

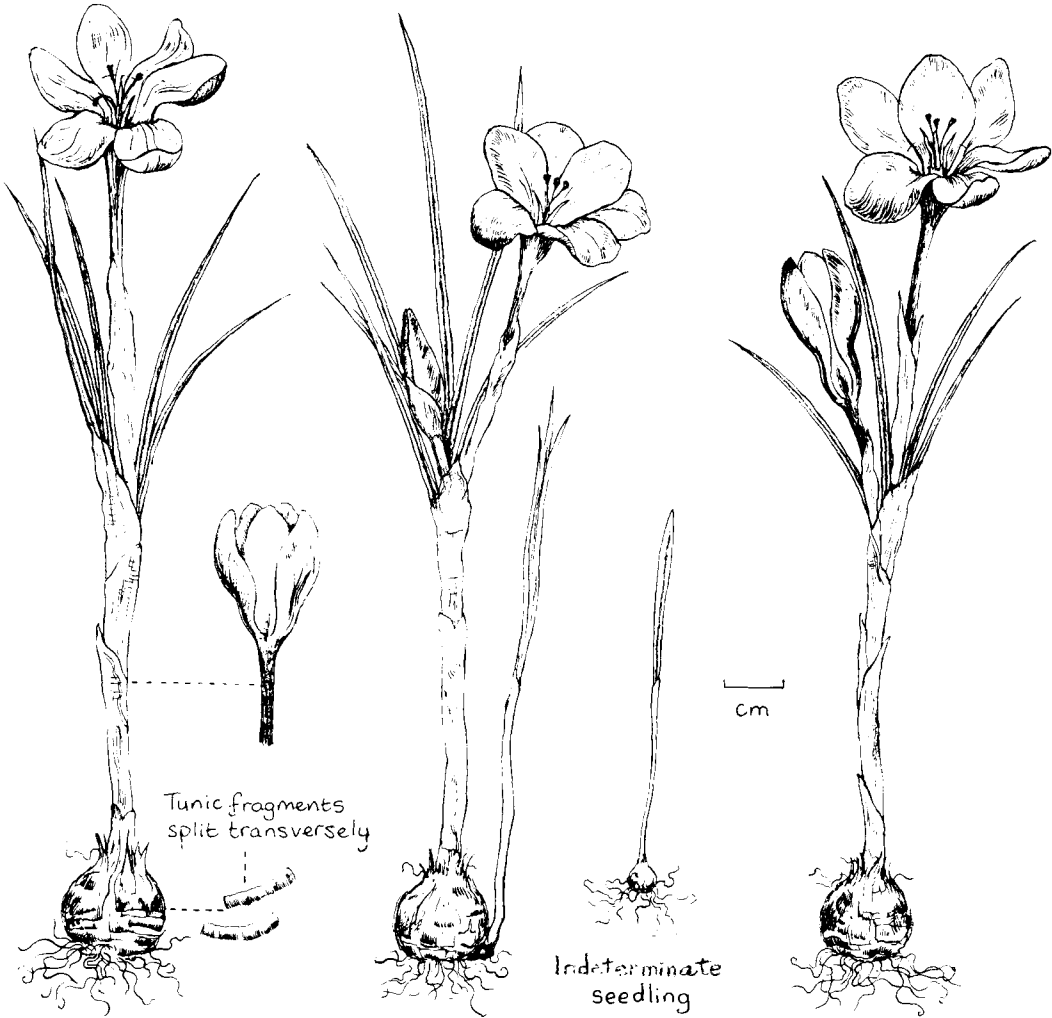
B.S.B.I. NEWS

April 1992

Edited by R. Gwynn Ellis

No. 60

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



C. CHRYSANTHUS
Bright yellow

HYBRID
Dull yellow-blue

C. BIFLORUS
Pale lilac

ADMINISTRATION

HON. GENERAL SECRETARY (General Enquiries) Mrs Mary Briggs, M.B.E.,
9 Arun Prospect, PULBOROUGH, West Sussex RH20 1AL
Tel. 0798-873234

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68 Outwoods Road, LOUGHBOROUGH, Leics. LE11 3LY
Tel. 0509-215598

(Please quote membership number on correspondence concerning membership or subscriptions -
your membership number is on the address label of your mailings).

HON. FIELD SECRETARY (Enquiries on Field Meetings). Mrs Elinor Wiltshire
62 Carroll House, Craven Terrace, LONDON W2 3PR

CONTRIBUTIONS INTENDED FOR

BSBI NEWS 61

should reach the Editor before

1st JULY 1992

DIARY

N.B. These dates are supplementary to those in the 1992 Calendar.

1992

- APRIL 24 Closing date for booking for Botanical Excursion to Bulgaria (see page 69).
- MAY 1 Revised closing date for booking for NMW/BSBI/ RHS Conference: *The Common Ground of Wild and Cultivated Plants* (see enclosed leaflet).
- JULY 1 Deadline for contributions for *BSBI News*.
4-5 Course on Mediterranean Plants (see page 69).
19 Correct date for Crymlyn Fen Field Meeting (see page 46).
- AUGUST 1 Revised date for Stonewort Meeting, Wickham Fen (see page 46).
- OCTOBER 24 Plants & Medicine one-day meeting (see enclosed leaflet).

