unique in county floras. Listing in chronological order suitable outings throughout the entire year, chosen for their unforgettable impression upon us during fifteen years of field work. Something for the country lover, the amateur and the professional botanist, and an absolute must for the visitor.

Machine sown spine with semi-stiff glossy cover in Astralux, illustrated with the Sea Stock against a backcloth of chalk cliffs terminating in that well-known landmark, The Needles: £3.00 per copy.

Please add 35p post and packing.

All cheques, postal orders, etc. should be made payable to BSBI Publications, Oundle Lodge, Oundle, Peterborough PE8 5TN.

BOTANICAL ATLAS OF THE HARROGATE DISTRICT

During the period 1966-1977, members of the Harrogate and District Natural History Society have undertaken a 1 km survey of that part of v.c. 64 which lies south of the R. Ure and embraces the whole of the valley of the R. Nidd. This is now published in an instant-print ring-bound format showing just under 800 distribution maps, 4 per page.

The work makes a valuable addition to our knowledge of the present day flora of Yorkshire. It can be purchased for £4.25 (post and packing included) from Miss M.R. Sanderson, 7 Stray Walk, Harrogate HG2 8HU.

F.H. Perring.

WARWICKSHIRE MUSEUM HERBARIUM

The task of cataloguing all non-Warwickshire British material in this herbarium is complete after over three years part-time work by museum 'volunteer', Miss Gladys Cooper. Many of the specimens date from the first half of the last century, and they have been listed by vice-county.

Copies will be sent free upon receipt of a large s.a.e. Please state which vice-county you require:

Mrs. Pam Copson (Keeper of Natural History) Warwickshire Museum Service, Market Place, Warwick.

BSBI Journals – back issues

Please note carefully the following arrangements: *Watsonia* — up to and including Vol. 11 part 4. *BSBI Abstracts* — up to and including Number 7. *BSBI Proceedings* — all.

Obtainable only from:

Dawson Back Issues Dep't Cannon House, Folkestone, Kent. (Payment made direct to Dawson & Sons Ltd).

Watsonia - Vol. 12 parts 1 & 2. BSBI Abstracts - Number 8.

Obtainable from Hon. Treasurer:

Mr. M. Walpole, 68 Outwoods Road, LOUGBOROUGH, Leics LE11 3LY. (Payment made to BSBI)

Other BSBI Publications (see separately issued list)

From:

F. and M. Perring, Oundle Lodge, Oundle, PETERBOROUGH PE8 5TN. (Payment is made to F. & M. Perring).

REMEMBER, REMEMBER!

BSBI NEWS 21

Contributions for this issue must reach the Editor
BEFORE 17th FEBRUARY 1979

THE BRITISH FLORA IN NEW ZEALAND

Since I wrote my first account of plants common to both the British Isles and New Zealand the summer season has advanced, bringing into flower here several more species well-known to British botanists. On my daily walks I frequently meet with Ranunculus sardous, Cardamine hirsuta, Silene gallica, Lotus angustissimus, L. subbiflorus, Mentha pulegium, Stachys arvensis and Prunella vulgaris on the roadside verges or along the ditches. Among the grasses tall Festuca arundinacea and Bromus uniloides overtop Agrostis tenuis, A. semiverticillata and Bromus breviaristatus, while Lolium perenne and L. multi-florum are everywhere; the ryegrasses, in fact, as pasture grasses, are the subject of innumerable articles in agricultural journals. Poa annua and P. trivialis are as common as in the British Isles but Briza media I have not yet encountered although B. minima graces many a ditch or berm with, less frequently, B. maxima. Hypochoeris radicata is probably the most common of all weeds in all types of habitat, closely rivalled by the ubiquitous Ulex europaeus, early introduced as a hedge plant and since much regretted. Undeveloped building sites and other waste areas house Sonchus oleraceus, Picris echioides, Brassica campestris, Geranium dissectum, Crepis capillaris, Raphanus raphanistrum, Sisymbrium officinale and Chenopodium album among others. Untended gardens usually have a good crop of Euphorbia peplus with some E. helioscopia, Fumaria capreolata, Vicia hirsuta and Galium aparine. As I write, more and more species spring to mind to be reserved for further notes.

