B.S.B.I. NEWS

Dec. 1990

No. 56

Edited by R. Gwynn Ellis

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Cardiff CF1 3NP

Peucedanum officinale L. del. C. Hogg © 1990

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CONTRIBUTIONS INTENDED FOR

BSBI NEWS 57

should reach the Editor before

28th FEBRUARY 1991

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NOTICE TO MEMBERS

Nominations for vacancies on Council, in writing, signed by two members of the Society and accompanied by the written consent of the candidate to serve, if elected, should be sent to the Hon. General Secretary, 9 Arun Prospect, PULBOROUGH, West Sussex RH20 1AL to arrive BEFORE FEBRUARY 1st 1991. (See Year Book 1991 for the list of present Council members May 1990 - May 1991).

MARY BRIGGS
Hon. General Secretary

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DIARY

N.B. These dates are supplementary to those in the 1991 Calendar.

FEBRUARY
1 : Deadline for applications for grants from the Oleg Polunin Memorial Fund (see BSBI News 55: 37)

MAY
24-30 : South Western Naturalists' Union Study Tour, Tiverton, Devon (see page 29)

JULY
8-11 : British Pteridological Society International Symposium (see BSBI News 55: 38)
13-19 : British Pteridological Society, Centenary National Tour (see BSBI News 55: 39)

See also pages 30 & 40-42 for details of other courses and meetings

EDITOR

CORRIGENDA CORNER

A few corrections to the last issue (No. 55) to report this time.

On page 7, the postcode for Mike Mullin's address should have been W13 9UQ.

On page 23, the legend to the **Orobanche maritima** illustration got a bit mangled! Please replace with the corrected version below.

Fig. 1. **Orobanche maritima** : A from Pembrey Burrows, South Wales (1990); B & C from East Kent (1963). Specimens in **NMW.**

On page 25, **Crocosmia masonorum** should have been spelt **Crocosmia masoniorum.**

EDITOR

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EDITORIAL

BSBI Yearbook
A new BSBI publication appears with this issue of BSBI News, the BSBI Yearbook. Many of the administrative items which used to appear on page 2 of News will now be printed in the Yearbook. The 'List of Members' will probably be printed every second or third year to save costs, but the rest of the contents will be updated annually. The editor, Mrs Mary Briggs, will be pleased to have your comments and would welcome suggestions for additional items that could be included.

BSBI News
A shorter than usual issue of News this time, in fact the shortest for three years. This has enabled me to increase the page margins but, alas, not the size of print. Please do send me items for publication, they need not be long and learned; anything that might interest or amuse members will do. Could I also remind potential contributors that illustrations, either photos or drawings, to accompany notes will be most welcome.

This issue should be the last to be printed on my old daisywheel, although the addition of a large cooling fan has improved the quality of the printout, many problems still remain.

An apology
I must apologise for the late arrival of this issue of BSBI News. Commitments at work - preparing The Flora of Glamorgan for the publishers; for the BSBI - preparing the new BSBI Yearbook for publication; and at home - my elder son Carl got married just before Christmas; all combined to make December a very hectic month and held up delivery of copy to the printers.

Congratulations to the happy couple - Carl and Sue.

The Celtic Fringes
This year your intrepid editor has visited the 'Celtic Fringes'. A Whitsuntide trip to Scotland included visits to Ness, Fort George, Inverness, Loch Ness, Fort Augustus, Ben Nevis, Ben Lawers, Loch Lomond, to name but a few - all in 3 days!! The most memorable but frustrating experiences were passing close by numerous distilleries, with no time to stop for free samples, and arriving in the car park of Ben Lawers just as a mist descended that was so thick that by comparison Yorkshire Fog was a bright sunny day!

An early autumn trip to Dublin, to attend the Irish AGM, was equally memorable, but by no means frustrating. The AGM itself was very enjoyable and was attended by

25% of all Irish members, but for me was surpassed by the AGM dinner, held in a Chinese Restaurant, and attended by no fewer than 10% of the membership. If these percentages were approached in the rest of Britain, we would need to hire much larger halls!

May I record here my thanks to all my Irish friends who made Maria and I so welcome. We definitely need more BSBI functions in Ireland (AGMs, Recorders' Conferences, etc.)

Red Data Book Pubs

Clare and Mark Kitchen have initiated a new series which will take us to the best pubs in Britain from which to see some Red Data Book plants and sample some real ale at the same time. Here are two examples to start the ball rolling.

The 'Double Locks' has **Sagittaria rigida** growing in a nearby canal, whilst the 'Daneway Inn' can boast of two RDP plants in nature reserves in its immediate vicinity, but their names must remain confidential.

Any contributions from other members would be welcome.

EDITOR

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HON. GENERAL SECRETARY'S NOTES

More BSBI Voices on the Air recently have included Frank Perring, with Derek Jones on the racecourse at Newmarket; discoursing on Squinancywort and there was laughter on the air too when Frank produced that name! Andy Byfield was talking on location on the Basingstoke Canal, and our Michael Scott on the Natural History Programme and as Question Master of the Litmus Quiz.

Following our notes on conkers, *scardic torrents* and *elephant droppings* (BSBI News **53**: 6; **54**: 31, **54**: 25, 28) Michael Bentine on his visit to the Victoria and Albert Museum in 'Down Your Way' was describing explosive elephant droppings, invented during the last war to be scattered on jungle tracks in the Far East for Japanese jeeps to drive over... [perhaps the elephants were fed on conkers and produced their own explosive, see notes on page 20. Ed.].

You will see a new name above as Hon. Field Secretary - Roy Smith has retired after six years in which he arranged field meetings in England and overseas with careful planning for even coverage as far as possible, with meticulous detail, then co-ordinated these with the Welsh, Scottish and Irish meetings for the Programme. We are very grateful to Roy for planning so many successful meetings.

We are pleased now to warmly welcome Elinor Wiltshire, who will be steering the 1991 field meetings through the year, and, with the Meetings Committee will plan the programmes for future years. She will be pleased to hear from members with ideas for meetings in 1991.

Some members have been enquiring about a v.c. overlay for the new 'Poacher's Pocket' sized edition of the Atlas of the British Flora. The v.c. map on the page after p.440 can be photocopied onto acetate to give a satisfactory transparent overlay. My London photocopy shop charged 60p for this.

Maura Scannell reminds us that the map of the Primrose in the Atlas and reprints is incorrect for Ireland. Her note in BSBI News **15**: 29 (1977) explains this, and, for the benefit of members who have joined the Society since 1977, the note is reprinted on page 18. The revised map for **Primula vulgaris** has since been published in Critical Supplement to the Atlas of the British Flora (1968) ed. Frank Perring where, as Maura says, it is the uncritical species to be published in a critical atlas. The revised map was also published in Primulas of the British Isles 1989 Shire Publications by John Richards - see Chris Preston's references in An index and bibliography to

distribution maps published between 1962 and 1989 in Atlas of the British Flora 1990.

Congratulations - again - to Eva Crackles who has received yet another honour on the publication of her Flora of the East Riding of Yorkshire (see BSBI News **55**: 6). The Hull Civic Society awarded to Eva the 'Good Mark' for October 1990, the citation reads "partly in recognition of a lifetimes work in the fields of botany and plant conservation, and partly because, as the successor to the only previous Flora for this area published in 1902, her book is now the authoritative and indispensable source of information on the plant life of the East Riding ...' Eva being the v.c. Recorder for BSBI was also mentioned in the citation.

MARY BRIGGS, Hon. General Secretary

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RECORDERS AND RECORDING

You will have found the updated 'List of Vice-county Recorders' in the Year Book, and we have one new Recorder to welcome: Michael Wyse Jackson who joins his brother Peter as Joint Recorder for North Kerry H2.

Also in the new Year Book is the updated 'Panel of Referees and Specialists'. This includes several changes and members are asked to read it carefully before sending off specimens.

It should no longer be necessary to remind members that **RETURN POSTAGE IS ESSENTIAL WHEN SENDING SPECIMENS FOR IDENTIFICATION** but John Trist's plea printed below makes it obvious that it is!

MARY BRIGGS, Hon. General Secretary

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A GRASS REFEREE'S REQUEST FOR HELP

Every year over 200 specimens of grasses, covering all of the genera of grasses in Britain and Ireland, come through my post. The air-dried condition and presentation in a loose heap, involves much initial handling and separation, and causes problems in determination and packing for return. Many specimens also arrive with no information as to the origin of the material.

I now ask for reciprocal aid and will in future only accept specimens semi-mounted on thick paper or thin card, accompanied by a brief note on habitat. There is also need for a respectful reminder that the inclusion of return postage is appreciated.

P.J.O. TRIST, Glovers, 28 High Street, BALSHAM, Cambridge CB1 6DJ

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SPIRANTHES ROMANZOFFIANA AND JOHN RAVEN

Following the publication of The Natural History Museum's botanical survey of Mull (Bangerter and Cannon 1978), John Raven (J.E.R.) started "to investigate the apparent absence from Morvern of plants that [were on Mull and] might well be expected there. By now he knew the terrain and the plants so well that he was able to predict where the absentees, if they were there at all, might be found and, ... he would as likely as not succeed in turning them up, or at least in understanding the reason for their absence" (David 1981).

On 9 August, 1964, J.E.R. discovered **Spiranthes romanzoffiana** Cham., an absentee on Mull, in Morvern (see below). In a paper which he never saw in print, J.E.R. wrote "From my one visit to that district, which was too early in the season to justify a

search for it, I should be not in the least surprised if the **Spiranthes** were yet to be found in one of the damper parts of [that district of Mull]." As someone who never met J.E.R. but has come to admire him, it was with particular pleasure that I discovered **S. romanzoffiana**, new to the Isle of Mull, on 21 August, 1990, in "that district." I am in little doubt that the site is the one J.E.R. had in mind when he wrote the above. Dick David (pers. comm.) remarks that J.E.R.'s "'ecological eye' was most remarkable and he could almost always predict where a plant would be found."

In my article on "The History of the Recording of Spiranthes romanzoffiana in Britain" (Horsman 1989) I attributed the discovery of **S. romanzoffiana** on the British mainland to J.E.R., in Ardnamurchan in, I believed, the early 1950s. Having since spoken to Faith Raven, and corresponded with Alf. Slack, Brian Brookes and Dick David, all of whom I thank, I can now chronicle the actual sequence of events.

On 10 August, 1954, Rex Graham found **S. romanzoffiana** in v.c. 97, Westerness, new to the British mainland. This is the dot in the Great Glen in the Atlas. Alf. Slack tells me "This is an error, Rex Graham used post-war military maps and the grid on them was different by about 30km from the modern grid. He evidently found a colony [in Ardnamurchan] (but exactly where I have not discovered)."

On 7 August, 1956, Mrs Tanner found **S. romanzoffiana** in Ardnamurchan. I found one flowering plant at this site this year. I would be most interested to know something of Mrs Tanner.

In chronological order there follow the south Devon discovery in 1957 and Alf. Slack's discoveries of two new sites in Ardnamurchan in 1958 and 1961. The only records for **S. romanzoffiana** in J.E.R.'s "black book" are those he made in Morvern on 9 August, 1964, and in "the following week."

Thus, Rex Graham discovered **S. romanzoffiana** new to the British mainland. His is a name I associate with the ghost orchid in the Chilterns (Graham 1953). J.E.R. never claimed to have discovered **S. romanzoffiana** new to the British mainland, and, indeed, having read "John Raven by his friends", it would obviously have been totally against his nature to have made such a claim.

This opportunity is taken to clarify a number of other points in my earlier article. Firstly, not only the 1957 south Devon discovery but also that made in western Ireland in 1958 resulted from the impetus of the Atlas project (Perring 1959). Secondly, reference was made to Druce stating in 1923 that "There is just a chance of the Coll plant [found in 1921] proving to be **S. romanzoffiana**..." I have since come across a further Druce reference following the discovery of the plant on Colonsay in 1930: "I have little doubt that it is the 'Spiranthes autumnalis' recorded by Mr J.B. Simpson from the island of Coll; see Rep. B.E.C., 213, 1923, where I then suggested that it was Romanzoffiana" (Druce 1930). Finally, having corresponded with Basil Gibbons about the Kilberry record referred to by Cunningham and Kenneth (1979), I have come to the conclusion that the record is authentic.

I have been surveying **S. romanzoffiana** in Scotland annually since 1985 and have now visited all the recorded sites and many others. According to the results of my survey, the Scottish headquarters of the plant is the Isle of Coll. In 1989 one population on Coll consisted of 155 plants in flower or in bud. One can only guess at the number of vegetative plants. It is interesting to note that the MacLeans of Coll purchased the ground where J.E.R. found **S. romanzoffiana** in Morvern in 1528 (Gaskell 1968). They held this land for nearly three centuries until it was purchased in 1800 by Alexander MacDonald of Glenaladale (Gaskell 1968). He remained at Glenaladale, which is now a very remote spot on one of Ardnamurchan's lochs. In 1976 Tom Tolman found several plants of **S. romanzoffiana** near Glenaladale House.

One method of seed dispersal in **S. romanzoffiana** is by water. Glenaladale is well up the loch at the lower end of which a short river flows out to the sea. All the Ardnamurchan sites for **S. romanzoffiana** are at this lower end and along this river. I have found plants on the forward side of obstructions to the water flow in the loch and in the river (small peninsulas, very small islets), some right on the flood line.

It is also of interest that the MacLeans of Coll also owned a large estate in Mull (MacDougall 1986), in the district adjacent to that in which I discovered **S. romanzoffiana** in 1990.