ON REACHING 60

Because *BSBI News* was started during my Presidency, Mrs Mary Briggs thought I would like to welcome its No 60, 20 years on. What was said in the introduction to No 1 in January 1972 is pertinent and still stands. But it did not have an easy birth. Some of the Editors of *Watsonia* needed careful personal persuasion that it would not detract from their journal nor harm the reputation of the Society. Ken Beckett wrote later of its "hesitant beginnings" and "the not inconsiderable amount of quiet opposition to the whole project by some of the more professional and elder members", and indeed this attitude did not help the pioneer editors of the Newsletter. Ted Lousley insisted that it should not be indexed. Nevertheless indexed it has been, three times, in 1977, 1982 and 1988, the last 100 pages long. Richard Fitter in 1986 produced his own index to the excellent line drawings.

BSBI News began with 20 pages and now has 60. I was fortunate in managing to get as first Editor the botanist at Wisley, John Elsley, but he was whisked away to America the next year, where he still is. It was a good day for the Society when Ken Beckett took on the editing, one of the finest plantsman in the country. He started the invaluable set of drawings on the cover (might they not be collected for a separate booklet?) After nine issues, when he had increased its size to 30 pages, the many other calls on his expertise forced him to retire. Edgar Wiggins stepped in for nine years until failing eyesight made it impossible for him to continue. The issues down to the present are the work of Gwynn Ellis, of the Botany Department at the National Museum of Wales, who soon upped the pages to 60. And all this massive editing is honorary work, as it is for all our officers.

I doubt not that this, now very much appreciated, Newsletter has been the means of increasing our membership among those to whom *Watsonia* was, is, daunting. Nowadays most similar Societies have their Newsletter/Bulletin or whatever, even the august Linnean Society. But I think that the BSBI were in the vanguard. Perhaps David Allen might write a history of them.

DAVID McCLINTOCK, Bracken Hill, Platt, SEVENOAKS, Kent TN15 8JH

EDITORIAL

Thanks to the Hon Treasurer for allowing this 60th 'Diamond Jubilee' issue to be the largest yet with 72 pages, this has cleared most (but not all) of the backlog of papers.

Sincere Condolences to Mark and Clare Kitchen on the sad loss of their baby son Simon.

Congratulations to Clive Stace on the publication of his long-awaited *New Flora of the British Isles*, a magnificent work and well worth the wait. To paraphrase part of a review of Tolkein's *Lord of the Rings* 'British botanists are divided into two groups, those who have bought the *New Flora*, and those who are going to buy it'. (Pity about the index though.)

Latin and English names. As from the next issue of *BSBI News*, all Latin and English names of plants will follow Clive Stace's *New Flora*. Following several requests (see page 25) I will also be giving both names when first mentioned in papers except for long species lists. It would be a great help if all authors could remember this and **give both names** when writing their contributions.

R.F. May (1913-1991). I am sure many members will be saddened to hear of the death of R.F. May, author of *A List of the Flowering Plants and Ferns of Carmarthenshire* (1969). Following his retirement, Mr and Mrs May spent many years living in Spain before returning to Britain. His collections of Welsh and Spanish plants were donated to the National Museum of Wales several years ago.

Another botanical pub. My thanks to Keith Hyatt for the following observation:

'In *BSBI News* 58 our Editor flatly denied any connection with 'The Gwyn Arms' at Glyntawe in v.c. 42. What will he say about 'Gwynne's Arms' in Merthyr Tydfil, in his own v.c. and considerably nearer to Cardiff? The spelling is nearer to his own also. Perhaps he was over the eight when he commissioned the signwriter.'

Where do people get the idea that I inhabit pubs I wonder?

Thanks also to Brian Byrne of Shipley for the following advert from the *Weekend Guardian* for December 14/15 1991, which may amuse some readers.

'WE LOVE YEW

A unique environmental friendly gift suitable for all occasions. Rich in mythology and one of the world's oldest living organisms, the Yew (*Tax Us Baccata* [sic]) known as the "Sacred Tree" improving the quality of the air we breath, used on the treatment of cancer, the Yew is a remarkable tree. The planting of a new tree will be enjoyed for generations. We believe deforestation is the main cause of the depleted ozone layer.

A "Yew" wood will conserve and enhance our environment, create a new habitat for wildlife. Your tree will be planted

In fairness to the advertiser, part of the profits were to go to Cancer research.

EDITOR

HON. GENERAL SECRETARY'S NOTES

Congratulations to Mrs Nora F. MacMillan, a BSBI member, who was awarded an MBE in the New Year's Honours List for her services to museums and natural history. It follows a year in which she was also awarded an Honorary MSc by Liverpool University. Mrs MacMillan (now over 80) still goes into the Liverpool Museum regularly. She has wide interests in natural history and has recently contributed notes to *BSBI News*, but her main interest continues in conchology.