Recently a young university student and I went to one of my favourite aquatic habitats to collect Glyceria fluitans, which he lacked in his herbarium. By chance he spotted a labiate growing by a ditch, just one plant of Melissa officinalis, easily recognised by its fragrance. Serendipity was with us this day as in a fairly deep creek, wherein I showed him native Sparganium and Potamogeton, we discovered Egeria densa in full flower, which neither of us had seen before. On returning home I looked up No. 12 of "B.S.B.I. News" to check the Egeria and found it keyed out along with Elodea canadensis and Lagarosiphon major, two further waterweeds proving potentially dangerous to waterways and lakes in New Zealand. Known as "lakeweeds" or "oxygen-weeds" they are often written about in technical publications, sometimes in the press and even appearing on television. Elodea originated about 1870 as an escape from the Acclimatisation Society's fish-raising ponds in the Botanic Gardens at Christchurch, according to A.J. Healy in his account of Canterbury adventives. I find no early records for the other two, which are doubtless post-war arrivals as aquarists' plants.

Space will, I hope, admit one short story to illustrate a tense moment in my pursuit of weeds and to point a moral for would-be collectors. Michaelmas-daisies are grown here, Aster laevis, A. novi-belgii A. novae-angliae being recorded as escapes, and I had a flourishing colony of the first under observation on a waste area otherwise overgrown with rank grasses and ruderal weeds. I put off collecting these for some time, probably because I had not yet identified them, until to my horror one day I observed a bulldozer bearing relentlessly down on them and only a breathless rush on my part halted the monster, the driver of which complying readily with my request to stop. The moral? Yesterday's plant habitat may well be to-day's human habitation. One specimen of the Aster has been put in the Auckland Herbarium and the others distributed to various Institutions, so far no-one has shrieked "wrong name".

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

NOTICES

UNIVERSITY OF LONDON Certificate in Field Biology and Diploma in Field Biology

Applications, Regulations and further details for these courses are available from P.M.J. Burtt-Jones, Senior Assistant.

Department of Extra-Mural Studies, University of London, 26 Russell Square, LONDON WC1B 5DO

The Certificate course extends over two years, with study mainly at home to a prescribed syllabus, but includes also two full-time practical courses each of two weeks duration held in the August of consecutive years. The next practical course will be held at Malham Tarn Field Centre from 1st - 15th August 1979. Last date for late registration for this (double fee) is 1st March 1979. The Diploma course is a new third year course for those already holding the Certificate.

PRELIMINARY ANNOUNCEMENT

Thirteenth International Botanical Congress Sydney, Australia, 21-28th August, 1981

The Programme will consist of 12 sections — molecular, metabolic, cellular and structural, developmental, environmental, community, genetic, systematic and evolutionary, fungal, aquatic, historical and applied botany. There will be plenary sessions, symposia, and sessions for submitted contributions (papers and posters). Chairman of the Programme Committee: Dr. L.T. Evans.

Field Trips will include visits to arid and semi-arid regions, eucalypt forest, rain forest, heath, coastal vegetation (e.g. Great Barrier Reef, mangroves) etc., and specialist trips. Chairman of the Field Trips Committee: - Prof. L.D. Pryor.

First Circular, containing details, will be mailed in August, 1979. Send your name and full address, preferably on a postcard, to ensure your inclusion on the mailing list.

Enquiries should be sent to the Executive Secretary, Dr. W.J. Cram.

Congress address — 13th I.B.C., University of Sydney, N.S.W. 2006, Australia. Sponsored by the Australian Academy of Science.

CONSERVATION LECTURE

The London Natural History Society invites BSBI members to a lecture, illustrated by slides, by P.J. Wanstall, on "Problems of Plant Conservation" in the Linnean Society lecture room, Burlington House, Piccadilly, on Wednesday 17th January 1979 at 6.30pm.

FRITILLARIES AND MILITARY ORCHIDS IN SUFFOLK

The Fox Fritillary meadow at Framsden will be open on Sunday 29th April 1979 and the Rex Graham Reserve, site of the Military Orchid, will be open on Sunday June 10th at 11.00am to 4.00pm.