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FRANK HORSMAN, 7 Fox Wood Walk, LEEDS, W. Yorkshire LS8 3BP

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PUZZLE PLANTS AROUND THE WORLD

From time to time on our travels we are completely baffled by a plant which looks so distinctive that we are really puzzled when we can find no description that fits in the Floras. In 1986 in Western Australia we were mystified by a widespread annual with flower heads looking superficially like a silvery Thrift - but on bending close to photograph, the slightest breath sent the silvery 'florets' floating upwards with parachutes of hairs at the base (appropriately upside down for down under?). Back home friends at B.M. Botany and at Kew first suggested Dipsacaceae or Plumbaginaceae. Then the Australian Liaison officer at Kew established with microscope that it was definitely a Composite, and Peter Green, unable to resist the challenge of an unidentified plant, joined the enquiry and at last it was run down as **Ursinia anthemoides.** In this South African plant the silvery 'petals' of the 'florets' are achene appendages in fruiting heads! Neville Marchant has kindly given permission to reproduce the illustration of **Ursinia anthemoides** (fig. A, page 8) from the Flora of Perth, Part Two by N. Marchant et al., published by Western Australian Herbarium and Department of Agriculture, Western Australia (in 1987, after our visit).

Back home sorting books for my move I was hesitating about a small text book South African Flowering Plants (1903) by Rev. Professor G. Henslow M.A., F.L.S., F.G.S. etc. (priced 6d in pencil inside cover) when it opened at an illustration of our **Ursinia** achene - then called **Sphenogyne anthemoides!** (fig. B, page 8), thoughts of parting with that book were immediately cancelled! Returning to Australia two year's later the puzzle was in mind - but only to find that on this visit the plant was found with both fruiting heads and some flowers. If the rayed yellow Composite flowers had been showing on our first visit our puzzle would have been solved at the start!

On our visit to the Canadian Rockies in 1990 we were stopped in our tracks on a woodland trail to Nixen Lake, by an enchanting slender 8" stem with tiny flat shining white satin 'cushions' each with two neat central rows of black seeds. We were unable to find the plant Fin the Flora of the Pacific North-West (a large 730 page Excursion Flora by Hitchcock & Cronquist, University of Washington Press), and only after our return, Chris Brayshaw of the B.C. Provincial Museum, kindly sent the identification of **Mitella nuda** in fruit, with the explanatory diagrams (and permission for these to

be reproduced in BSBI News, see fig. C below). We had been fascinated by **Mitella** species on this holiday - tiny green flowers with filiformly dissected petals, and we had in vain counted stamens for the 10-stamened **M. nuda**, without realising that this species was already then in fruit.

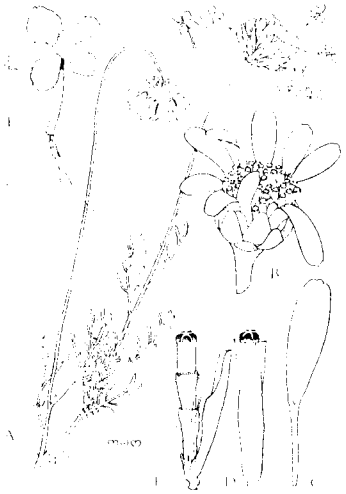

Fig. 263. *Ursinia anthemoides*. A, Flowering branch. B, Flower head. C, Ray floret. D and E, Disc florets. F, Achene.

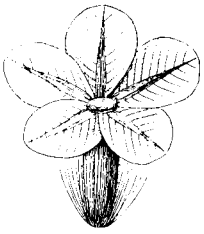

FIG. 68. — *Spheno'gyne anthemoi'des*. Achene with scaly pappus.

Fig. B, from South African Flowering Plants

Fig. A, reproduced by permission from Flora of Perth

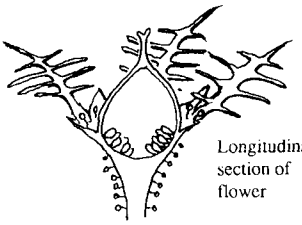

Fig. C. **Mitella nuda** L., del. T.C. Brayshaw © 1990

MARY BRIGGS, 9 Arun Prospect, PULBOROUGH, West Sussex RH20 1AL

WHITE FORMS OF PINK/MAUVE FLOWERS

Alderney seems to provide an unusually large number of white flowered forms of plants whose normal colours are generally in the range from pale pink to mauve, and I wonder if anyone can offer a logical explanation for this.

The island is about 3 miles x 1 mile, is rarely subjected to frost and snow, but is frequently swept by strong, salt-laden winds. It has a restricted number of soil types with virtually no clay, and no chalk. Our only alkaline soils are based on shell-enriched dunes. Highly acid soils are also rare and restricted to the few marshy areas.

A number of these white forms are present in most years, almost always growing with other specimens of normal colouration.

This year I have noted the following species with white flowers:

Raphanus maritimus - very common.
Geranium molle - frequent, very pale pink to white.
Erodium cicutarium subsp. **dunensis** - occasional.
Oxalis articulata - single well-grown specimen, growing out of the asphalt at a roadside beside a sand-dune area, a piece of the plant moved into my garden three years ago has continued to produce white flowers.
Lupinus arboreus - single specimen noted.
Medicago sativa - frequent, creamy-white.
Calluna vulgaris - single specimen noted.
Armeria maritima - occasional.
Primula vulgaris - occasional, almost white.
Anagallis arvensis - rare.
Centaurea erythraea - single specimen seen.
Borago officinalis - several plants in a cornfield.
Echium vulgare - two or three plants together amongst many normal specimens.
Cuscuta epithymum - a few plants noted. Dodder is frequent in the dune areas, and almost invariably grows flat on the ground here, usually associated with thyme. It is very rarely seen over gorse bushes.
Sherardia arvensis - very common.
Lonicera periclymenum - a patch, white with pinkish edges to the petals, noted on a cliff.
Cirsium vulgare - two large plants.
Centaurea nigra - single well grown plant.
(**Centaurea aspera** - seen in Jersey on a sand dune.)
Hyacinthoides sp. (?**hispanica**) - several seen, scattered locations, cliffs and dunes.

It may be that several of these plants commonly produce white forms, but I am not very familiar with them elsewhere, and any suggestions would be welcomed.

BRIAN BONNARD, The Twins, Le Petit Val, ALDERNEY, Channel Islands
(tel. 0481 823482)

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LEMNA MINUSCULA IN WILTSHIRE

I note that in Rich's Plant Crib that **Lemna minuscula** is reputed to be recently introduced and spreading widely. It seems to have made an appearance in Wiltshire as I have observed it forming a complete sheet - bank to bank - over the Kennet and Avon Canal at Devizes along with a few scattered **L. polyrhiza.** This is in contrast to last summer when **Azolla filiculoides** covered the entire surface, again with a few specimens of **L. polyrhiza.**

It is interesting to speculate on the causes of such radical changes of population in this niche - perhaps the hard frost late this spring or periodic weed spraying

removed the **Azolla** leaving the surface clear for a new species which is seemingly so successful in competing with native **Lemna.**

I have also found **L. minuscula** in small quantities in the River Wylye at Wylye, Stapleford and Wishford and Dr J. Oliver has reported it in the Avon at Salisbury.

BARBARA LAST, The Stables, BERWICK ST JAMES, Salisbury SP3 4TN

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MYOSOTIS DISCOLOR IN WET HABITATS

This year I have noticed **Myosotis discolor** on two occasions growing in a wet habitat. One was at Kingcombe in West Dorset (v.c. 9), in a stream draining a small mire. The other was in a drainage ditch in a rough meadow near Christchurch (v.c. 11). The water was only about a centimetre deep, but in wetter seasons it could be deeper. There can be little doubt about the identification; one specimen was confirmed by the County recorder. Have others observed **M. discolor** in similar situations?

ROBIN M. WALLS, 16 Leigham Vale Road, Southbourne, BOURNEMOUTH BH6 3LR

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LYME DISEASE IN THE NEW FOREST

The advice in Martine Archer's article (BSBI News 54: 15) must certainly be taken seriously. Those of us lucky enough to live in the New Forest know how common it is to be attacked by ticks. Although the proportion of bites leading to infection must be small, my neighbour, whose work as a Forest Keeper obliges him to spend the whole of his life out in the Forest, has actually suffered from the disease.

In removing the offending animals, it is vital first to make them relax, for otherwise they readily break leaving their mouth-parts deep in your skin. As dog-less non-smokers with no flea-spray, lighter-fuel or specialised chemicals (David Lang, BSBI News 55: 8), we have found that the best plan is to apply a drop of clear nail-varnish. If you leave this to harden, you will find that the solvent has relaxed the tick, which you can then peel off embedded as a fly in amber. They start very small, and your botanist's hand-lens may prove helpful. But what you really need most is a spouse or other close friend, for ticks have a truly remarkable talent for choosing to attach themselves to those parts of the body which one can neither see nor reach.

JOHN & IRENE OUNSTED, Apple Tree Cottage, Woodgreen, FORDINGBRIDGE, Hants. SP6 2BD

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ORCHID SITES AND TWO SUMMERS OF DROUGHT

It is to be hoped that populations of orchids which were severely affected by the past two years of summer drought will recover in time.

During 1990 I revisited a number of orchid sites in the southern counties, and observed a drastic decline in many species. Those orchids which flower early, such as **Orchis mascula** and **O. morio** seem not to have declined in numbers significantly, but it was apparent that the stature of most plants was reduced, especially in open grassland habitats. **Orchis mascula** growing in shady woodland fared rather better.

Some orchids of the chalk grassland appear to have been very badly affected. A hillside on the South Downs in Sussex, where in 1988 there were several thousand

flower-spikes of **Gymnadenia conopsea** produced only a few hundreds in 1989, and no more than seven plants flowered there in 1990.

On another hillside in Dorset, where thousands of plants of **Ophrys apifera** flowered in 1988, only about half a dozen could be found in flower in 1990. Many other species suffered in a similar way. **Herminium monorchis** was not to be found at all in two sites where it flourished in past years, including a well-known locality on Box Hill in Surrey. Many botanists will have visited the Oxfordshire site of **Orchis simia** and seen how the plants there were affected in 1990.

Bog orchids and marsh-orchids in the south appeared to me to have been less affected and in some sites plants were larger and more numerous this year than in 1988 or 1989, but none of the sites I visited had dried up completely in the drought, and it is possible that these plants were able to take advantage of the warm summers and mild winters whilst escaping the stress of drying out.

I also visited a site where **Orchis purpurea** was growing both in shady woodland and in an adjacent cleared strip beneath power lines. It was noticeable that those plants in the open area had lost all their flowers, leaving only a display of unfertilised ovaries still attached to the flowering-spike, whereas the plants protected from the scorching sun in the adjacent scrub and woodland were flowering normally. Perhaps we should be less hasty in removing scrub from such sites if we are to continue to have dry summers. In another Kent wood which was coppiced over a period of three months this spring, plants of **Orchis mascula** in the area which was coppiced last became completely shrivelled before they were able to flower, whilst those in the parts coppiced earlier flowered successfully. It seems that coppicing can be disastrous if carried out shortly before the orchids emerge, and that if all the coppicing had been completed earlier, the orchid plants would have had time to acclimatise to the drier conditions and more would have survived.

V.A. JOHNSTONE, 27F Nevern Square, LONDON SW5 9PD

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COCHLEARIA DANICA ON INLAND ROADSIDES - SOURCE OF SEED?

It was nice to see the distribution map for **Cochlearia danica** on roadsides in the last issue (BSBI News 55: 20). It brought back happy memories of my study of roadside maritime plants in the 1970s. I'm supposed to be working with birds these days, but still can't help but look at the kerbside as I drive along - a particularly dangerous habit which has only led to one accident so far. I always suspected **C. danica** would make the big time. It has all the right characteristics, an annual of disturbed saline soils. Its previous south eastern distribution did seem to indicate a climatic limit but I agree with Simon Leach that the mild winter or warm summers might be important - it will be interesting to see what the effect of a series of cold years might be - if we ever have them again that is.

What I do not agree with however, is the suggestion that the plants are being introduced in materials used for constructing roads. This is something that I went into. Engineers patiently explained to me that the quantities of materials used were so large that they invariably came from very local quarries.

Obviously, it could happen with roads near to the coast but is not going to be the explanation further inland. I still plump for cars. As well as sweeping seeds along in their slipstream they can also carry seed - I managed to get a healthy saltmarsh population growing outside my old house that way and found seed in the sediment of a car-wash next to the A1.

I suspect the reason the populations are so often in the central reservations is because of hard shoulders. These take the offside kerbs much further away from the traffic and the saltspray than the kerbs on the central reservations. I found offside kerbs were better for maritime plants than central reservations where there was no hard shoulder. Another possible explanation which might apply to **Cochlearia danica**, a

plant I associate with light soils, is that where there are no hard shoulders, the soils on the sides of roads receive a lot of compaction from vehicles pulling off the road, unlike the central reservation.

Here in the north-east, my casual observations indicate that most populations of maritime species have declined, something I put down to the mild winters and less salt being used. That old trooper **Puccinellia distans** is still flourishing though, it seems to be on every road I drive down these days.