With deep regret we report the death of Arthur Sledge of Leeds - a BSBI member since 1924. An obituary will be published in *Watsonia* 19(2) (August).

Is there a member who would like to be Secretary to the new Executive Committee, to take the minutes of that Committee and to assist the Hon. General Secretary with Committee, Council and the administration of the Society. We are looking for a member with the time and the interest, and who could be in London - The Natural History Museum, Department of Botany - one day of most weeks. Expenses paid. If interested please contact the Hon. General Secretary.

1992 Year Book

Thank you to those who have written to let me know of errors or omissions, including:

Dr E.C. Nelson, on the Editorial Panel on page 8 whose initials were there transposed; and on page 6 Dr Nelson was inadvertently omitted from the list of members of the Publications Committee.

Also Peter Hall, an Honorary Member, whose entry should read Mr P.C. Hall, F.L.S. The Committee for Ireland on page 7 should read for 1991 - 1992:

IRELAND

J.C.L. Phillips (*Chairman*), Dr R.S. Forbes (*Hon. Secretary*), P.J. Grant, Dr D.W. Nash, Dr B.S. Rushton, Miss M.J.P. Scannell, Dr M. Sheehy-Skeffington, Mrs S. Reynolds, P. Corbett (*Observer* D.O.E. (N.I.)).

Representative on BSBI Council: Mrs S. Reynolds.

and under REGIONAL FIELD SECRETARIES

IRELAND: Dr D.W. Nash, 35 Nutley Park, Dublin 4, Republic of Ireland.

Through lack of co-ordination in timing of the information sent and the *Year Book* print dates, we inadvertently published a mixture of the committees for two years and I apologise for all the above omissions and errors. See also changes to Irish v.c. recorders on pages 5-6.

An addition under USEFUL ADDRESSES on page 10, is:

FRIENDS OF THE HARRIS GARDEN
(the Botanic Garden of the School of Plant Sciences, University of Reading)

Contact: Dr S.L. Jury, School of Plant Sciences, Plant Science Laboratories, University of Reading,
Whiteknights, READING, Berkshire RG6 2AS

MARY BRIGGS, Hon. General Secretary

RECORDERS AND RECORDING

May we remind members that to consult Referees for identifications and Recorders for localities is a privilege of individual membership, not available to members of institutions which are BSBI members (except through their nominated representative), nor to commercial consultants - without charge.

Unless stated otherwise the offer by Referees to identify plants is for specimens **from the British Isles**; the specimens must as far as possible comply with the requirements for each group as published in the List. The offer does not in general apply to slides, except where these are specifically mentioned (as e.g. Orchids). Members hoping for the identification of a slide, or any specimen from outside the British Isles, **should write first to the Referee**, with a s.a.e., to ask if the Referee is willing to accept these for identification.

Occasionally members forget that Referees are busy people and that the unexpected arrival in the post of a very large package of specimens, or a box (or boxes) of slides, is unlikely to elicit a prompt response - or maybe indeed any response. Referees frequently have less spare time for their botany than their correspondents!

Many hundreds of specimens are speedily confirmed or identified for members each year, and we take this opportunity to thank warmly all the Referees, and the v.c. Recorders, who voluntarily give many hours of time to members requests.

Please do not forget s.a.e. for replies.

Supplement no. 1 to List of Recorders in 1992 Year Book

Change of Address

17 Surrey Mrs J.E. Smith, 22 Station Road, Claygate, Esher, Surrey KT10 9DH

Correction of Address

89 E.Perth Dr R.A.H. Smith, Holburn, Pitcairngreen, Perth PH1 3LU

Apologies to Mr J. Evans, joint Recorder for v.c. 86 Stirlings, for calling him John in *BSBI News* 58 - his name is Jerry (Jeremy).

The Irish v.c. Recorders published in 1992 *Year Book*, pages 27 & 27, suffered the same fate as the Committee for Ireland (see page 4). The current list is now published below in full, with apologies, thanks to those retiring for their past help, and with a welcome to all new Recorders:

IRELAND

- | | |
|------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| H01 S. Kerry | Mrs E.C. Mhic Daeid, Avondale, Moynalty, Kells, Co. Meath, Ireland |
| H02 N. Kerry | Dr P.S. Wyse Jackson, Botanic Gardens Conservation Secretariat,
I.U.N.C. Conservation Secretariat, Descanso House, 199 Kew Road,
Richmond, Surrey TW9 3BW and Mr M.B. Wyse Jackson, 26 Upper
Mount Pleasant Avenue, Ranelagh, Dublin 6, Ireland |
| H03 W. Cork &
H04 Mid Cork &
H05 E. Cork | Miss M.J.P. Scannell, 43 Raglan Rd, Ballsbridge, Dublin 4, Ireland, and
Mr T. O'Mahony, 6 Glenthorn Way, Dublin Hill, Cork City, Ireland |