REQUESTS

Watsonia Vol. 11 No. 4 (Wanted)

Stocks of this, the Lousley Memorial issue, are very low, and members who may have copies they are willing to dispose of are asked to send them to the Treasurer,

M. WALPOLE.

68, Outwoods Road, LOUGHBOROUGH, Leics.

ORKNEY: VICE COUNTY 111

Assistance from members visiting Orkney in 1979 on the second part of the revised *Atlas* will be welcomed. Plants in need of up-dating are likely to be Ranunculaceae subgenus Batrachium, and Fumariaceae, but I suspect I am liable to overlook aliens. I can supply copies of up-to-date field cards based on 10km or individual islands.

ELAINE R. BULLARD, Vice-County Recorder Toftwood, KIRKWALL, Orkney KW15 1SB

TRADITIONAL MEDICINE

Following the contribution in BSBI News 19 by Clifford Holliday in which he explained the meaning and purpose of Ethnopharmacology, some members asked what relevance this had for amateur botanists,

Mr. Holliday was invited to answer this question and here is his reply:

What can the amateur do in this field of study? A great deal without doubt. It is most important that old herbal and medical traditions are not lost in the onward march of urbanization. In many country districts a great deal still exists, and an attempt is being made throughout Europe to record the facts before they are lost to posterity.

Discussions with residents in country districts, or even in towns — especially with the elderly — on the ways in which plants and other material have been used in traditional medicine, can frequently produce interesting results.

Such a survey in the United Kingdom could be invaluable and even lead to the introduction, after careful scientific evaluation, of new remedies.

Work of this nature is being co-ordinated in Europe by a member of the Botanical Society of the British Isles who is resident in Lausanne, Switzerland, and further information regarding the kind of information needed can be obtained from :

Mr. C.B. Holliday, FPS, FLS, 1, Chemin de Lucinge 1006 Lausanne, Switzerland (Tel: (021) 23.81.87)

What he is trying to do is to assess and co-ordinate the information received, in the form of a book or some other publication, and produce a pool of information relating to traditional medicine in Europe. He would be delighted to receive information from BSBI members who are interested, and to correspond with them on this subject. All letters received will be answered and commented upon.

THE BOTANICAL SOCIETY OF LONDON

In her note in *BSBI News* 19 on the BSBI Emblem the Honorary General Secretary referred to the Botanical Society of London as the BSBI's 'forerunner'. Really, though, it was more than that: it was the Society's own ancestor, albeit a little indirectly.

As quite a number of members know already, in connection with the History of the Society I am undertaking in anticipation of our 150th Anniversary (1986) I am trying to identify all the 300-400 people whom it has proved possible to trace as having belonged to the BSL. Unfortunately the only membership list published appeared a mere two and a half years after its founding; but many further names can be gleaned from the one minute-book that has survived, from the reports of the meetings in a large number of periodicals, and from the labels of specimens received through its annual Distribution that are now preserved more particularly in H.C. Watson's herbarium at Kew.

Many, of course, are familiar figures and call for no further research. But in a daunting number of cases scarcely more than the name has come down to us and even the burrowings of Britten and Boulger failed to turn up such basic details as their occupation or their years of birth and death.

As these one by one emerge into the light, an impressive number are proving to be well-known in non-botanical connections: as naturalists of other persuasions, as experts in other scholarly fields or, more unexpectedly, as social reformers. The effort involved in hunting them down is thus turning out to be well worth while — even if it was not virtually the only means now remaining of learning more about the BSL itself.

There are still a few people I cannot identify after trying all the obvious sources. Many of these are likely to have formed herbaria; some may also have been contributors of local records. In the hope that their names may ring some bells I list them below and, needless to say, would be grateful for any clues:-

James Davis Blyth (Sierra Leone connections)
J. Brown
William Browne
J. Cowell
*James Dean

*Mrs. Dennison
*James Dickinson
John Ellis (Farnham)
William Evans (Llanrwst)
Miss Evans (Coventry)

John Anderson (Richmond)

James Halley (Madeira connections)

George Hickman Mrs. E.M. Jones Mrs. W. Jones (Sussex)

*P.F. Keir W.S. Lamberger *Charles Lingwood
W. McEwen (Arundel)
H.A. Marten (d. 1847)
Mrs. Morgan (Southsea)
C. Morley or Murley (Cheltenham?)
Charles Nichols
F. Robins
Miss Roods
Henry Taylor
Mr. Tovey
D. Walker (Colchester?)
Miss Martha Wilson (Belfast)
Mrs. Wright

Most flourished in the period 1840-50. Those marked * are known to have been London residents — but others may have been as well.