NICK SCOTT, Druridge Bay Warden, Hauxley Nature Reserve, AMBLE, Northumberland

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ALBANIA : A NEW VENUE FOR THE BRITISH AND IRISH BOTANIST

In May 1989 I led a botanical tour to Albania. Despite surprisingly small numbers in view of the intrinsic interest of such a visit (one of the first to Albania by a party of British botanists since the 1930s), the excursion was both pleasurable and interesting. Alas, a second botanical visit in 1990 had to be cancelled through almost total lack of interest - although I have since taken a cultural tour, and good numbers of people other than botanists regularly visit. Since at least two botanical excursions to Albania are planned for 1991 [see below. Ed.], and even though I do have a vested interest, may I heartily recommend this charming, friendly and beautiful country to members. I realise that botanists, like everybody else, may have little time free for holidays and want to see as many plants as possible in a few days, and it is true that the itineraries, restricted by long distances over 'B-roads', rather few hotels and the conservative nature of an embryonic tourist industry, are unable to encompass the wonderful, remote mountain ranges of Albania, but nevertheless the green spring scenery with some good Balkan flowers and other natural history provides a memorable experience. There are fascinating historical sites, associated with everyone from Basil the Bulgar-slayer to Lord Byron and Edward Lear, the food, drink and folk music are excellent, and one catches a glimpse of a lost Near Eastern World. Despite the evident presence of a reactionary communist regime, the people are kindly and most welcoming to their British and Irish visitors; the guides were thrilled to find out how interested we were in their flowers. Why not give Albania a try!

JOHN AKEROYD, 24 The Street, Hindolveston, DEREHAM, Norfolk NR20 5BU.

[Details of one tour are on page 41; the other that I know of, is being led and organised by a non-member, so details cannot be published in News. Ed.]

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BIDENS (BUR-MARIGOLDS) IN GLAMORGAN

Three species of **Bidens** (Bur-marigolds) have been recorded in Wales, **Bidens cernua** L., **B. frondosa** L. and **B. tripartita** L. Each of them can be found in Glamorgan (v.c. 41) although none is particularly common there. They are all 'long day' annuals, flowering late in the season. September is a good time to look for them.

Bidens cernua (Nodding Bur-marigold) and **B. tripartita** (Trifid Bur-marigold) are both native in Britain and occur in marsh vegetation at the edge of canals, ponds, lakes and reservoirs, e.g. **B. tripartita** can be found on the fringes of Kenfig Pool (SS796812) and **B. cernua** grows on the edges of suitable dykes and ditches on Margam Moor (SS785845) and Baglan Moor (SS755909).

Bidens frondosa (Beggarticks) is an introduction in the British flora from America, and is widely naturalised in Western, Southern and Central Europe (Tutin et

al., 1976). It is locally frequent in some places around Swansea and Neath where it has been known for more than 40 years. There has been a population of **B. frondosa** on the banks of the Neath Canal (SS736944) near Giant's Grave in Briton Ferry for at least the last 20 years and a well established population on the Tennant canal (SS742974) near Neath Abbey also.

Anyone prone to a bit of plant 'twitching' could 'tick' all three species in Glamorgan in an afternoon and, more importantly, would have the chance to look at and compare them all at once. After doing this, I was aware of how confusion could occur when one is confronted with two of these species in the field. More significantly for me, I became aware of errors I had made in the past.

Bidens cernua is the most straight-forward with its relatively large, nodding heads and its simple leaves (never lobed) which are sessile and coarsely toothed (fig. 1a, p.14). Typical specimens should not be difficult to identify almost at a glance in the field.

One is more likely to confuse **B. tripartita** and **B. frondosa,** however, even though they are usually only superficially alike. The main reason for this is the variation in leaf shape exhibited by **B. tripartita** (fig. 1b, p.14). Unfortunately, the 'typical' 3-lobed ('trifid' or tripartite) leaves of this species, which give it its name, are not obvious on all specimens, a fact which is noted in Flora Europaea (Tutin et al., 1976). You are likely to find many plants with a significant proportion of unlobed or incompletely lobed leaves and, frequently, plants without any 3-lobed leaves. In contrast, most specimens of **B. frondosa** in Glamorgan, in my experience, have their leaves divided into three parts (fig. 1c, p.14). However, their distinctive feature is that they are pinnate with a large terminal leaflet usually well separated from the two smaller leaflets with short stalks; i.e. typical leaves are not lobed (fig. 1c, p.14). Morphologically, **B. frondosa** may appear to be more deserving of the name 'trifid'. However, I have also seen small specimens of **B. frondosa** without pinnate leaves resembling certain forms of **B. tripartita** (fig. 1d, p.14). Moreover, illustrations of **B. tripartita** and **B. frondosa** in field guides are often poor and only add to the confusion.

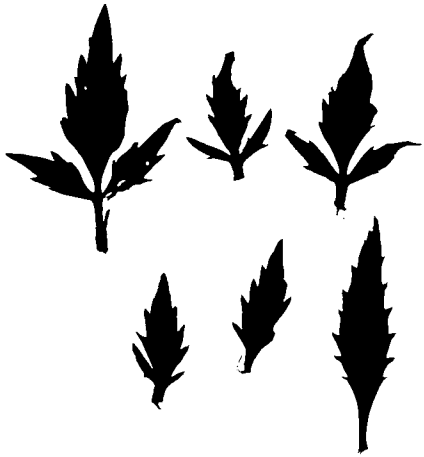
Fortunately, the achenes of these species exhibit reliable features (Clapham, Tutin & Moore, 1987) which will separate them easily and unequivocally in the field, with the help of a hand lens. All three species produce barbed achenes (hence the name Bur-marigold) which stick remarkably well to skin, garments, fur and feathers. They are probably dispersed most effectively by birds such as moorhen (**Gallinula chloropus**) and dabchick (**Tachybaptus ruficollis**).

The achenes of **Bidens cernua** are somewhat flattened and 4-angled with 4 (rarely 3) bristles of equal length, each with downwardly pointing barbs. Downwardly pointing barbs are also found on the angles of the achenes (fig. 2a, p.15). The achenes appear to be striped when young and ribbed when mature.

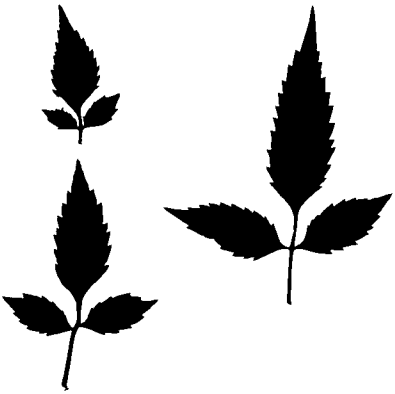
The achenes of **B. tripartita** are also angled but more compressed than those of **B. cernua.** Two of the angles are continued as long bristles with downwardly pointing barbs and usually at least one of the other angles is continued into a shorter bristle, similarly barbed. Specimens from two separate populations in Glamorgan that I have examined recently, had two long bristles and one short bristle per achene (fig. 2b, p.15). Plants in other populations may have achenes with two long and two short bristles but some plants may only produce achenes bearing two long bristles. Plants with achenes armed with just two long bristles might be confusing. However, the key feature which separates them from those of **B. frondosa,** is that the angles have downwardly pointing barbs. Being armed with so many barbs, the achenes of **B. tripartita** (and **B. cernua**) stick very readily to finger tips.

Achenes of **B. frondosa** are more compressed, bear two bristles with downwardly pointing barbs and are usually a little larger than those of **B. tripartita** (size is not a reliable character however). They are very dark in colour at maturity and covered with warty tubercles and upwardly pointing cilia. These cilia are also present on the angles which lack downwardly pointing barbs (fig. 2c, p.15). The presence of cilia and the absence of barbs on the angles of the achenes is probably the best distinguishing feature of **B. frondosa** and makes the achene less able to stick to finger tips.

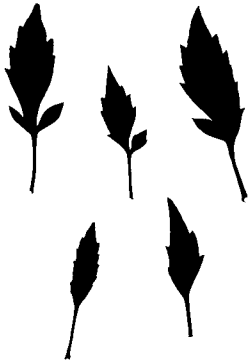
(a) Leaves of **B. cernua**



(b) Variation in leaf shape exhibited by **B. tripartita**



(c) Typical pinnate leaves of **B. frondosa**



(d) Non-pinnate leaves from small **B. frondosa**

Fig. 1, Silhouettes of leaves of **Bidens** spp.

There are now several records of **Bidens frondosa** from Glamorgan and Monmouth (v.c. 35) and there is little doubt that it is well established in South Wales and may be spreading (Ellis, 1983). The flowers are visited by bumblebees and hoverflies, seed set is usually good and fruit dispersal appears to be efficient. It seems to do well in 'native' marsh vegetation at the edges of canals and ponds in the company of species such as, **Stachys palustris, Scrophularia aquatica, Myosotis scorpioides, Lycopus europaeus, Scutellaria galericulata, Eupatorium cannabinum, Rumex hydrolapathum, Iris pseudacorus, Glyceria maxima, Filipendula ulmaria, Epilobium hirsutum, Lythrum salicaria, Lysimachia vulgaris, Mentha aquatica, Equisetum fluviatile, Juncus effusus** and **J. inflexus.** However, on Crymlyn Burrows (SS718933) it grows towards the back of a brackish marsh dominated by **Juncus maritimus** and **Phragmites australis** with **Hydrocotyle vulgaris, Mentha aquatica, Glaux maritima, Potentilla anserina, Eupatorium cannabinum, Lythrum salicaria, Samolus valerandi, Pulicaria dysenterica, Iris pseudacorus** and **Oenanthe lachenalii.** In my experience it is rarely found in ruderal communities in the Neath and Swansea area although CTM gives waste places as an additional habitat for the species in Britain. Clearly, **B. frondosa** has wide ecological amplitude.

It is possible that **Bidens frondosa** is under-recorded in Britain because of confusion with **B. tripartita** and because, like other Bur-marigolds, it is only prominent late in the growing season when recording is less active. Your local patch might be worth checking next autumn!

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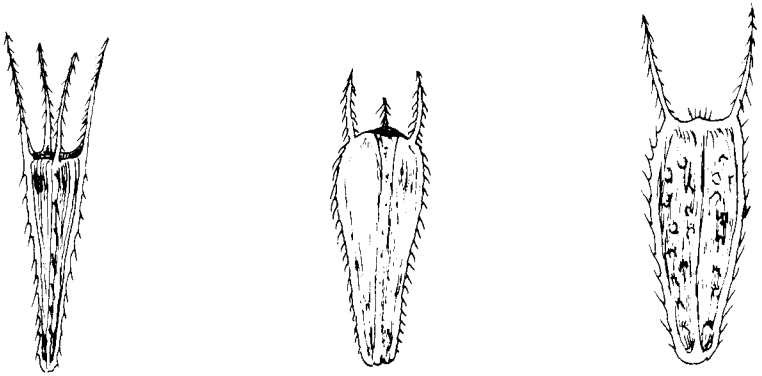
CHARLES HIPKIN, School of Biological Sciences, University College of Swansea, Singleton Park, SWANSEA SA2 8PP



(a) **B. cernua** (b) **B. tripartita** (c) **B. frondosa**

Fig. 2, Achenes of **Bidens** spp., del. Rosemary John, from originals by CH © 1990

GETTIN' ALL HAIRIATED

London's seedlin's o' Birch is PUBESCENT, each one.
It's a right rum ole 'ow-do-you-do.
On yer pavements an' walls, through yer roof, by the ton,
Grows in fahsands, straight up, aht the blue.

Like their parents? Cor blimey, them's SILVER, my son.
Nah, would I spin a porky to you?
Leaves all shinin' an' smooth as a baby's.....er....tum,
An' the text-books jist ain't gotta clue!

BRIAN WURZELL, 47 Rostrevor Avenue, Tottenham, LONDON N15 6LA

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THE FOGGITTS OF THIRSK

Hearing Bill Foggitt speaking on Radio 4, as the amateur weather forecaster from Thirsk, Dorothy Lousley wrote to him asking if he was related to Gertrude Foggitt - a leading light in the BSBI in the 1930s. Thinking Bill Foggitt's enthusiastic reply would be of interest to members, Dorothy asked his permission for the letter to be printed in BSBI News.

Incidentally it was Mrs Foggitt who was responsible for initiating, in 1932, an annual Conversazione in late autumn, the forerunner of our Exhibition Meetings (see D.E. Allen The Botanists).

[The letter from Bill Foggitt has been edited for publication. Ed.]

Dear Mrs Lousley,

Gertrude Bacon was my uncle, T.J. Foggitt's second wife, they were married in February 1929; my uncle was 70 and Gertrude 56. I vividly remember the time because February 1929 was the severest since 1895.

Gertrude claimed to be the first woman to fly in an air balloon and published a book about her experiences; she used to accompany her father, an Anglican Vicar, on these exploits.

My uncle, Thomas Jackson Foggitt, a chemist in Thirsk and later a magistrate, collected and preserved a specimen of every wild plant in the British Isles, and sent them to the South Kensington Museum, or rather Gertrude sent them after his death in 1934. Sadly they were destroyed when the museum was blitzed during the war, but I believe a duplicate set was sent to the Huddersfield Museum.

You may have heard of some of the botanists who used to stay with my uncle and aunt at Thirsk: Dr Druce - a rather cantankerous man I believe, I had the honour of meeting him once, I think it was in 1932; a Mr Stansfield of Southport; Lady Davy; Miss Vachell; a Mr Butcher of Cambridge and Gambia Parry - I would be most interested to know if you happened to meet them. Shortly after my uncle's death, Gertrude left Thirsk (she too was a magistrate) and spent her last years with her brother - a retired college lecturer, at Sketty near Swansea. She died suddenly on Christmas Day 1949, while watching TV, at the age of 75.