H06	Co. Waterford	Dr I.K. Ferguson, The Herbarium, Royal Botanic Gardens, Kew, Richmond, Surrey TW9 3AE
H07	S. Tipperary	Miss R. FitzGerald, 606 River Forest, Leixlip, Co. Kildare, Ireland and Miss E. Ni Lamhna, 6 Ashdale Gardens, Terenure, Dublin 6, Ireland
H08	Co. Limerick	Mrs S. Reynolds, 115 Weirview Drive, Stillorgan, Co. Dublin, Ireland
H09	Co. Clare	Miss C. Brady, 66 Templeville Drive, Templeogue, Dublin 6, Ireland
H10	N. Tipperary	Dr D.W. Nash, 35 Nutley Park, Donnybrook, Dublin 4, Ireland
H11	Co. Kilkenny	Mr R.N. Goodwillie, Lavistown Study Centre, Lavistown, Co. Kilkenny, Ireland
H12	Co. Wexford	Lady Ro. FitzGerald, Beggar's Roost, Lilstock, nr Bridgewater, Somerset TA5 1SU and Dr J.R. Akeroyd, Foxglove Cottage, 24 The Street, Hindolveston, Dereham, Norfolk NR20 5BU
H13	Co. Carlow	Miss E.M. Nic Lughadha, The Herbarium, Royal Botanic Gardens, Kew, Richmond, Surrey TW9 3AE and Mr N. Tirard, Coolnabrune, Borris, Co. Kilkenny, Ireland
H14	Laois	Dr P.J. Foss, 5 Royal Marine Terrace, Bray, Co. Wicklow, Ireland
H15	S.E. Galway	Dr M.S. Sheehy-Skeffington, Dept. of Botany, University College, Galway, Ireland
H16	W. Galway	Mr C. Breen, 101 Bettyglen, Raheny, Dublin 5, Ireland.
H17	N.E. Galway	Dr C.M. Roden, Red Bank Fisheries, New Quay, Ballyvaughan, Co. Clare, Ireland
H18	Offaly	Dr J.G.D. Lamb, Woodfield, Clara, Offaly, Ireland
H19	Co. Kildare	Mr D.A. Doogue, 12 Glasilawn Road, Dublin 11, Ireland
H20	Co. Wicklow	Dr T.G.F. Curtis, St Michael's, Meath Road, Bray, Co. Wicklow, Ireland
H21	Co. Dublin	Dr D.W. Nash., 35 Nutley Park, Donnybrook, Dublin 4, Ireland
H22	Meath	Miss M.P. Norton, Tinode, Manor Kilbride, Blessington, Co. Wicklow, Ireland
H23	Westmeath	Mr C. Breen, 101 Bettyglen, Raheny, Dublin 5, Ireland
H24	Co. Longford	Mr S. Howard, Carra, Granard, Co. Longford, Ireland
H25	Co. Roscommon	Mr J.J. Earley, The Walk, Roscommon, Co. Roscommon, Ireland
H26	E. Mayo &	Mr G. Sharkey, 2 Spencer Street, Castlebar, Co. Mayo, Ireland
H27	W. Mayo	
H28	Co. Sligo	Dr J.A.N. Parnell, School of Botany, Trinity College, Dublin 2, Ireland
H29	Co. Leitrim	Dr D.L. Kelly, School of Botany, Trinity College, Dublin 2, Ireland
H30	Co. Cavan	Mr P. Reilly, 26 Nephin Road, Dublin 7, Ireland
H31	Co. Louth &	Mr D.M. Synnott, National Botanic Gardens, Glasnevin, Dublin 9, Ireland
H32	Co. Monaghan	
H33	Fermanagh	Dr R.S. Forbes, Dept. of Extra-Mural Studies, Queen's University, Belfast, N. Ireland BT7 1NN and Mr R.H. Northridge, 9 Coole Drive, Enniskillen, Co. Fermanagh, Ireland
H34	E. Donegal	Miss P. Hodson, 60 Forest Avenue, Kingswood Hts, Dublin 24, Ireland
H35	W. Donegal	Dr T.G.F. Curtis, St Michael's, Meath Road, Bray, Co. Wicklow, Ireland
H36	Tyrone	Miss D.S. Lambert The Lookout, 49 Main Street, Castlerock, Co. Derry, N. Ireland BT51 4RA
H37	Co. Armagh	Dr J.S. Faulkner, Drumherriff Lodge, Orchard Road, Lough Gall, Co. Armagh BT61 8JD
H38	Co. Down	Mr P. Hackney, The Gobbins, 146 Gobbins Road, Islandmagee, Co. Antrim, N. Ireland BT40 3TX
H39	Co. Antrim	Mr S. Beesley, 12 Downview Park, Greenisland, Carrickfergus, Co. Antrim, N. Ireland BT38 8RY
H40	Co. Londonderry	Miss D.S. Lambert, The Lookout, 49 Main Street, Castlerock, Co. Derry, N. Ireland BT51 4RA

Supplement No. 1 to Panel of Referees and Specialists in 1992 Year Book

ROSACEAE

Sorbus: Correction of postcode

Mr P.J.M. Nethercott BS9 1PU

Cotoneaster: Jeanette Fryer sends an additional note on her specimen requirements:

Non-flowering growing shoots (c.6" long) are very useful - for the shape of the young leaves

MARY BRIGGS, Hon General Secretary

WHITE FLOWER FORMS IN THE GARDEN

It does not necessarily follow that because white-flowered forms of familiar British plants are found in the garden, they should also occur in the British countryside. Another possibility is that widespread species have white-flowered races elsewhere in their range.