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

LETTERS

ATLAS OF FERNS: A CORRECTION

Mr. R.H. Roberts of Bangor has pointed out that I failed to refer to his papers in Watsonia 8: 121 - 134 (1970) and Brit. Fern Gaz. 9: 283 - 287 (1966). Both of these contain relevant and important information on the taxonomy and identification of Polypodium australe and I apologise for this omission. Roberts points out that counted diploid plants show an indurated-cell number in the annulus much higher than previously thought and well above the range of P. interjectum (8 - 10). Isolated counts may give up to 18, a figure normally associated with extreme cases of P. vulgare s.s.

A.C. JERMY, Botany Dep't. British Museum (Nat. Hist.) LONDON SW7 5BD.

THE IDENTIFICATION OF CALLITRICHE spp.

Many recorders find *Callitriche* spp. some of the most puzzling and difficult to identify in the field. *British Water Plants*, Haslam, Sinker and Wolseley, gives two keys:

- 1. Simple identification key based on leaf shape and
- 2. Accurate identification based on 'mature fruiting plants, preferably in still water'.

L.J. Lewis-Jones and Q.O.N. Kay, in The Cytotaxonomy and Distribution of Water Starworts (Callitriche sp) in West Glamorgan, Nature in Wales 15 (4) September 1977 state that "The best characters for identification of water starworts are the shape and structure of the fruits, the morphology of the microscopic peltate hairs which may be present on the stem, the characters of the pollen grains and styles, and the chromosome number. Leaf-shape differs between typical forms of different species, but shows great plasticity and is often a most unreliable character because it depends so much on the habitat and can be completely different in submerged, floating and terrestrial plants of the same species, or even in different parts of the same individual". The causes of the difficulty of this group are given as: the frequent absence or scarcity of the fruiting plants; the unreliability of the leaf characters and the need to use a microscope to examine the peltate hairs, pollen grains, and for determination of chromosome numbers. The authors suggest that all water starworts (with the possible exception of C. stagnalis were seriously under-recorded in the Atlas of the British Flora, Perring and Walters 1976. The published field observations from West Glamorgan in 1975 form possibly the first local survey of Callitriche spp. in Britain using chromosome counts and studies of chromosome morphology. Identifications were made using fruit, microscopic and chromosome characters and C. stagnalis by far the commonest sp. found in the survey, was apparently always diploid 2n = 10.

C. platycarpa was found at four localities and was always tetraploid, 2n=20. The authors found that the chromosome count was the most rapid and reliable way to distinguish between C. stagnalis and C. platycarpa.

C. obtusangula found at four sites, 2n=10.

C. hamulata found at only 2 sites, 2n=38.

C. brutia (C. intermedia ssp pedunculata) found at 3 sites, 2n=28. (This sp. was growing at sites in the western Gower in association with Ranunculus tripartitus).

Permission to quote extracts from the Paper was given by the Editors, Nature in Walex

MARY BRIGGS

White Cottage, Slinfold, HORSHAM, Sussex RH13 7RG.

LAPSANA INTERMEDIA

At the Exhibition Meeting in 1977, R.J. Pankhurst staged an exhibit dealing with Lapsana communis subsp. intermedia; see the note in Watsonia 12: 196 (1978). It seemed strange that the botanist who first recorded this plant for Britain (as a species) had not been consulted by Pankhurst who described its discovery vaguely as "Tottenhoe, Beds., v.c. 30, on chalk in the 1940's".