Quite often in the early 1930s (we had four successive very hot dry summers, 1932, 1933, 1934 and 1935 incidentally) I used to accompany my uncle and Gertrude on botanical outings - a Miss Kitty Rob, another very keen and able botanist, I think often came along as well. One very memorable outing with my uncle, in the summer of 1928 before Gertrude came on the scene, was to the sand dunes at Southport, where we found rarities such as "Red Helleborine Orchid (**Epipactis grandiflora**), Wintergreen (**Pyrola rotundifolia**), Yellow Centaury (**Chlora perfoliata**), Fleabane (**Erigeron acris**). As a schoolboy - aged 15 at that time - I gathered and mounted these specimens, and they are with me to this day.

The Foggitt's interest in weather forecasting all started with my great grandfather (another Thomas Jackson Foggitt) chemist and naturalist, in 1830 when he

commenced keeping weather records; on his death in 1885, my grandfather William, took over and continued until shortly before his death in 1917. Then my uncle T.J. and father took over, and when my father died in 1962, I took over and continue to this day. Grandfather William was also a keen botanist, chemist and magistrate; my father Benjamin was also a chemist and naturalist, but not a magistrate, it was time to "draw the line" somewhere!

BILL FOGGITT, South Villa, York Road, THIRSK, N. Yorks. YO7 3AA

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CAREX RIPARIA - AS FODDER IN SERBIA

Occasional notes on uses of **Carex** (see BSBI News **46**: 23-24)

Travelling through Serbia (Jugoslavia) in May, ox carts were in common use; we stopped to photograph one in a roadside field. Two cows were tethered to the cart while the farmer scythed; our interpreter mentioned that we would like a working cart, and the smiling farmer yoked his cows for our picture (see below). I noticed that his crop was a pure stand of **Carex**, which was det. by Arthur Chater on our return as **Carex riparia** Curtis (Greater Pond-sedge).

Through Sreten, the interpreter, I asked the farmer the use of his sedge crop. He told us that the mature sedge could not be fed to his cattle as it would then be poisonous to them, but the custom was to put the cattle onto the **Carex** strip to graze when the young leaves were c.20-30cm high. At this stage the sedge is good palatable fodder, we were told, and the cattle can be put to graze a second (or even third time) in some seasons - when the sedges have regrown to that height. Finally, the **Carex** is left to grow to maturity, and when the fruits have ripened the crop is scythed and left lying for a while to allow the fruits to drop - resulting in the **Carex riparia** monoculture which we saw that day.

Gathering **Carex riparia** in Serbia, photo M. Briggs © 1990

MARY BRIGGS, 9 Arun Prospect, PULBOROUGH, West Sussex RH20 1AL

MAPPING THE PRIMROSE

(reprinted from BSBI News 15: 29, 1977)

The Atlas of the British Flora deals with the flora of the British Isles. In the map of **Primula vulgaris** published in the work cited it is shown that the primrose rejoices in Ireland in certain areas, in

Ulster, the whole nine counties, in
Connemara, from the Maamturks to the sea, and in
South East Ireland, the territory of Evelyn M. Booth.

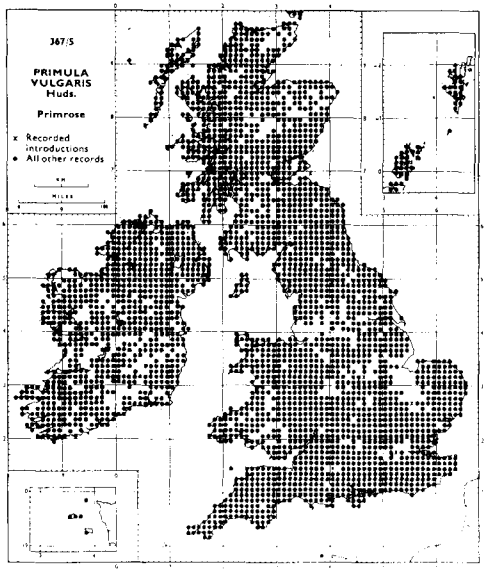
It also informs that Cavan is almost devoid of primroses and that large tracts of Laois, Offaly and South Tipperary are without a 10km record. Botanists however know that the primrose is found throughout the island.

After the publication of the Atlas, Irish botanists met and attempted to explain the strange distribution pattern. Several theories were advanced, one that field botanists worked the vegetation when the plant had gone over and had failed to notice the primrose in the late-leaf stage. Workers were encouraged to pay particular attention and to report sightings.

Later, indirectly, the matter resolved itself. An enquiry concerning the distribution of a subspecies of cocksfoot grass led to the finding of c. 200 "lost" cards of the primrose. Through human error, the cards of 1607 (**Primula vulgaris**) had been placed in the computer with 607 (**Dactylis glomerata**). The map resulting, deprived of many records, did not reflect the distribution. A decision was made to print the true map in the 1968 edition. It is the reason why an uncritical species was mapped in the Critical Supplement.

Alas, in the Atlas reprint of 1975, the original incorrect map is published - with the information as in 1962. [The incorrect map also appears in the 3rd edition (1982) and in the new paperback reprint (1990). The correct map is printed below. See also page 4. Ed.]

M. SCANNELL.



Map of **Primula vulgaris** reproduced from the 'Critical Supplement' © 1968

PEUCEDANUM OFFICINALE - VARIATION AND AFFINITY

Peucedanum officinale L. (Hog's Fennel), a splendid yellow-flowered umbellifer, is known from just two long-recorded British sites, at Faversham and Walton-on-the-Naze. A stately flower-stem arises to five feet or more through a mass of 4-6-ternate leaves, the linear lobes of which are 2-4mm wide (see drawing on front cover). Large quantities of good seed are often set, and quite readily give rise to plants which can grace a garden for upwards of five years. The species has a very wide geographical range in Europe, but localities within that range appear to be few and small.

In the Balkans there is a close relative, **Peucedanum longifolium** Waldst. & Kit., separable primarily by its leaf-lobes, which are stiffer and needle-like. I have seen this species twice, near Kotor in southern Jugoslavia and near Phteri in Peleponnesos.

Two points have arisen which it would be good to settle before Volume 2 of Flora Europaea is revised:

1. Herbarium specimens collected in Spain are usually labelled '**Peucedanum officinale** subsp. **stenocarpum**', but appear to me to be **P. longifolium.**
2. On my second visit to Phteri, in 1989, when overshading by trees had rendered the clump non-flowering, the needle-lobes of 1988 had embarrassingly given way to broader ones. Several explanations offer and I need to confirm one of them.

I would be most grateful for a specimen, including basal leaf, of any relevant plant that travellers might find in '91, from any European location.

MERVYN SOUTHAM, 72 Fareham Road, GOSPORT, Hants. PO13 0AG

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RON PAYNE IN WESTERN AUSTRALIA
sketched by Joy Lawrence

Can this be Yorkshire Fog Down-Under? del. J. Lawrence c 1990

(Ron tells us that he did not in fact see **Holcus lanatus** in Albany, but that he did collect 101 gatherings of grasses, and that it was the best grass-holiday that he has ever had. Mary Briggs.)

NOTES AND ARTICLES

CONKERS IN WARTIME

With reference to the note by John Ounsted 'Biology of the humble conker' (BSBI News 55: 25, Sept. 1990)), conkers, the seeds of the horse-chestnut (**Aesculus hippo-castanum**), were collected extensively for ammunition making during both the First and the Second World Wars. The late Dr Ronald Melville, of the Royal Botanic Gardens, Kew, was actively engaged during the Second World War not only in the large-scale collection of rose hips but also of conkers. He told me that the conkers were used in the manufacture of the explosive cordite, which is a mixture of nitrocellulose, nitroglycerine, petroleum jelly and acetone. There was a letter by E. Marshall entitled 'Conkers for Cordite' confirming this in Chemistry in Britain for June 1989.

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FURTHER COMMENTS ON CONKERS

Suddenly everybody is talking about conkers. A chance remark by John Edmondson on the dispersal of conkers (BSBI News 53: 6, 1989), followed by my own thoughts on the ecology of Epirotic conkers (BSBI News 54: 31, 1990), invoked responses both from Paul Whitehead (BSBI News 55: 28, 1990), who clarified the taxonomy and dietary habitats of the putative pachyderm dispersal agents, and John Ounsted (ibid., 25), who outlined the collection and use of conkers during World War I as a raw material in the production of acetone, a solvent employed in the manufacture of cordite. Obviously BSBI members are not the only folk interested in conkers, because A.O. Chater has kindly drawn my attention to two letters in The Independent of 18 October 1990, in reply to an earlier correspondent's enquiry as to just why had he collected these large, handsome and apparently useless vegetable items during World War II. Both letters drew attention to the appropriate passage in David Lloyd George's War Memoirs Volume II (1936), where he describes a shortage of acetone when he was Minister of Munitions.

The scientist who solved the problem was Professor Chaim Weizmann of Manchester University, later to be the first President of modern Israel, who isolated a bacterium that would convert starch to acetone. Maize was used initially as a substrate, but the restriction of imports by German submarine warfare necessitated a local source of starch - our friend the humble conker. Lloyd George (loc. cit.) records that in the autumn of 1917, horse-chestnuts were plentiful, and their collection was soon organized on a national basis. The second of The Independent correspondents, Dr Paul Lewis, then goes on to note a major consequence of Lloyd George's and the nation's gratitude to Weizmann, the Balfour Declaration, leading to the establishment of the State of Israel. Assuming this hypothesis to be a tinge hyperbolic, I turned to Lloyd George (op. cit. 1936, p.349), who states categorically: "That was the fount and origin of the famous declaration...". Certainly the conker has played its part in world history!

I leave you with three further thoughts on conkers. Firstly, Dr Daniel Kelly has written to me to suggest that "Passage through guts is lethal to nuts" - I maintain "no": class, please discuss. Secondly, on a recent visit to Gjirokaster in southern Albania, I was enthusing over the use there of **Aesculus hippocastanum** as a street tree, and our guide told me that Albanian children play 'conkers'. Did the British take this practice to Albania, like cricket to nearby Corfu, or is it indigenous? (At some stage in the past the game was apparently played with snail shells.) Thirdly, does Albania, that most self-sufficient of countries, still manufacture acetone from conkers? Plenty for discussion in the public bar (alas, Hindolveston has no pub)! [I'd move. Ed.]

P.S. Another Independent correspondent (23 October 1990) notes that the Russians use conkers in clothes cupboards to discourage moths. Watch this space...

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LONG-BURIED SEED

Following my note in BSBI News **52**, p. 26, the large bank of **Nicandra physalodes** reported then has not reappeared in this spot, although other plants of both this and **Datura stramonium** have been noted elsewhere this year. Subsequent to the moving of further quarry spoil for the housing scheme etc. **Reseda luteola** has been seen this year in considerable quantity at several associated locations.

In the drought last summer (1989), a Victorian water main, not used for many years was replaced, to allow water to be pumped from the reserve quarry, not needed since the 1960s, to our reservoir. The new pipe followed the line of the old one through dense bracken, and crossed an old railway track. In the autumn, a very large rosette, which I could not identify, formed in the centre of the pipe track about 1.5m from where it passed under the railway line. This became a single fine plant of **Hyoscyamus niger**, about 75cm high this year (not reported anywhere in Alderney for many years), and flowered well. It would seem probable that the origin of this plant was from seed dormant in the soil of the old Victorian pipe trench, long since covered in bracken.

BRIAN BONNARD, The Twins, Le Petit Val, ALDERNEY, Channel Islands

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QUERCUS ILEX, THE ISLE OF WIGHT AND GLOBAL WARMING

B. Shepherd's note about **Quercus ilex** on the Isle of Wight (BSBI News **55**: 9) set off two trains of thought for me.

First merely botanical - in Mallorca, woods of **Quercus ilex** support five species of orchid: **Epipactis microphylla, Cephalanthera damasonium, C. longifolia, Limodorum abortivum** and **Neottia nidus-avis** (others occasionally, but preferring habitats with more light). Of these five, only the **Cephalanthera** and **Neottia** are native in Britain. Can we hope that **Cephalanthera longifolia** will turn up on St Boniface Down too?

Second - can we afford to be 'stuffy' about introduced species? It is sad to see our native flora replaced by introductions, but in the face of global warming we may have to accept the gradual movement of flora northwards. We may be grateful for **Quercus ilex** and other Mediterranean species when the Isle of Wight flora has retreated to the Hebrides.

To quote from the editorial of The Ecologist **20**(5), for September 1990: "...should a forester in the South of England plant a native oak, if a Mediterranean holm oak is likely to be better suited to the climate when the tree is only 30 years old - only a fraction of the normal lifespan of the tree?".

It would be interesting to compare the list of recently arrived aliens from the South with those from the North in an area of southern Britain. The comparison might show nature doing her best against man-made odds as usual.

ELSPETH BECKETT, 3 Henley Street, OXFORD OX4 1ER

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THE JOHN DONY FIELD CENTRE, LUTON

This is the title of an article, written by Paul Hyman, that appeared in the Bedfordshire Magazine for Autumn 1990 (page 245). In it Paul writes:

> "...the John Dony Field Centre, named in honour of the eminent botanist and local historian, will cater for a wide range of groups interested in wildlife and the countryside. ...in the evening it will provide a venue for natural history and conservation societies. It is also hoped the centre will provide for conferences and seminars, with seating for up to about 70 people.
>
> Offering high quality surroundings, the Field Centre is equipped with a wealth of audio-visual equipment, a laboratory for practical/field work and a good wildlife reference library."