This is true for at least two cases quoted in *BSBI News* 58: 12. The white form of marsh marigold, *Caltha palustris* 'alba' of commerce is in fact correctly *C. palustris* L. var. *himalensis* (D. Don) Mukerjee. It is the only form found in the west Himalaya, notably Kashmir, and for some reason has proved to be a more popular garden plant than the yellow flowered European race. In the garden it remains quite distinct from the latter, being rather smaller and less rampantly vigorous, and with subtle differences in leaf shape and colour throughout the year. It seems that the two do not hybridize, and it may well be that the Himalayan plant deserves a rank of higher level than variety.

White forms of primrose, *Primula vulgaris* are more complex. The very attractive and delicate little plant from the north side of Puig Major in Mallorca is always white flowered and is correctly *P. vulgaris* Huds. subsp. *balearica* (Willk.) Smith & Forrest. It has leaves which are green beneath. Elsewhere in the west of its range, the primrose is usually yellow, but from northern Greece eastwards there are two races which are often white, although they can also be various shades of red, pink and yellow. *P. vulgaris* subsp. *sibthorpii* (Hoffm.) Smith & Forrest has narrow petioles and leaves which are grey-green beneath, while subsp. *heterochroma* (Stapf) Smith & Forrest has leaves with abundant white hairs beneath and broad petioles.

White-flowered plants in the trade are sometimes offered as *P. 'ingwerseniana'* (Heslop-Harrison), named after the Danish originator of the Sussex dynasty of Sussex nurserymen, Walter, who probably introduced it from northern Greece. This is said to be synonymous with subsp. *sibthorpii*, although I have a sneaking feeling that at least some plants grown under this name today are the Mallorca plant.

White colours are common today in garden 'polyanthus' (*P. x tommasinii*). These are recessive to one yellow allele and two red alleles, and so white flowers are unlikely to arise in the British countryside as a direct result of pollination of wild primroses with garden pollen.

I am less clear about the status of white *Viola odorata*. White forms are also more common than the purple in Northumberland, and in our area, garden plants are nearly always white. I suspect that most if not all 'wild' *V. odorata* in our area is in fact of garden origin, and is thus white, although the Floras seem never to admit to a hortical origin for this species.

JOHN RICHARDS, Department of Agricultural and Environmental Sciences, University of Newcastle upon Tyne NE1 7RU

MORE ON WHITE ORCHIDS

White-flowered specimens of *Dactylorhiza majalis* s.l. are certainly rare. One or two such specimens of subsp. *praetermissa* have occurred in most recent years at Greywell (v.c. 12) but I have never seen any elsewhere and Milne-Redhead's example (1991) is only the second I have heard of, the other being in v.c. 22, though I cannot remember the details.

I have never seen white-flowered subsp. *purpurella* but have heard of it in Anglesey (v.c. 52, I. Brown, pers. comm. 1991), also in Scotland and Yorkshire s.l. (details forgotten). White specimens of subsp. *traunsteineri* have quite often been seen at Cors Erddreiniog (v.c. 52, !) and Thornton-le-Dale (v.c. 62, per various informants). I have neither seen nor heard of white flowers in subsp. *occidentalis*, *scotica*, or *lapponica*.

Incidentally, and to be pedantic, it is not these **plants** which are albino but their flowers; an albino entity should, surely, lack chlorophyll and other dyes as well as anthocyanin (to coin the word "ananthocyanose" to describe those lacking anthocyanin but otherwise normal would be too ghastly!). Truly albino orchid plants must be very rare indeed; *Neottia nidus-avis* var. *nivea* Magn.

ap Schultze is the only one that comes to mind, though *Cephalanthera damasonium* var. *chlorotica* Tahourdin is close.

Horsman's "semi-albino" *cambrensis* is certainly remarkable; I found an equivalent, or at least an example of what is probably the same mechanism, at Magilligan (v.c. H40) in 1970 in a plant of *D. incarnata* whose flowers were the colour of subsp. *incarnata* on one side of the spike and of subsp. *coccinea* on the other.

This brings me to Horsman's *incarnata* lacking anthocyanins.

Truly albino flowers in *incarnata* (= f. *leucantha* Landwehr) seem to be very rare; I have only seen examples at Greywell (v.c. 12), Pentraeth (v.c. 52) and Wicken (v.c. 29).