It was discovered and a specimen taken on 3rd July 1945 under the number *Milne-Redhead 5340*, and was determined by B.L. Burtt and laid into the Kew Herbarium. More recently the determination was confirmed by C. Jeffrey. The plant was growing on a steep north-facing railway embankment (not on the chalk grassland of Tottenhoe Knolls), where it would receive no sunshine from November until February — a strange habitat for a plant from warmer climes. It was competing satisfactorily with native vegetation and was not in the kind of habitat one associates with casuals or garden outcasts. There were no houses or buildings anywhere near the site. When first seen, its bright yellow capitula were taken for those of a *Hieraceum* sp.

In cultivation it proved to be a perennial, not a winter annual as *L. communis*, from which it is also easily distinguished by its bright, not pale, yellow capitula, as well as by the characters stated by Pankhurst. In the cultivation it showed considerable adaptability, growing much larger in good soil. At Petersham on sand and in Suffolk on calcareous loam it is equally at home, sowing itself and becoming a weed.

Why this taxon should be reduced to a subspecies of *L. communis* is beyond my comprehension! Can it be that the computer which Pankhurst demonstrated at this same meeting, made this decision!

E. MILNE-REDHEAD.

43, Bear Street, Nayland, COLCHESTER CO6 4HX.

SEED FROM RARE PLANTS

Having now been concerned with the collection of seed from nationally rare plants, for over 4 years, I welcome wholeheartedly Mary Briggs' Note in *News* No. 19 on "Collection of Seed from Rare Plants".

I have long advocated that this should be centrally organised and that the decision to collect can only be taken by one person — I do not believe that this work can be delegated, even to County Recorders. Few County Recorders have the time to revisit a site — perhaps 10 times in a season, to collect the correct mixed sample from flowers maturing over a long period, and to document the collection properly.

Despite all the difficulties experienced in collecting seed, (not least, being beaten to it by the rabbits in some years), there is already seed banked at Kew of many of our rare species (at least from Eastern England).

Obviously help is needed in collecting seed, but the collector needs to be chosen almost as carefully as the time and place to collect! So please, don't collect unless Lynne Farrell asks you to, and please, use the Kew Seed Bank at Wakehurst, if you need seed!

GIGI CROMPTON (Mrs) University Botanic Garden, CAMBRIDGE CB2 1JF.

FRAGARIA MOSCHATA Duch, and F. VESCA L.

As a strawberry breeder I may be able to clarify some of the diagnostic features of the wood strawberry, F. vesca (diploid) and the musk strawberry, F. moschata (hexaploid) discussed by A.C. Leslie in B.S.B.I. News No. 18.

I have examined several accessions of F. vesca and F. moschata in the living species collection of the West of Scotland Unit of the Scottish Horticultural Research Institute and find the two species quite distinct. In general agreement with other breeders (e.g. Advances in Fruit Breeding, ed. J. Janick & J.N. Moore, Purdue University Press, 1975, p. 72) the characters which I would use to distinguish the two species are as follows.

The leaves of F. moschata are dull green, rugose with deep set venation and heavily pubescent on lower and upper surfaces. The leaves of F. vesca are thinner, slightly glossy, light green and superficial venation and almost glabrous above and below. Petioles, pedicels and peduncles are heavily pubescent in F. moschata but almost glabrous in F. vesca. The flowers of F. moschata are 25-35 mm in diameter, those of F. vesca 10-20 mm in diameter. The fruit of F. moschata is generally larger than that of F. vesca. Degree of pubescence is the most reliable character for separating the two species.

I consider that pose of pedicel hairs and leaf shape are of doubtful diagnostic value as both are highly variable. The pose of hairs on petiole, peduncle or pedicel is adpressed and ascending on emergence from the crown, later becoming reflexed or spreading. Thus pose of hairs is partly age dependant.

Appressed calyces on ripe fruit is not a good character for distinguishing the garden strawberry, F. \times ananassa Duch. (octoploid) from F. vesca or F. moschata as the calyx may range from clasping in some cultivars to reflexed in others. Indeed F. \times ananassa is extremely variable as a result of breeding. It may be distinguished from F. moschata in being generally less pubescent and from F. vesca in usually having larger flowers, thicker leaves and stouter petioles and runners.