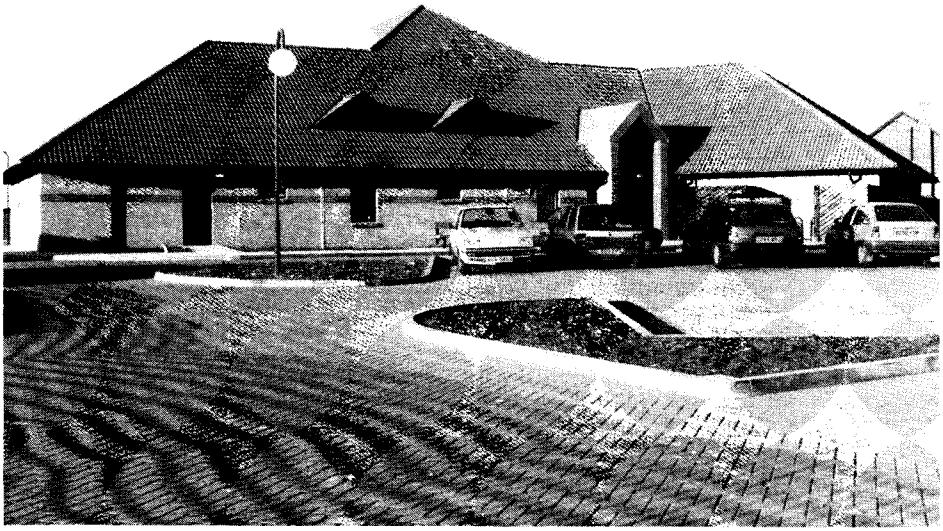
Further information about the Field Centre can be obtained from:

Dr Trevor Tween, Conservation Warden, The John Dony Field Centre, Hancock Drive, Bushmead, Luton LU2 7SF (tel. 0582-422818), or

Dr Paul Hyman, Keeper of Natural History, Luton Museum, Wardown Park, Luton LU2 7HA (tel. 0582-36941 ext. 236).

We send our best wishes to John and Chris, and look forward to seeing them both at the Field Centre at some BSBI sponsored meeting. [Meetings Secretary please note!]

My thanks to Paul Hyman for permission to quote from his article and for the photo of the centre reproduced below.



The John Dony Field Centre, photo Luton Museum © 1990

EDITOR

ARRHENATHERUM ELATIUS - AN OBSERVATION

With regard to the note on the distribution of the subspecies of **Arrhenatherum elatius** in the last issue (BSBI News **55**: 18), it may or may not be of significance that **A. elatius** subsp. **elatius** (tall oatgrass) used to be incorporated in herbage seed mixtures. This was mainly in 2/3 year leys or rotational systems, either for hay or to provide an 'early bite' and intended for use on lighter or well drained soils. Almost all of the seed was imported from France and it was no longer used after 1939/40. Improved varieties were introduced in the 1950s but were little used, as much simpler herbage mixtures were being adopted. **A. elatius** subsp. **bulbosum** (onion couch) was regarded as a weed of lighter soils which seems to be in great contrast to the semi-natural habitats described in the note.

BOB FLOOD, Taxonomist, Official Seed Testing Station, NIAB, Huntingdon Road, CAMBRIDGE CB3 0LE

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NEWS FROM THE NATURAL HISTORY MUSEUM

Readers who have heard conflicting accounts of recent changes at The Natural History Museum may be interested to learn of recent developments concerning the Museum's Flowering Plant Herbaria.

In the summer a Curatorial Section was established. This has Clive Jermy, formerly head of the Fern Section, as its leader, with Roy Vickery, formerly Curator of the General Herbarium, in charge of the day to day running of the Flowering Plant Herbaria. At present the new section is working out its priorities, and seeking ways in which it can improve its services to all those - from school children with unusual sycamore fruits to professional scientists - who use the collections or seek information.

The Flowering Plant Herbaria are open to visitors from 8.30am to 5.00pm, Mondays to Fridays, and arrangements can usually be made for visitors to use the herbaria on Saturdays providing two weeks advance notice is given. All visitors are asked to ensure that they sign the relevant visitors' book, and are encouraged to annotate any specimens which they identify. Any specimens which are identified, or which are found to be misplaced, should be left out for Museum staff to put away.

As part of their examination of the state of the collections, Clive and Roy would welcome any comments which visitors may have on the current state of the herbaria and how they might be improved or developed in the future. Please send any comments in writing to the address below.

In the spring of 1991, it is planned to hold a series of informal Saturday workshops on various aspects of the collections and different plant groups. If you would like to receive information on these workshops, or would like to suggest appropriate subjects for inclusion in the series, please send a s.a.e. On the days on which these workshops are held, the herbaria will be open for use by anyone wishing to do so.

Although it is usually possible to accommodate visitors who have not given advance notice of their visits, it is best for potential visitors to contact relevant members of staff before arriving at the Museum. Ideally this should be done in writing; failing this please telephone one of the following: Clive Jermy 071 938 9428; Roy Vickery 071 938 8897, or Mary Chorley 071 938 8814 (flowering plants); Alison Paul 071 938 9497 (ferns).

CLIVE JERMY & ROY VICKERY, Dept. of Botany, The Natural History Museum, Cromwell Road, LONDON SW7 5BD

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MULTI-LEAVED CLOVERS - AGAIN

We read with interest the remarkable observations of Daniel Murray in BSBI News 54: 21, April 1990.

Coincidentally, our interest in the subject began with our astonishing find of 13 four-leaved clovers in May 1990, in a 1.5 square foot patch of white clover (**Trifolium repens** L.), during our daily morning walk along favourite trails at the base of the Hudson River Palisades. The number had risen to 120 by the end of July 1990 and continues to rise. We also noticed 4 four-leaved clovers in an adjacent clover clump. (See silhouettes below).

We thought that Daniel's suggestion of a weedkiller influence might be at work but we were told that the entire parking lot area of the Marina, where the clover patch is located, was graded, resurfaced with macadam and reseeded in June 1989. According to the park employees, no weedkillers or pesticides were used in this area.

We have discovered that there are clover farms in the USA that specialize in producing four-leaved clovers. One of these covers 1.5 acres, with two large glasshouses and innumerable clover plants. A secret ingredient (biogenetically treated) is added to the feed to produce many four-leaved clovers on the plants.

About 10,000 leaves are harvested daily and each is enclosed in plastic and sold as 'Good Luck' charms. Plants produced on the farm are not for sale, only the leaves, and the secret ingredient is jealously guarded!

We are still extremely interested in this phenomenon and will continue collecting data next year. We look forward eagerly to more comments and observations.

Silhouettes of clover leaves collected by Edward and Helene Wenis

EDWARD & HELENE WENIS, 104 Hillcrest Avenue, LEONIA, NJ 07605, U.S.A.

NEWS FROM THE BOTANY LIBRARY, THE NATURAL HISTORY MUSEUM

The Botany Library of The Natural History Museum will be available to members of the general public wishing to consult botanical literature Monday to Friday between 10.00am and 4.30pm as from 2nd January 1991. An appointment system is being introduced from this time to enable staff to provide better service to visitors. Any intending visitors are therefore requested to telephone the Botany Library on 071 938 9421 at least 24 hours in advance of their visit, if at all possible, to make an appointment with library staff.

Similar arrangements will also apply in the other libraries of the Museum.

MALCOLM BEASLEY, Acting Botany Librarian, The Botany Library, The Natural History Museum, Cromwell Road, LONDON SW7 5BD

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ALIENS AND ADVENTIVES

SOURCES OF ALIEN SEED

While some exotic sources of 'aliens and adventives', such as wool shoddy, used to manure land, are well known, most of these unintentionally introduced plants probably originate in imported seed or seed-like materials.

Large quantities of seed for agricultural, horticultural, amenity or garden use are imported each year and often contain seed impurities. Seed-like material imported for human consumption, animal feedstuffs or for industrial use - soya, lentils, maize, rice, canary-grass ... - quite often contain high levels of impurities which once cleaned out can find their way into the countryside.

However more unusual methods of introduction do occur. An attempt by a Cambridge grower to 'recycle' the peat like material in which Egyptian potatoes are imported, for seed and potting compost, resulted in the appearance of an unrecognised crop of seedlings. We were able to identify these for him as **Portulaca oleracea** (purslane), a weedy plant sometimes used as a vegetable. The peat seems to have been the only possible source of the seeds.

An equally unintentional, but far less welcome, recent seed introduction came to light when a rattle, made from a gourd and purchased at a Cambridge fair, fell apart. Fortunately the attractive and brightly coloured red and black seeds which fell out were immediately brought to our attention.

The seeds, about the size of a small lentil were identified as **Abrus precatorius** (rosary pea). They are reputedly extremely poisonous, one can be fatal to an adult if chewed and swallowed. Many of the seeds in the rattle were damaged or broken which increases the danger of poisoning, the hard seed coat if intact may prevent the absorption of the poison in the digestive system. The discovery of these seeds resulted in considerable activity by trading standards officers to trace and remove from sale rattles of this type. Some were found as far away as Somerset.

BOB FLOOD, Taxonomist, Official Seed Testing Station, NIAB, Huntingdon Road, CAMBRIDGE CB3 0LE

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SALIX CORDATA IN SUTTON PARK, WARWICKSHIRE

A reference to this most unusual willow appears in BSBI News **23**: 12, 1979). The specimen in question grows in boggy, waterlogged ground in the Longmoor valley. It was identified from material collected in 1976 - the drought year - this being the

first time it proved possible to get near enough. At the BSBI field meeting in the park last year (1989) it again was approachable with caution. Also, an observant member of the party discovered a further small specimen a short distance upstream.

'A garden escape' is a predictable reaction in attempting to account for its presence in the park (which is a 'natural' area as opposed to a town park). It would be interesting to have readers comments on this point. I would also like to know:

1. where else **Salix cordata** is recorded in Britain
2. in which part of N. America it is native, and when it was first introduced into this country

HAROLD FOWKES, 2 Middleton Road, Streetly, SUTTON COLDFIELD, West Midlands B74 3EU

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ARABIS TURRITA, A GARDEN WEED IN WEST KENT

In 1990 a large plant of **Arabis turrita** L., Tower Cress (det. E.J. Clement) appeared in my garden in an area of established shrubs and perennials where there has been no disturbance for a long time; also no top dressing or manure or bird-seed have been used in the garden. I have seen **Arabis turrita** only once before, at Cambridge in 1966, and I did not collect any seeds or other material. When the estate here was first built in 1970 however, the gardens were made up from top soil brought in from outside, and interesting weeds such as **Lagurus ovatus** and **Echium plantagineum** have appeared in the past.

JOHN R. PALMER, 19 Water Mill Way, SOUTH DARENTH, Dartford, Kent DA4 9BB

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CONSERVATION NEWS

PLANTLIFE - THE PROGRESS SO FAR

I am pleased to be able to write to inform fellow BSBI members - many of whom are also Plantlife members - about the progress of the new plant conservation organisation over its first year.

As a result of the merger of CABS with Plantlife, we are now carrying on several projects instigated by CABS, including Nick Stewart's vital work on the Red Data Programme for lower plants. Nick is now a Plantlife employee. One of the greatest benefits of the CABS/Plantlife merger is that representatives of CABS' constituent societies now sit on the Plantlife Conservation Committee, ensuring that the concerns of all branches of botany can be addressed.

We have also started a series of other projects. These include the purchase of plant-rich meadowland and research into the possible impact of global warming on our flora.

Plantlife has formed a link with Hensby Biotech, producers of an alternative to peat called 'Novagrow'. This product, carrying the 'Plantlife-approved peat-saving product' logo (see illustration, page 27), should now be available in your local garden centre, so you can help save our threatened peatlands by buying it.

My own botanical research has centered on the ecology of rare plants, especially **Pulicaria vulgaris** and **Lactuca saligna**, so I am naturally pleased that we are setting up rescue projects for particularly threatened species. So far the plants we have helped include **Calamintha sylvatica** and **Damasonium alisma.**

We have not invested in a big publicity drive this year - we know that our members and fellow botanists want results first. Even so, we have achieved a fair amount of

coverage for the key issues, and we hope that as we become more established, communications both with our members and the public at large will be increasingly high-profile.

I am very pleased to inform BSBI members that Plantlife now has an office at The Natural History Museum; the welcome we have received there helps us to feel part of the history and tradition of botany in these islands. Our recently-appointed Director, Dr Jane Smart, is based there, and should you wish for further information on Plantlife and our projects - or if you would like to join us - please contact her at: PLANTLIFE, The Natural History Museum, South Kensington, LONDON SW7 5BD (tel. 071-938 9111.

TONY HARE, c/o PLANTLIFE, The Natural History Museum, South Kensington, LONDON SW7 5BD (tel. 071-938 9111.

[Dr Tony Hare chairs the board of Plantlife]

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HELP OUR HEATHS!

This is the very apt leader of the BTCV's recent press release, publicising their heathland campaign, which aims at removing invasive vegetation on sites in eastern and southern England, and re-establishing this valuable habitat.

It follows hard on the heels of RSPB's campaign, partly financed by BP and NCC, which has centred its activity on Dorset, where some of the best heaths still exist. The RSPB team are approaching landowners with a view to carrying out active management on their land.

NCC has been encouraging these schemes and has been exploring ways of seeking better protection for this threatened habitat through possible incentive schemes, and tighter European legislation.