Much more frequent is the form with creamy-white flowers usually shading to pale yellow at the mouth of the spur (I have not seen the green tinge mentioned by Horsman). This is quite common in the acid-soil colonies of subsp. *pulchella* (e.g. the Surrey heaths and the New Forest), and is not rare among subsp. *coccinea*; a *coccinea* colony at Skaill (v.c. 111) in 1977 had c.10% of them, though they seem to have died out later (Miss E.R. Bullard, pers. comm. 1989). Bateman and Denholm (1985) refer to its occurrence among subsp. *cruenta* at L. Carra (v.c. H26).

Bateman and Denholm (ibid.) discuss pigmentation in the species in considerable detail and specifically referred to the illustrations in Landwehr (1977); however, they refrained from using the name f. *ochrantha* Landwehr. I think that if this name were better known and understood there would be less confusion with subsp. *ochroleuca*, many records (and not only recent ones) of which are distinctly suspect.

References

- Milne-Redhead, E. (1991). More about White Flowers, *BSBI News* 58.
 Horsman, F. (1991). On Some Curious Dactylorchids, *BSBI News* 58.
 Bateman, R.M. and Denholm, I. (1985). A Reappraisal of the British and Irish Dactylorchids, *Watsonia* 15(4) 1985
 Landwehr, J. (1977). *Wilde Orchideeen van Europa*, Amsterdam. This is more accessible in its slightly revised French-language editions *Les Orchidées Sauvages de Suisse (France) et d'Europe*. Lausanne, 1982/3.

DEREK TURNER ETTLINGER, Royden Cottage, Cliftonville, DORKING, Surrey RH4 2JF

WHITE-FLOWERED RANUNCULUS ACRIS

Edgar Milne-Redhead describes a white-flowered form of *Ranunculus acris* from Suffolk in *BSBI News* 58:13.

Twice in Shetland I have seen what seems a very similar form of this species - a single plant on Fair Isle in 1963, and a few plants at Cunningsburgh, South Mainland, in the following year. In my notes I described the Fair Isle buttercup as having petals pale lemon-yellow on the outside, cream-coloured or almost white on the inside (nectary pale yellow); sepals with pale yellow borders; stamens pale yellow, not golden as in the type.

I have never met with such a form again, either in Shetland or elsewhere. It must be quite unusual.

RICHARD PALMER, 11 Fleet Way, DIDCOT, Oxon. OX11 8BZ

"DIFFERENT" COLOURS IN FLOWERS IN v.c. 111

In v.c. 111 I have seen **white** *Armeria maritima*, *Calluna vulgaris*, *Cirsium vulgare*, *Dactylorhiza incarnata*, *Erica cinerea*, *E. tetralix*, *Festuca rubra*, *Gymnadenia conopsea*, *Lychnis flos-cuculi*, *Polygala serpyllifolia*, *Prunella vulgaris*, *Rosa mollis*, *Silene dioica* (not the hybrid) and *Succisa pratensis*; all, with the exception of the fescue, not uncommon. I have **never** seen a white *Primula scotica* and white *Scilla verna* has been seen here but not by me. Only **white** *Cirsium vulgare* grows on the Brough of Birsay, associated with ancient Christian churches and with St Magnus the Martyr.

Other flower colours noted were pale pink *Vicia sepium*, pale yellow *Leontodon autumnalis*, double *Ranunculus acris* and double *Ranunculus ficaria*, all are rare.

In v.c. 109 I have noted white *Ajuca pyramidalis*.

ELAINE R. BULLARD, Toftwood, KIRKWALL, Orkney KW15 1SB

ALBINO FLOWERS?

In the Blue Mountains 74 miles west of Sydney is a small road junction called Bell. During the early 1960s the road-side cafe was run by quite a character named 'Perce Bergin' well renowned for the excellent T-Bone Steaks he served. He also had a little property a further 10 miles west on the edge of some 400 acres of the evergreen *Telopea speciosissima* (Waratah). It is the largest concentration of Waratah anywhere and in the season when the red bracts are in profusion, it is breathtaking and an unforgettable sight.

The Waratah is the floral emblem for the State of New South Wales, Australia, and grows to a height of 10ft. Perce, with the registered growers right to sell the vivid red Waratahs in buckets of water outside his cafe, hit on the idea of immersing a few upside down. After a few weeks, this treatment caused the colour to fade from red to a creamy-white and a talking point was created by one of these faded specimens being placed amongst a group of freshly picked red ones. He used to really enjoy listening to many of the car-key swinging dowagers from Sydney and others claiming to be aware of 'Albino' Waratahs.

I'm sure Perce would not mind me sharing his Sales Secret of the 60s with BSBI members.

NORMAN DOWNIE, 34 Shoebury Road, THORPE BAY, Essex SS1 3RS

[Norman is 'a native Australian recently retired and now resident permanently here'. Ed.]

WHITE FORMS OF FLOWERS IN MID-KERRY

I was interested in the articles relating to white forms of flowers in *BSBI News* 58. While it is not unusual to come across white-flowered forms of certain species, it may well be for others. Some unusual types recorded by me in the region were *Vicia sativa*, *Centranthus ruber*, *Lamium purpureum*, *Succisa pratensis*, *Saponaria officinalis*, *Centaureum erythraea* and *Armeria maritima*.