Incidentally I would be extremely interested to hear from anyone who finds F. vesca with symptoms of red core disease ($Phytophthora\ fragariae$). This important disease of commercial strawberries has never been recorded from wild populations of F. vesca. This is odd since F. vesca is susceptible. Infected plants wilt in the summer and dissected roots of dying plants show a characteristic reddening of the stele.

DAVID MACINTYRE,

Riverside Cottage, Stairaird, MAUCHLIN, Ayrshire. KA5 5TB.

POLLINATION MEETING

Thank you, Editor, for your kind remarks (BSBI News 19, p.20) about the Pollination Meeting in Cambridge on 12th August. You have erred however (no doubt through my fault) in crediting me alone with the conception and execution of the meeting. The original idea was conceived by Dr. Crane and Mrs Briggs after the 1977 Newcastle Conference and without their inspiration it wouldn't have happened. The detailed planning and execution I shared with Mr Prys-Jones, who was in fact joint leader, and we had much helpful advice from Dr Corbet and Messrs. Palmer and Unwin.

PETER YEO, University Botanic Garden,

CAMBRIDGE CB2 1JF.

HORNBEAMS ON STRIKE?

Hornbeam (Carpinus betulus) catkins have been hard to find in 1978.

This is not for lack of hornbeams here at Cuffley in Hertfordshire. Here hornbeam is numerically our most abundant tree, although as coppice or hedge it can be inconspicuous.

Nor are catkins normally difficult to find. I have records each year from 1970 of dates first seen: the mean and median being 3rd April, the earliest 16th March (1975) and the latest hitherto 28th April (1970). (This scatter parallels Greater Stitchwort Stellaria holostea, mean 7th April, median 10th April, earliest 22nd February (1975), latest 2nd May (1970), and cherry Prunus avium, mean 14th April, median 15th April, earliest 28th March (1975) latest 3rd May (1970) but these two species have flowered normally, if late, this year). In 1976 when we needed photographs for a lecture, the massed male catkins gave whole trees a fine auburn colour.

This year was different; repeated searches went unrewarded until, on 21 May I reported the problem to the party of 23 from Cheshunt Natural History Society and London Natural History Society who were botanizing with me near Hertford. Success! We found one rather overblown male catkin.

Why were hornbeam catkins not initiated last autumn? Was this tree, with a "continental" distribution, inhibited by our Jubilee summer? Or was the cause an earlier good crop of fruits? Or what?

H.J. KILLICK, 17 Bradgate, Cuffley, POTTERS BAR, Herts EN6 4RW.

HELICHRYSUM and OROBANCHE

In my garden here which is on chalky soil of the Icknield Series, I grew this year a tall cultivar of the Straw Flower (*Helichrysum* sp.). When digging up the plants I found associated with each clump a single plant of Common Broomrape (*Orobanche minor*). There were seven *Orobanche* plants in all and they occurred nowhere else in the garden which contained twenty-two other species. *Collins Pocket Guide to Wild Flowers* (McClintock and Fitter) quotes a number of hosts, including garden plants, for *O. minor* and its micro-species.

Here is one which it seems to parasitize very successfully. Would any other readers like to comment?

D.P. STRIBLEY, 13 Yew Street, Houghton Regis, DUNSTABLE, Beds.

POST CODES

You are reminded that more and more postal sorting offices are becoming mechanised.

When writing to BSBI News or any of its officers or contributors,

PLEASE INCLUDE YOUR POST CODE in your address.

BOUQUETS

Our Hon. Gen. Sec. has received on behalf of BSBI the following cordial letter from our colleagues in Holland:

As secretary of the Royal Botanical Society of the Netherlands I have the pleasure to thank you very much indeed for everything you did to make the excursions for the Dutch florists to East England in July 1977 such a success.

I hope that the Dutch Botanical Society will have the opportunity sometime, to arrange a trip to Holland for members of the Botanical Society of the British Isles.

And, in the course of correspondence, these complimentary remarks from the INSTITUTO DE BOTANICA, Sao Paulo, Brazil.