Heathland is a fine example of a habitat that is particularly threatened on a European scale, a fact that is recognised by all European ecologists. There is a real sense of co-operation in working towards conserving the habitat, as it is recognised as such an urgent need.

Britain has lost about 75% of its lowland heath since 1830. However, there are some 60,000 hectares remaining, representing about 18% of the total European resource. But many areas are becoming scrubbed over due to a lack of suitable management, and especially the cessation of grazing.

Heathlands have a restricted but very characteristic flora. **Erica ciliaris, Gentiana pneumonanthe, Radiola linoides, Cicendia filiformis, Erica vagans,** are all species restricted to heaths, and many of these are becoming rarer.

Entomologically, heaths have a diverse fauna, with bees, wasps, dragonflies and

spiders being particularly important groups. And there are several birds of note - stone curlew, nightjar, Dartford Warbler.

Perhaps the best known of the animal groups found on heath are the reptiles. The smooth snake and sand lizard both rely entirely on the habitat, whilst the other four British reptiles are often encountered.

The BTCV appeal ends with a challenge to us all.

> 'By getting people involved in actively protecting their heathland heritage, we hope they will come to recognize the importance of these habitats. If people realize the wildlife value of heathlands, we hope this will lead to greater public pressure to prevent development'.

So, please, Help our Heaths before it's too late.

Donations to: Lowland Heaths Campaign, BTCV, 36 St Mary's Street, WALLINGFORD, Oxon OX10 0EU

Or better still - join a work party - 0491-39766 for further information.

LYNNE FARRELL, Chief Scientist Directorate, NCC, Northminster House, PETERBOROUGH PE1 1UA

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CONSERVATION COMMITTEE : REGIONAL REPRESENTATIVES

If any conservation matter arises in your area that warrants BSBI action, the following people are the ones to contact in the first instance.

ENGLAND

South West, v.cc. 1-8.
Liz McDonnell, Dungeon Cottage, Cocklake, near WEDMORE, Somerset BS28 4HB (0934-712649).

Southern England, v.cc. 9-12, 20-22, 24.
Robin Walls, 16 Leigham Vale Road, BOURNEMOUTH, Hants. BH6 3LR (tel. 0202-423001).

South East, v.cc. 13-17.
Joyce Pitt, 6 Goddington House, Court Road, ORPINGTON, Kent BT6 9AT (tel. 0689-20133).

East Anglia,v.cc. 18, 19, 25-28.
Simon Leach, 74 Silver Street, Fletton, PETERBOROUGH PE2 9BX.

West of England, v.cc. 23, 33, 34, 36-38.
Mark Kitchen, The Cottage, Bevington, BERKELEY GL13 9RB (tel. 0453-810958).

East Midlands, v.cc. 29-32, 53-55, 55b, 56.
Franklyn Perring, 24 Glapthorn Road, OUNDLE, Peterborough PE8 4JQ (tel. 0832-273388).

North West and West Midlands, v.cc. 39, 40, 57-61, 63, 64, 69, 69b, 70.
Ian Taylor, Melody Cottage, HAVERTHWAITE, Ulverston LA12 8AF.

North East, v.cc. 62, 65-68.
John Richards, Department of Botany, Newcastle University, NEWCASTLE-ON-TYNE NE1 7RU.

SCOTLAND, **v.cc. 72-112.**
Nick Stewart, c/o South London Botanical Institute, 323 Northwood Road, LONDON SE24 9AQ (tel. 071-674-8044).

WALES, v.cc. 35, 41-52.
Elsa Wood, The Nurtons, TINTERN, Gwent NP6 7NX (tel. 0291689-253).

NORTHERN IRELAND, v.cc. H33, H36-H40.
Stan Beesley, 12 Downview Park, CARRICKFERGUS, Co. Antrim BT38 8RY.

REPUBLIC OF IRELAND, v.cc. H1-H32, H34, H35.
Tom Curtis, 39 Ryecroft, Church Road, BRAY, Co. Wicklow.

ELSA WOOD, The Nurtons, TINTERN, Gwent NP6 7NX

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NOTICES (BSBI)

RECORDERS MEETING, LANCASTER
August 30th - September 1st 1991

Once again this meeting will discuss methods of collecting and recording data - including computer systems, problems in field recording, and a look at some difficult plant groups.

All v.c. Recorders will receive a programme and application form before the end of April. Other members interested in recording are welcome (to the limits of available space), and any wishing to receive a programme and application details in April, please send a 9" x 6" s.a.e (marked 'Rec. Meet.') to the address below.

DEREK WELLS, 14 Tithe Close, Hilton, HUNTINGDON PE18 9NR

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NOTICES (OTHERS)

SOUTH WESTERN NATURALISTS' UNION
ANNUAL STUDY TOUR
TIVERTON, DEVON
24th - 30th May, 1991

The attention of BSBI members is drawn to the above meeting. This is always an interesting, worthwhile and friendly occasion when amateurs and specialists mix amicably. There will be daytime field trips and evening lectures. For further details, a programme and registration form please write to the address below.

Mrs P. BEER, Hon Sec. S.W.N.U., Shorton Manor, SHORTON, Paignton, Devon TQ3 1RG

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BIOLOGY EVENTS AT OXFORD

The University of Oxford, Department for External Studies will be offering in 1991, a series of day-schools and weekly evening courses, designed for the intelligent lay person and assuming no previous knowledge of biology, on a wide range of topics. Two,

of particular interest to botanists, are 'Carnivorous Plants' (Saturday 16 February 1991) and 'Pollination' (Saturday 11 May 1991).

To find out more about these or any other of the day-schools or courses please contact the address below.

BIOLOGY SECRETARY, OUDES, 1 Wellington Square, OXFORD OX1 2JA
(tel. 0865-270391/270360).

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REQUESTS

A DICTIONARY OF BRITISH & IRISH PLANT-LORE

Work has recently started on the compilation of a Dictionary of British & Irish Plant-lore. This will cover all aspects of the folklore and traditional uses of plants. Although particular attention will be given to contemporary (i.e. current and remembered) beliefs and practices, previously published work will also be used as appropriate. All groups of plants will be included.

Therefore, I am appealing for any information on:

traditional beliefs concerning plants (for example, the belief that certain flowers are 'unlucky' if they are brought indoors)
plants and plant materials used in traditional customs or in religious ceremonies
traditional herbal remedies
tales, legends and proverbs involving plants
traditional times for the sowing and harvesting of crops, and traditional practices associated with the cultivation of plants
local names of plants
children's games which use plants
plant materials used foretelling the future
the use of plants at weddings, births and funerals
wild plants gathered for food
other traditional uses of plants, etc.

It is hoped to include information on the plant-lore of the various ethnic groups settled in the British Isles, and comparative material from overseas - particularly from Europe and the English-speaking world - would be appreciated.

Please send any information, no matter how widespread and well-known it may appear to be, to me at the address below.

ROY VICKERY, 12 Eastwood Street, LONDON SW16 6PX

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QUEEN VICTORIA'S WEDDING BOUQUET

As a child I lived in an old house ('Glendivis', now demolished) on Divis Mountain just outside Belfast, and on the terrace outside my nursery window there grew a fine myrtle bush (**Myrtus** sp.). Local tradition held that this bush grew from 'a sprig that was in Queen Victoria's wedding bouquet'. I have tried in vain to learn more, for such traditions usually have some foundation in fact, although myrtle seems an odd thing to have at a wedding, anyhow. Can any member assuage my curiosity and tell me:

a) if myrtle was included in Victoria's wedding bouquet?

b) how a sprig got to Northern Ireland?

I do not know who lived in the 'myrtle' house at the time of the royal wedding though no doubt the information could be obtained if required.

NORA McMILLAN, The Nook, Uplands Road, BROMBOROUGH, Merseyside L62 2BZ

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LISTERA CORDATA : INFORMATION WANTED

The Atlas reveals that many less-common species found on Britain's hills and moorlands have declined in extent. I am investigating the losses of one of these species, **Listera cordata** (L.) R. Br. (Lesser Twayblade). I would be very grateful if you would contact me if you can recall details of any sites which have or had this plant. I will send all respondents a short questionnaire (and a SAE) to fill in about the sites. I will keep the location of your site or sites confidential if you wish. If you take part, I will ensure that you see a summary of the results of the full survey.

CHRIS SYDES, Nature Conservancy Council, 12 Hope Terrace, EDINBURGH EH9 2AS

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OFFERS

WATSONIA SPARES

I have a good number of unwanted copies of Watsonia dating from Vol 7(1) 1969 onwards. Copies are available free of charge except for postage and members are invited to write to me with their desiderata.

CLIVE STACE, Dept. of Botany, University of Leicester, Adrian Building, University Road, LEICESTER LE1 7RH

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REPORTS OF FIELD MEETINGS - 1989/1990

Reports of Field Meetings are edited by, and should be sent to, Dr B.S. Rushton, Biology Department, The University of Ulster, COLERAINE, Co. Londonderry, N. Ireland BT52 1SA.

The map on page 32 shows the approximate locations of the field meetings reported below.

1989

WALES

GORS MAEN LLWYD, CLWYD (v.c. 50). 1st JULY [1]

16 people met on the edge of this North Wales Wildlife Trust reserve. This area of heather moorland and wetland extends round the north end of Llyn Brenig and covers nearly 280ha.

The morning was spent in the streamside flushes between the road and the lake. We refound the hybrid **Carex echinata** x **C. dioica** (**C.** x **gaudiniana**) which I.R. Bonner found in 1971. Both parents are common here. Other **Carex** species found were **C. flacca, C. nigra, C. pulicaris, C. hostiana, C. demissa, C. curta, C. ovalis,**

C. panicea and C. **rostrata.** Other plants of interest were **Listera cordata, Selaginella selaginoides, Pinguicula vulgaris, Eleocharis quinqueflora, Vaccinium oxycoccos** and **Viola lutea.** The stream contained **Eleogiton fluitans** and **Myriophyllum alterniflorum,** and the lake shore (heavily grazed) **Littorella uniflora** and **Veronica scutellata.**

In the afternoon we visited a steep wooded gorge where the woods of alder, hazel, ash and rowan are protected from grazing. In the woods were **Luzula sylvatica, Melica uniflora, Galium odoratum** and **Hypericum androsaemum.** In the wet valley floor we found **Equisetum sylvaticum, Menyanthes trifoliata, Trollius europaeus,** Achillea ptarmica

and **Senecio aquaticus.** This rich flora contrasted starkly with the land on the other side of the stream which was closely grazed by sheep.

When we ascended, at the edges of the gorge were extensive wet flushes with **Achillea ptarmica, Succisa pratensis, Narthecium ossifragum, Hydrocotyle vulgaris** and **Dactylorhiza maculata.**

We enjoyed a day of varied habitats and saw a large number of interesting species.

JEAN GREEN

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1990

ENGLAND

LANGSTROTHDALE AND UPPER WHARFEDALE, MID-W. YORKS. (v.c. 64).
23rd - 24th JUNE [2]

The purpose of the meeting was to examine at least some of the 2000ha. of land recently acquired by the National Trust, in order to notify the warden of any particularly rich sites which might merit special conservation measures. The National Trust land is in disjunct blocks in Langstrothdale and along the western side of Upper Wharfedale between Buckden and Kettlewell.

The group of 19 people first visited an upland meadow SSSI at an altitude of 370m at the head of Langstrothdale, where they enjoyed a splendid display of **Dactylorhiza maculata** subsp. **ericetorum** and **Trollius europaeus** mingled with **Cirsium helenioides** and **Geranium sylvaticum. Platanthera chlorantha** was in bud. There were a few spikes of **Coeloglossum viride,** nine species of **Carex** and the beautiful, large-flowered, glandular **Euphrasia rostkoviana** subsp. **montana.** However, the **Pseudorchis albida,** seen there ten years previously, was not rediscovered. In the limestone pavement nearby were ten species of fern, including **Asplenium viride,** plus **Galium boreale, Draba incana** and patches of **Viola tricolor.** A larger, blue-flowered pansy was considered by Dr Sledge (Sledge, W.A., 1981. The Naturalist 958: 126) to be **V. tricolor** var. **lepida** rather than **V. lutea,** which is always entirely yellow in this area.

After lunch, the party was divided into groups of four, to record within the National Trust areas in separate tetrads, so that the results could be used both by the National Trust and for the v.c. 64 mapping scheme.

One group found **Sedum villosum** on the muddy edges of flat rocks near the river. A rich meadow was discovered near Deepdale - an area comprising a low slope of limestone grassland at an average altitude of 340m, with a small marsh and stream below. In the marsh several spikes of **Dactylorhiza majalis** subsp. **purpurella** looked stunning amongst the **Caltha palustris,** which was still in flower. On the slope **Rhinanthus minor** was plentiful, **Primula farinosa** and **Pinguicula vulgaris** were over, **Gymnadenia conopsea** and **Cirsium helenioides** were in bud and **Trollius europaeus** and **Parnassia palustris** were showing only leaves. At the top of the slope 20 spikes of **Coeloglossum viride** were found along with **Gentianella campestris.**

On Sunday morning, after a quick visit to the Deepdale meadow, we walked through meadows colourful with clovers, yellow rattle, buttercups and daisies to Rais Wood. This is believed to be ancient woodland but was disappointingly lacking in species of interest, possibly due to overgrazing by sheep and rabbits. Apart from the common species of **Alchemilla,** the only plant of note was **Galium odoratum.**

By lunchtime the rain was so persistent and heavy that it was impossible to write on recording cards and the afternoon session was abandoned.