Colour variation is a fascinating aspect of botany and can be both exciting and rewarding for those who study the phenomenon.

MICHAEL O'SULLIVAN, Knockavota, MILLTOWN, Co. Kerry, Ireland

WHITE FORMS OF *GERANIUM ROBERTIANUM*

With reference to the recent notes on white forms of *Geranium robertianum*, there is a pure white form without red pigment grown increasingly in gardens and known as 'Celtic White'; it is available from a number of nurseries. The foliage is a fresh bright green, and my plants have not a hint of red pigment, even at the nodes. However, although it is a very pretty plant it has proved such a prolific self seeder in sun and shade that I have reluctantly decided to eradicate it. It spreads rapidly, rosettes and then flowering growth smothering less robust neighbours and it also frequently germinates in the grit on seed pots of alpiners and threatens emerging seedlings.

Peter Yeo discussed the white and almost white forms of this plant in his book *Hardy Geraniums* (Helm, 1985) and points out the distinction between 'Celtic White' and subsp. *celticum* from W. Ireland and S. Wales with its pale pink flowers and red-brown pigmentation at the nodes and bases of the petioles.

Just to increase the potential for confusion there is a plant available from some nurseries called 'Album' a strongly pigmented, trailing form with large white or almost white flowers, but this may be the same as forma *bernetii*. Then there's 'Cygnus' with white flowers and only slight pigmentation - but this may be the same as forma *leucanthemum*. As these plants become more popular in gardens there is potential for even more confusing names being coined by gardeners.

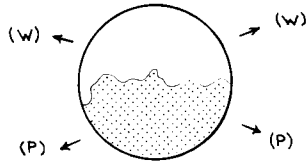
As an aside, the normal species has even been used as a bedding plant at Kew!

GRAHAM RICE, 70 Benefield Road, OUNDLE, Peterborough PE8 4EZ.

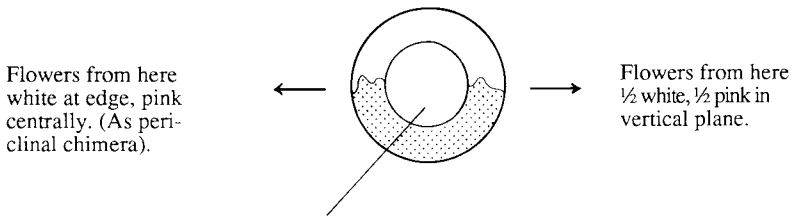
'SEMI-ALBINO' *DACTYLORHIZA MAJALIS*

The 'semi-albino' plant of *Dactylorhiza majalis* described by F. Horsman (*BSBI News* 58) would appear to be a sectorial chimera for anthocyanin production due to a somatic mutation in the apical meristem at an early point in growth.

If, for example, the plant was heterozygous for any enzyme essential for anthocyanin production, then a mutation in the relevant gene in one apical meristematic cell will result in a line of derived cells incapable of anthocyanin production. These will grow and divide as will the normal cells, giving a shoot which in cross section may be as in the figure below:



Flower buds growing out from this will be white from cells without anthocyanin (W); and pink (P) from cells with anthocyanin. Where the two types of cells adjoin, it will be possible to get flowers which will be part pink and part white.



Flowers from here white at edge, pink centrally. (As periclinal chimera).

Flowers from here 1/2 white, 1/2 pink in vertical plane.

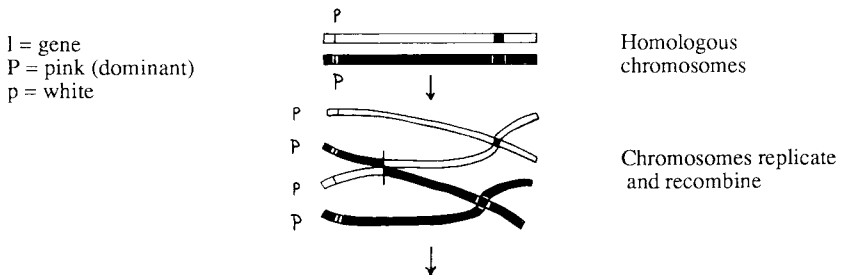
N.B. *D. majalis* mature inflorescence has hollow stem

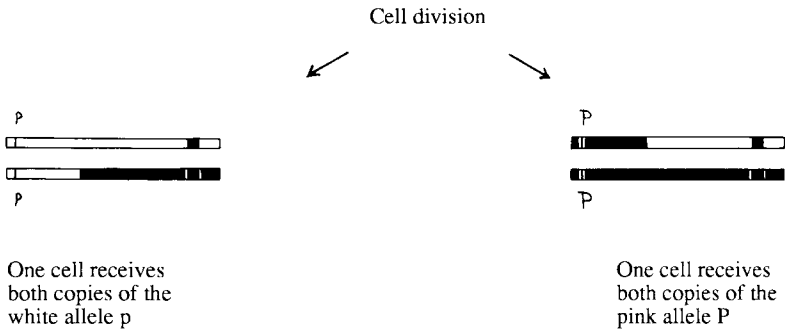
Diagrams adapted from *The Growing Plant* by W. Neilson Jones. A more comprehensive study can be found in *Plant Chimeras* by R. Tilney-Bassett.