I should like in any case to say how much I appreciate receiving, through the B.S.B.I., so much information about the British flora on which, in spite of a good few years of on-and-off residence in Brazil, I was brought up and which, rather like being brought up on a chalk soil, is something that one does not lose easily.

ALASDAIR G. BURMAN

Rua Bela Cintra 141, Apto. 22, Consolação, 01415 São Paulo, Brazil.

SIR EDWARD SALISBURY

As this issue went to press, it was with great sadness that we learned of the passing of Sir Edward Salisbury, who died peacefully at his Sussex home aged 92. He was an Honorary Member of BSBI, having belonged to the Society for over sixty years. Many thousands of botanists and ecologists owe him an incalculable debt for his teaching and writings which stimulated their interest in these sciences. Active to the last, Sir Edward was giving a learned dissertation on orchid seeds only a few days before his death.

JOHN CARR

We also have to record the death of John Carr while leading one of the recording expeditions to Spain for which he became notable. He was a dynamic personality of great vitality and he will be sadly missed especially at BSBI Exhibition Meetings where he showed with enormous enthusiasm the results of his extensive work in the Iberian peninsular.

Fuller obituaries will appear in Watsonia.

APPEALS

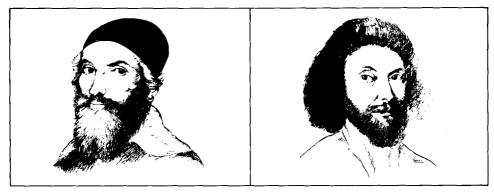
PIONEER PLANTSMEN

This was John Tradescant – pronounced with the *second* syllable accented – who, coming from Suffolk farming stock, became gardener successively to the first Earl of Salisbury, the Duke of Buckingham, and finally Charles I. At his nursery in Lambeth he collected and introduced into cultivation an immense variety of exotic plants, among them such now familiar subjects as Sumach, Tulip tree, Passion flower, Virginia creeper, Evening primrose, Golden rod, Rudbeckia, Phlox and the Runner bean.

In the decades of the late 16th and early 17th centuries, when merchant adventurers flourished, overseas trade was booming. It was also the age of stately home building, with extensive gardens an essential adjunct. For the furnishing of these the new nobility and gentry demanded unusual and peculiar trees, shrubs and herbaceous plants which John Tradescant was enterprising enough to provide. An experienced gardener, he made expeditions to the Old World: France, Holland, Russia and Algiers, his son John three times visiting the thriving New World colony of Virginia.

JOHN TRADESCANT (FATHER)





Drawings by Phyllis Morgan from the originals in the Ashmolean Museum, Oxford.

From these journeys and from the numerous travellers and merchants with whom they had contacts, the two Johns obtained not only plants but an amazing collection of "curiosities"; carvings, coins, costumes, weapons, stuffed animals and fish. This museum was housed in their own home, Town House which became popularly known as "The Ark" and was a notable attraction for visitors to London. The site of their activities is today only identifiable by two unpretentious streets leading off the South Lambeth Road and named Tradescant Road and Walberswick Street. The latter recalls the Suffolk village, home of the Tradescant's relatives where, in a garden owned by Mea Allan author of *The Tradescants* many of the plants they introduced are still grown.

Across Lambeth Bridge, at the gates of Lambeth Palace, is the redundant church of St. Mary the Virgin. Here is the family tomb of John Tradescant, his son John who succeeded him as Royal gardener, their wives and other members of the family. They can truly be said to have laid the foundations of English gardening. Their collection of "curiosities" formed the basis of the Ashmolean Museum, Oxford, Britain's first public museum.

THE TRADESCANT TRUST

A PROJECT TO INTEREST ALL GARDENERS THROUGHOUT THE WORLD, TO INCLUDE THE ESTABLISHING OF A MUSEUM OF GARDEN HISTORY



THE TRADESCANT TRUST, a registered charity, has been set up with two aims:

- 1. To convert the church into an active centre for all interests relating to gardens, gardening and Conservation, where open meetings, demonstrations, lectures, exhibitions and educational courses can be held and to establish a museum of the History of Gardening.
- 2. To create in the churchyard the TRADESCANT MEMORIAL GARDEN, planted with the species shrubs and flowers they introduced, with modern hybrids illustrating the development of horticulture.