The following weekend an overflow group of nine followed a similar pattern, except that they recorded in the mornings and were rewarded with the 'goodies' in the afternoons.

The best area was at Kettlewell where one member rediscovered **Draba muralis** on the limestone scar where he had found it ten years previously, and also a good stand of impressively large **Allium scorodoprasum.**

An optimistic search along the river below Buckden failed to reveal **Eleocharis austriaca** north of its locus classicus, but we did find a convincing **Dactylorhiza fuchsii** x **D. maculata** subsp. **ericetorum.**

Once again we are indebted to Alister Clunas, the National Trust warden, for writing to all the tenant farmers to obtain consent to our visiting their land.

PHYL. P. ABBOTT

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MONK'S WOOD, HUNTINGDONSHIRE (v.c. 31). 14th JULY [3]

This was a Workshop Study Meeting on **Ulmus** under the leadership of C.D. Preston, K.G. Messenger and J. Armstrong. Twelve members and two guests attended.

During the morning session in the Conference Room at Monk's Wood Experimental Station (by kind permission of the Director) Guy Messenger led the first half with the help of a copious supply of field record sheets illustrated with specimens and photographs. His theme was an informal scheme of nomenclature designed to assist vice-county recorders and local flora writers in naming **Ulmus** populations consisting mainly of juvenile specimens and sucker hedges, and so in preparing distribution maps of a wider range of types of elm than has hitherto been attempted. A dichotomous key to the main clonal groups of British elms was provided for members to try out during the afternoon field trip, and not unexpectedly it proved to have weaknesses. A lively discussion developed to which many of those present contributed. Jayne Armstrong then took over with a presentation of the currently accepted conventional nomenclature of British elms and some of its anomalies and problems, and an outline account of the work being done at CGE on the systematic and detailed recording of individual clones for the permanent record. In a continuation of the discussion it appeared generally to be agreed that the two approaches were complementary. Suggestions were made for improvements to Guy Messenger's nomenclature, and he was urged to consider setting up a BSBI ULMUS GROUP for the dissemination of ideas and information through the medium of a news-letter.

In the afternoon excursion by car, a circuit of about 22km was covered, all in v.c. 31, and nine sites were visited, each with elm populations illustrating points made during the morning. Lunch was taken at a pub on the way to the first of the sites. The 'East Anglian' clones of **Ulmus minor** at Leighton Bromswold and at Abbot's Ripton, and the stand of U. **plotii** at Easton were those which impressed the members most, but several U. **glabra** hybrids were seen, and at least half the party stopped to see the well known specimen of **Populus nigra** s.s. at Wyton.

Thanks are due to Jane Croft for help with the administration at Monk's Wood and to Dr Quentin Cronk for valuable experience and expertise which helped to enliven the discussion.

K.G. MESSENGER

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BSBI BRAMBLE MEETING, KENT (v.cc. 15 and 16). 17th - 19th JULY [4]

Kent is almost an island. Surrounded on three sides by the sea, and on the fourth, by motorways - the more dangerous approach route. Disgorged from the bowels of the earth in a multilane queue near Dartford, I was relieved to escape for a short while and relax in the comparative peace of Trosley Country Park (the village is spelt Trottiscliffe!). From here, I took a few collectables for later study before making my way to meet the rest of the party in the public car park at Aylesford, where we arrived during the only heavy shower of the summer. The rain stopped and we walked up through the village to Eric Philp's garden where we received a rousing reception from a local team of campanologists just across the road.

Eric and his wife regaled us with coffee (or tea) and biscuits, for which we were very grateful, while we got together and examined our various finds, made earlier in the day. Mine consisted of **Rubus armipotens** and R. **cissburiensis** both of which proved to be plentiful over the next two days, plus one or two un-nameables. Mike Porter did rather better, with a nice specimen of R. **hylonomus.**

Having made a plan of campaign, we dispersed, to meet again next morning at Rusthall Common near Tunbridge Wells, one of 'the' classic sites in Kent for **Rubus.** On arrival, David Marshall was able to tell us how the place had changed in the twenty odd years since he lived there, from open heathland to almost mature woodland. Some good bramble areas still exist round the outside of the woodland, but only light starved waifs exist along the jungle path interior.

Nevertheless, eleven species were found including **Rubus insectifolius,** R. **rudis,** R. **phaeocarpus.** R. **subinermoides,** R. **leucostachys,** R. **britannicus** and R. **decussatus.** The last named was one of the southern specialities we were hoping to see, and the only one on the common not previously seen by the author, though other bramble bashers of more western distribution found several species calling for comment.

Tunbridge Wells Common was rather a repeat of Rusthall, with woody ways and insufficient light for good robust growth, but, the Himalayan Giant apart, we added **Rubus sciocharis,** R. **plicatus,** R. **largificus** and R. **crespignyanus** to our tally and/or collection. However, the author managed to throw away the panicle he had collected of the last named, so has to be content with two stem pieces!

Returning to Maidstone, we stopped for a time at Pembury Walks, where we found **Rubus flexuosus** and a nice quantity of R. **hylonomus** along the margin of a chestnut wood. Here, Jim Bevan identified **Hieracium lepidum** while we were walking along a bramble free area, whilst **Equisetum sylvaticum** and **Stachys officinalis** also attracted attention.

After our evening meal, we went to nearby Penenden Heath where **Rubus vestitus,** R. **leucostachys** and R. **bloxamii** were all noteworthy.

The next morning, the 19th, we made our various ways to Denstead Wood near Chartham Hatch, in the general region just to the west of Canterbury. This large wood is mainly of Chestnut coppice with brambles along some of the rides, but not much in areas where the shade is too dense. Nevertheless, 13 species were found, of which, seven had not been seen the day before. These were the widespread **Rubus rufescens,** R. **gratus** and R. **pyramidalis,** the much more western R. **adscitus,** the local R. **diversus,** the distinctly uncommon R. **nitidiformis,** and the decidedly rare R. **erythrops** of which the author does not appear to have a piece in his Kentish collection!

Thornden Wood, north of Canterbury, was our next stopping place, and, during the journey from Denstead, we enjoyed a superb view of Canterbury Cathedral, seemingly only a stones throw away as we went over a hilltop. Thornden only had eight species that we could find, but included **Rubus cardiophyllus** and R. **macrophyllus,** both widespread species, and also the very local R. **canterburiensis.** This seemed an appropriate time for the author to set out for Norfolk, with the ever dwindling party heading for one last stop at Kings Wood, Sutton Valence, back to the south of Maidstone again. Those who went were rewarded with two more species in R. **murrayi** and R. **praetextus,** the latter being one of the local 'specialities'.

There was still a nucleus of members unwilling to go home until more of the local secrets had been revealed, and, on the 20th a party slipped over the border into v.c. 14, East Sussex, where, in Benhall Mill Lane, eight species included second sites for **Rubus decussatus** and R. **largificus,** the hitherto elusive R. **patuliformis** and a plant declared to be 'false **eriostachys**'! Finally, in woodland in the area of Eridge and Frant, R. **sprengelii** appeared for the first time, as did the local R. **hartmanii.** In all, 34 named species were seen over nearly three days of extremely hot weather.

The entomological highlight of the visit was the large numbers of Holly Blue butterflies passing up and down the hedgerows and rides wherever we went.

Our thanks are due to Eric Philp for organising the visit for us, and to Alan Newton for his inimitable leadership.

A. BULL

IRELAND

LIMERICK (v.c. H8) AND **MID-CORK** (v.c. H4). 30th JUNE - 1st JULY [5]

Four of us, including a welcome visitor from London, Mary Claire Sheehan, and James O'Malley from Killarney met at Goulburn Bridge (G.R. 11/16.26) east of the town of Abbeyfeale, Co. Limerick on the north-west rim of the Mullaghareirk Mountains (highest point, 427m). The range, of Millstone Grit and largely of upland pasture and forestry drained by small rivers, is not mentioned by Praeger in The Botanist in Ireland (1934). R.A. Phillips, in the early part of the century, worked some areas about towns on the periphery of the range. Alan Newton passed this way in 1984 and recorded **Rubus adenanthoides.**

The purpose of the meeting was to work an area where little systematic plant recording had been done.

The first stop was made at a bridge over the River Allaghaun (G.R. 11/18.24) where **Euphorbia hyberna** in fruit was found on banks and roadsides, **Senecio x ostenfeldii** (**S. aquaticus** x **S. jacobaea** was common in rushy pastures, **Potentilla erecta** subsp. **strictissima** was noted in upland areas and there were large stands of **Athyrium filix-femina** (with both green and purple-red rachis) on roadsides. Severe thunder and lightning caused us to depart before our reconnaissance was complete.

After lunch a stop was made at Deane's Bridge (G.R. 11/17.15) in an unimproved species-rich meadow on the west side of the River Feale and therefore we were briefly in North Kerry. En route to our second stop we observed abundant stands of **Euphorbia** hyberna on the banks and meadows of the Feale. At Blueford Bog, east of Newmarket, Co. Cork, we noted the extent of **Carex curta** (discovered late in 1989 by one of us) in **Sphagnum** hummocks with **Potentilla palustris.** We saw no sign of **Carex limosa** recorded by Allin in 1883 at 'Bluefort'.

On the following day when we were joined by Dr Tom Harrington, Thomond College, and Gobnaith Harrington a surprising number of plants were found on the large limestone rocks in the River Maigue at Bruree (G.R. 11/54.30), in south Limerick, from **Asplenium ceterach** and **Saxifraga tridactylites** to **Rorippa palustris** and **R. sylvestris.** The sides and floors of shallow pools on slabs of limestone were stained bright red by the alga **Haematococcus.** The river was fast flowing and the only aquatic species was **Elodea canadensis** in the old mill race. **Heracleum mantegazzianum** is well established around the mill and there was one patch of **Brassica nigra,** an uncommon plant in Co. Limerick.

The second site visited was west of Bruree in the Castletown area (G.R. 11/44.29) where we saw unusually tall trees of **Alnus glutinosa, Crataegus monogyna** and **Salix caprea** in a wood at the edge of the estate. The adjacent marsh is now being drained; **Catabrosa aquatica** rimmed some springs - the sources of the tributary of the River Maigue. Although no new or startling plants were found we explored new area and enjoyed the exchange of ideas with members one does not often meet.

SYLVIA REYNOLDS & MAURA SCANNELL

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MOUNT BRANDON RANGE, N. KERRY (v.c. H2). 4th - 6th AUGUST [6]

Nine members attended this meeting to explore the lesser-known areas of this mountain range famed for its rich arctic-alpine flora. The first day, Saturday, was spent exploring the large coomb under Brandon Mountain. The ascent was made from the eastern side from the hamlet of Faha, following the well-trodden pilgrim track, and ascending into the coomb via the waterfall above Lough Nalacken. Here, the characteristic flora of Mount Brandon was seen on the cliffs west of the waterfall and included **Oxyria digyna, Deschampsia cespitosa** subsp. **alpina, Saxifraga rosacea, Alchemilla alpina, Cochlearia officinalis** subsp. **alpina** and a wealth of **Saxifraga spathularis, S. hirsuta** and **S. stellaris.** Despite a layer of mist obscuring the

summit it was decided to attempt to reach it and most of the party made the ascent into the clouds to the ridge leading to the summit cairn. On the way **Geum rivale** was noted and **Cystopteris fragilis** proved to be frequent. However, other species of fern were less obvious and it was clear that the very dry weather had affected them badly as many clumps appeared as dried-up clumps of fronds. It was difficult to examine the cliffs below the summit ridge with ease as the mist made it difficult to be sure of one's position. We were rewarded at the summit (953m) with the re-finding of **Poa alpina**, in its most southerly site in Britain and Ireland. The grass was found in two separate places on the summit thus confirming a record last made in 1911. **Sagina subulata** was also found near the summit. On the return downwards from the ridge **Asplenium viride** and **Polystichum lonchitis** were noted.

On Saturday 5th August, the area surrounding Brandon Peak and Gearhane at the southern end of the range were examined. The party split into three groups to allow a better coverage of this difficult-to-work area. The first examined the area around Lough Avoonane and Lough Cruttia, the second the cliffs to the west of the lakes whilst the third group scaled the heights of Brandon Peak via the arrete above Lough Cruttia. **Trichomanes speciosum** was seen again at the site discovered originally in 1988. The ascent to Brandon Peak via some tortuous block scree was difficult but exhilarating but the cliffs under the peak were quite dry and poor in mountain plants. The commonest species noted were **Sedum rosea** and **Festuca vivipara. Armeria maritima** is a feature of these cliffs. However, north of the summit, at 760m, on some small outcrops, **Salix herbacea** proved to be quite frequent. **Carex bigelowii** was very common on the ridge and cliff-edges. The ridge leading to Gearhane is covered by a springy turf dominated by **Agrostis canina** and **Juncus squarrosus** and was a walker's dream - the descent from this peak was a nightmare on the back of the knees!

All three groups managed to rendezvous at the base of the mountain to compare notes. A feature reported by those who kept to the lower slopes was of the common occurrence of the three species of **Pinguicula** including masses of **P. grandiflora** in the valley bogs. There was a consensus that the flora was much poorer than other parts of Brandon due to the very dry nature of the cliffs in this area. However, an important blank had been filled in our knowledge of this region. The subsequent sustenance provided by O'Connor's pub in Cloghane was very welcome!

On the final day, five hardy - or foolhardy! - masochists left from the Conor Pass for a tramp across the bogs to examine the flora of the cliffs at Coumanare, east of Slieveanea. The flora proved to be quite sparse, due to the dryness of the cliffs, but **Sedum rosea** was in some quantity and the most western of the lakes held **Sparganium angustifolium.** The rarer filmy fern, **Hymenophyllum wilsonii** was located by one of the party and on the return **Sibthorpia europaea** was seen at the small stream flowing into the lake. Like the Brandon Peak area the flora was clearly poor due to the absence of wet cliffs but once again an important blank had been filled. The party broke up at lunchtime and a highly successful and enjoyable social meeting came to a close. Next year's mountain trip is already planned for Slieve League in Donegal!

T.F.G. CURTIS

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SCOTLAND

CHATELHERAULT, LANARKSHIRE (v.c. 77). 19th MAY [7]

A joint meeting with the Glasgow Natural History Society attracted an attendance of twelve. We were fortunate in that one of the group was the Park Ranger, although he insisted that he was attending as a BSBI member!

The party set off across the sloping ground, in front of the recently restored building, where the flora on the sandy soil included **Erophila verna, Trifolium arvense** and docks (**Rumex** spp.) at the vegetative stage but considered to be hybrids.

We then proceeded northwards to an area where ponds had recently been dug out. Although there had been no planting, some were already colonized by **Alisma plantago-aquatica, Carex aquatilis, Sparganium erectum** and **Typha latifolia.**

Lunch was taken in the courtyard, at the rear of the Georgian building, round which the various exhibits of previous working practices in the area are housed.

Thereafter the party botanized along the right bank of the steep and heavily wooded Avon Gorge. Of special note were **Adoxa moschatellina, Chrysosplenium alternifolium, Equisetum telmateia, Lathraea squamaria, Neottia nidus-avis, Saxifraga granulata, Scirpus sylvaticus, Stellaria nemorum** and **Tolmiea menziesii.**

Just after crossing one of the bridges and before returning along the top of the left side of the gorge a detour was made to see **Festuca altissima** in its classical habitat of damp rocks in a wooded valley. Botanizing finished near the north end of the gorge at a **Lathraea squamaria** site.

A return visit by the leader was made on 12th July to identify the docks. Most were in fact **Rumex longifolius** but a number were **R. longifolius** x **R. obtusifolius** (conf. DHK).

P. MACPHERSON

****

LOCHS OF NORTH ARGYLL (v.c. 98). 30th JUNE - 1st JULY [8]

This meeting was arranged to look at the aquatic vegetation of several botanically little known Argyll lochs. On both days the party assembled at the Forestry Commission Lorne District Office and included forester Bill MacDonald who has been much concerned with conservation in the local forest.

On the Saturday, 21 attended and divided into three groups. The party who visited the shallow north end of Loch Nell (G.R. 17/903.280) found it rather disappointing. This is a rather large and mostly deep water loch from which Oban extracts a large part of its water needs. **Potamogeton alpinus** and **P. perfoliatus** were the only pondweeds of interest seen, though **P. berchtoldii, P. crispus** and **P. praelongus** are all known to occur. **Alisma plantago-aquatica** and **Callitriche hermaphroditica,** rare plants locally, were seen as was **Ranunculus aquatilis,** apparently new to v.c. 98.

Time was found to make a short visit to Loch Duntanachan in Glen Lonan (G.R. 17/958.282) which produced **Potamogeton pusillus,** the first modern and only reliable record for the vice-county.

As expected the Loch Tromlee (G.R. 27/043.252) group had a rewarding day. This loch is shallow and influenced by drainage from adjacent limestone. There is an extensive mire area on the west side. 15 **Carex** species were seen, including **C. limosa, C. serotina** and **C. vesicaria,** and eight species of **Potamogeton** including **P. alpinus, P. gramineus, P. lucens, P.** x **nitens, P. perfoliatus** and **P.** x **zizii. Utricularia intermedia** agg. was found along with a single flower later identified as **U. ochroleuca. Carum verticillatum** was plentiful in one area but the outstanding discovery was a small area of **Calamagrostis purpurea.**

The third group visited three lochs. At Loch Seil (G.R. 17/805.205), also a water supply, four members hired a boat and saw **Ranunculus aquatilis, Potamogeton berchtoldii, P. perfoliatus, P.** x **zizii** and a fringing bed of **Typha angustifolia,** devoid of any spadices, screened from the shore by **Phragmites australis** and for that reason previously overlooked. The nearby Dush Loch (G.R. 17/801.207) had **Carex diandra** and **Ranunculus trichophyllus.**

The party then crossed the 'Atlantic Bridge' to Seil Island where Ballachuan Loch (G.R. 17/762.153) was visited. A small part of this loch lies in a Scottish Wildlife Trust reserve. The water here is obviously brackish as **Ruppia maritima** is abundant and **Schoenoplectus lacustris** subsp. **tabernaemontani** and **Scirpus maritimus** also occur. Alan Siverside made a diversion to follow up a hunch and look for **Euphrasia heslop-harrisonii** in the tidal creek at Ardfad (G.R. 17/769.190) and this he duly found - a southern extension of its known range.

All participants assembled in the evening joined by Mrs Slack to enjoy an excellent previously arranged meal at the Soroba House Hotel in Oban.

On Sunday, 20 visited the Black Lochs (G.R. 17/925.319) an SSSI and noted for its rich dragonfly populations and medicinal leeches. However on this cool, windy and rather wet day few, if any, dragonflies were seen. Arrival at these lochs was rather late in the morning and again the party split into three groups.

There are extensive beds of **Cladium mariscus** and **Carex elata** is plentiful in this its only Argyllshire locality. **Typha angustifolia** also occurs but as at Loch Seil no inflorescences seem to be produced. **Potamogeton gramineus** and **P. perfoliatus** were the only pondweeds of interest seen but others are known to occur. On a better day a boat would have been used to reach more open water beyond the fringing vegetation. Those who had not been to these lochs were clearly impressed by the rich fen habitats and beautiful setting.

Finally, my thanks to all who attended, to the owners of all the sites for willingly giving permission to go on their land and to the Forestry Commission for the use of a room and their car park and assisting with transport.

B.H. THOMPSON

****

LOCH AN DAIMH AND STUCHD AN LOCHAIN, MID PERTH (v.c. 88). 21st JULY [9]

26 enthusiastic members and friends assembled at the dam of the enlarged Loch an Daimh off Glen Lyon on a superb warm and sunny day. The meeting was jointly organised by the BSBI and the Botanical Section of the Perthshire Society of Natural Science, and its objective was to record on a quadrant basis for the new Flora of Perthshire along a route south of the Loch and then ascending Stuchd an Lochain, a less well known hill in the Breadalbane range.

Near the dam were sheets of **Saxifraga aizoides** and some **Gentianella campestris** in full flower. Flushes nearby held a range of **Carex** spp., including **C. pauciflora, C. hostiana, C. lepidocarpa** and their hybrid.

We soon left the lochside and ascended Creag an Fleadain by a steepish gully. Although barely 650m in altitude we saw several arctic alpines here, including **Bartsia alpina.** We briefly looked at Lochan nan Cat and then spread out over the steep crags below the mountain summit: these proved to be rich and held more **Bartsia alpina, Dryas octopetala, Salix arbuscula** and **S. reticulata, Carex atrata** and **C. vaginata** and other species characteristic of mica schist rock. In total 222 species were recorded.

At the conclusion 29 of us stood on the summit at 960m, with excellent visibility to beyond Ben Nevis. I guess our ages spanned 60 years. We thank the Lochs, Cashlie and Invermearan estates for giving permission to visit.

R.E. THOMAS

****

INSH MARSHES, EASTERNESS (v.c. 96). 22nd JULY [10]

And still they came - in total 23 adults and two children attended this meet. Setting out on foot, we visited first an area of birch woodland (**Betula pubescens** subsp. **carpatica**), with pool systems in the clearings, and here some of the plants studied were **Utricularia intermedia. Eleocharis multicaulis** and **E. quinqueflora, Carex pauciflora** and **Deschampsia setacea** - none showy, one must admit. Further on, we skirted an area of bog where **Carex chordorrhiza** and **C. limosa** were scrutinised before circling back over dry grassy moorland, with **Helianthemum nummularium** and **Gentianella campestris,** to the RSPB Car Park and lunch.

In the afternoon we set off in convoy, stopping first near Drumguish for a sight of some typical pinewood flora, **Pyrola media, Listera cordata** and **Goodyera repens** all showing, before continuing to Insh Church at the east end of Loch Insh. As we squelched round the loch shore, good stands of **Carex aquatilis,** locally common but rare elsewhere, were duly admired; **C. vesicaria** was there too. In a backwater, a flowering specimen of **Subularia aquatica** was tracked down - it had been seen thereabouts in a previous year. While tacking erratically through tussocks of **Molinia caerulea** to return to the road, David Wood came across a few plants of **Carum verticillatum,** a good find, for which no modern record is known in Easterness. On again to our last stop, north of the Spey near Balavil. That poisonous umbellifer. **Cicuta virosa,** was in bloom there, while in a small lochan the yellow flowers of **Nuphar pumila** tempted the photographers among us to some perilous positions.

The area was new to many of the party and our thanks are due especially to David Wood, who shared so freely with us his intimate knowledge of it, acquired over several summers work there for the RSPB Thanks, too, to Zul Bhatia, the RSPB Warden, for his help and permission to roam.

MARGARET BARRON

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HIGHLAND FIELD STUDIES

Brian Brookes has again put together an interesting and varied programme of courses for 1991. Some are specifically botanical and several others, though more general, have a high botanical content. All will be run as small, friendly groups in a relaxed, informal and enjoyable atmosphere.

Specially recommended to BSBI members are the courses on Mountain Flowers (July 6-13) & Wildflowers of Tayside (July 20-27), both courses based at Dunkeld, Perthshire.

The programme also includes:

Mosses & Liverworts	Dunkeld, Perthshire	April 26-29
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Autumn in Tayside	Dunkeld, Perthshire	October 12-19

The full programme and details of any particular courses are available from the address below. All enquiries are welcomed (sae appreciated).

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BSBI MEMBERS LEADING HOLIDAYS OVERSEAS

The following overseas tours have been arranged for 1991. All the leaders are members of the BSBI. Any member interested in joining one of these excursions is asked to contact the tour operator.

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VOYAGES JULES VERNE, 21 Dorset Square, LONDON NW1 6QG (tel. 071-723-6556)

LEADER	COUNTRY	DATE
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ADULT EDUCATION STUDY TOURS, 49 The Mall, FAVERSHAM, Kent ME13 8JN (tel. 0795-539744).

LEADER	COUNTRY	DATE
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	Wengen	14-28 June
	Dolomites	4-15 July
	Seychelles	25 September-11 October
Tony & Sylvia Kemp	Gargano	20 April-2 May
	Northern Cypress	9-21 March
	French Pyrenees	24 June-8 July
Peter Jepson	Canaries	5-15 May
Michael Mullin	Peloponnese	8-19 April

EDITOR

FIELD STUDIES COUNCIL COURSES

The 1991 brochure of courses at the nine residential Centres of the Field Studies Council is now available. Courses of special interest to botanists are on sheets headed 'Flowers and Other Plants' and 'Natural History, Ecology and Conservation'.

These or the complete brochure are free to all who would like copies but a first-class stamp towards the cost of postage would be appreciated. For your copies write to: Field Studies Council, Central Services, Preston Montford, Montford Bridge, SHREWSBURY SY4 1HW.

CATHERINE BROOM-LYNNE, Promotion & Publicity, Field Studies Council, Flatford Mill Field Centre, East Bergholt, COLCHESTER CO7 6UL

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STOP PRESS

THE BRITISH PTERIDOLOGICAL SOCIETY 1891-1991

The Society was founded in 1891 in Kendal, Westmorland (now Cumbria), to harness the enthusiasm for growing ferns which existed in late Victorian society. Since then, its members have produced an annual programme of activities and publications and, more recently, have maintained contact with members of similar societies in other countries around the world. Many libraries and institutions subscribe to the Society's regular publications.

The BPS now has a worldwide membership which includes botanists, gardeners and nurserymen, both professional and amateur. Its members produce publications which provide information for specialists and articles of popular interest about ferns for the general reader. In addition, they organise national and regional field meetings in Britain, talks and discussions, garden visits, plant and spore exchange schemes and the sale of collectors' books on ferns as well as society souvenirs. Through these activities, the members work together to record the geographical distribution of pteridophytes in Britain and throughout the world, and frequently advise growers on their cultivation. Many members pursue long term scientific studies on the conservation, genetics and propogation of various species and hybrids, whilst many others continue the Victorian tradition by avidly growing ferns in their homes and gardens. The Society supports amateur botanists undertaking research on pteridophytes through the Greenfield Fund which was initiated for educational purposes by a donation from the estate of Percy Greenfield. The BPS Centenary Fund has also been established to provide future funding for the Society and its members' work on ferns. A video about British Ferns, sponsored by Schering Agriculture, has also recently been produced and copies are available for hire.

To celebrate the Centenary in 1991, a number of special events and publications are being planned to raise public awareness of the existence of the Society's work.

Further details are available from the BPS MEMBERSHIP SECRETARY, Alison Paul, c/o Dept. of Botany, The Natural History Museum, Cromwell Road, LONDON SW7 5BD.

BARRY A. THOMAS, President of the British Pteridological Society, Dept. of Botany, National Museum of Wales, CARDIFF CF1 3NP

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Contents (continued from inside back cover)

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