An international appeal has been launched for funds to restore and convert the church to its new use and to establish the Garden. A grant has been made to the Tradescant Trust by the Department of the Environment towards the target of £250,000.

To keep the public informed of progress and to widen support the FRIENDS OF THE TRADESCANT TRUST has been formed; minimum subscription £1.00 (£1.50 abroad) to MRS JOHN NICHOLSON, 7 The Little Boltons, LONDON SW10 9LJ, who will gladly send further details, and will also welcome donations to the general fund.

BARDSEY ISLAND - N. WALES

The Bardsey Island Trust is appealing for £200,000 to purchase and endow for the future this Welsh island which lies off the Lleyn coast (Caerns, vc 49). Its rich heritage, with monastic associations dating back to the 6th century, includes, besides the remains of the Abbey and considerable evidence of prehistoric occupation, a wide range of wild life - (bird migration is monitored by Wales's only Bird Observatory) - and, a relatively rich flora comparable to that of the similar-sized Caldey Island in south Wales. There are 'herbal' - perhaps monastic - associates such as Artemisia absinthium, Ballota nigra, Conium maculatum, Hyoscyamus niger, Inula helenium and a variegated 'apple-mint'. All these have only limited occurrence in this part of Wales. Other species of restricted distribution in north Wales include Ranunculus parviflorus, Linum bineryosum, Schoenus nigricans, Thalictrum minus. At or near their northern limit are Juncus acutus and Trifolium subterraneum. Spiranthes spiralis appears regularly; Antennaria dioica and Linum bienne have been reported in the past. Lamium amplexicaule and Coronopus didymus are common vegetable-garden weeds. The lichen flora is the richest of any (British) island and has its own, as yet undescribed, endemic. A programme of scientific work is envisaged by the Bardsey Bird and Field Observatory, which covers all 'field' work not only ornithological.

Contributions towards the conservation of this unique island should be sent to:
Neville Lewis, Appeal Treasurer, Bardsey Island Trust Ltd., Midland Bank, 274 High St.,
Bangor, Gwynedd, LL57 1RU, North Wales.

ANN CONOLLY

THE HIERACIUM COLLECTION AT MERSEYSIDE COUNTY MUSEUMS

Here is the list referred to by Mrs. Barbara Greenwood in her article under this heading in BSBI News 19 p.30.

```
H. amplexicaule: 23, 36, 85
                                                                              H. lasiophyllum: 36, 40, 43, 47, 49, 90, 92, 98, H38
H. pulmonarioides: 62
                                                                              H. cillense: 42
H. nitidum: 88, 90, 92, 106, 108
H. jovimontis: 90, 92
H. speluncarum: 34, 88
H. holosericeum: 88, 90, 92, 97, 108
H. alpinum: 90, 92, 94, 97
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                                                                              H. cyathis: 6, 42
H. decolor: 49, 57, 64, 65
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H. calenduliflorum: 90, 92, 97
H. pseudocurvatum: 90, 92, 97
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Congratulations to the GLOUCESTER NATURALISTS' SOCIETY which has recently celebrated both its 30th anniversary and its 100th member. BSBI is represented by many members active in both societies, a list of the GNS founder members includes:

Mr. E. Milne-Redhead (President BSBI 1969-71 and President GNS since 1968)

Mrs. S.C. Holland (Editor of GNS Journal since 1962 past council member BSBI)

Miss D.E. de Vesian (Botanical Recorder GNS 195471)

H. trichocaulon: 9, 11, 12, 14, 17, 41

H. eboracense: 17, 34, 36, 41, 42, 50, 57, 60, 62, 64, 65

Mr. C.E. Townsend (Botanical Recorder GNS 1948-1953)

Present Botanical Recorders for that Society are: Miss H.M. Caddick and Mrs D.S. Dudley-Smith, and their Botanical Field Meeting Secretary is Mrs J.M. Allen — all BSBI members maintaining excellent links between the two Societies. Recording for the forthcoming Supplement to the Flora of Gloucestershire and a survey of *Veronica filiformis* in Glos. are among the present botanical activities of the Society.

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