In the event of self pollination being possible in this species, either within a single albino flower, or between one totally white flower and another on the same plant, then it might be possible that a generation of truly 'albino' flowered plants could arise from the seed. (Does anyone know if this species can successfully self pollinate?)

As to how mutations may occur; on the molecular level it could be due to 'Point mutation' (substitution of one DNA base for another), 'Insertion' (of extra DNA bases), 'Deletion' (of relevant DNA bases) or 'Transposition' (the movement of DNA into a gene, thus inactivating it.) Any of these can give an incorrect DNA sequence and a subsequently inactivated gene.

On the chromosomal level, mitotic recombination in a heterozygous plant can result in one daughter cell homozygous for pink and the other homozygous for white.





A more experienced geneticist may offer even more possible explanations!

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WHITE-FLOWERED PLANTS - FINALE

I have been most interested in the correspondence sparked in *BSBI News* 57 & 58 by my letter about white flowered variants. Apart from the suggestion by Helen Megaw concerning W & NW winds (of which we get plenty) unfortunately I am no nearer an explanation, although it was interesting to see that many other observers had noted the phenomenon.

This year I also noted pure white *Thymus praecox*, a patch about 15cm in the middle of a large area of normal coloured thyme on a cliff top, white *Misopates orontium* growing in fine shingle at the top of the beach on Platte Saline, and white *Cuscuta epithimum*, growing on the ground (again, as is usual here) on *Thymus*, on sand dunes at sea level.

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

[Unless something very exciting turns up, I think we may draw this correspondence to a close. Ed.]

ALLIUM SATIVUM L. (GARLIC)

During 1990 whilst engaged in a botanical survey of Lancaster we found a colony (100+ plants) of an *Allium*. These plants were growing in a salt-marsh in the tidal reach of the River Lune where, during periods of high tides, they would have been partially or totally immersed in sea-water.

A specimen was sent to Prof. Stearn who identified it as *Allium sativum* and commented that this was the first instance known to him of garlic being naturalised in Britain.

We next wrote to the late Adrian Grenfell to enquire if he had any knowledge of *A. sativum* being naturalised in Britain. He responded by telephone, saying that he knew of only one instance and this also was on an estuary, presumably originating from a drift bulb (*BSBI News* 36: 28, April 1984). Both of these sites are on estuaries, possibly resulting from bulbs/bulbils being carried on a rising tide; alternatively they may have originated from garden rubbish being washed downstream.

Most Floras refer to *A. sativum* as a casual, none of those that we consulted refer to the coiling of the stem (which later straightens out), a most distinctive feature that is very obvious. Prof. Stearn confirmed that this is a characteristic of the plant.

A full year after the first finding, the Lancaster colony was still thriving. There can be little doubt that many of the relatively large bulbils from the fruiting heads will have been distributed up and down the estuarine banks of the River Lune and, possibly, out into Morecambe Bay.

We would be interested to hear from others who may have found *Allium sativum*, with as much detail as possible. In the event of a possible response we would consolidate the information and submit a further note to *BSBI News*.

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RECORDING ISLANDS

From time to time objections are raised about the difficulty caused in island groups by recording on the 10km grid system which can obscure the identity of the exact island on which a particular plant is found.

In Orkney, visiting botanists complain most about the inability of separating Hoy, with its 'arctic/alpine' plants, from the adjacent Mainland, but for locals, the greater problem is the very large number of 10km squares to be recorded for a small land area. At least four islands, each well under 5000 ha, manage to spread themselves over four 10km squares each - this includes poor little Papa Westray which has a total area of about 500 ha. Including Sule Skerry, Orkney spreads itself over 37 10km squares yet its total land area is less than ten 10km squares. This makes an assessment of the comparative frequency of a number of species impossible.

No one having come up with a better idea, I have played about with the grid lines and produced a 'modified grid' (see page 13) which does give all the larger islands separate identities and groups the smaller ones, like with like, reducing the total number - including Sule Skerry - to 24 squares. This modification will allow a better comparison with the old *Atlas* than might seem possible at first sight, for I suspect exact 10km square boundaries were not fully adhered to then.

Within Orkney, our local BRC will continue to record on a tetrad-and-island basis and the above modification would only be used for any records normally based on 10km square distribution, for example a forthcoming Flora for which there are insufficient tetrad records and for any new 10km-based *Atlas*.

Comments? Perhaps from other island v.c. Recorders?

ELAINE R. BULLARD, Toftwood, KIRKWALL, Orkney KW15 1SB

IRISH MISTLETOE, A 'HERBARIUM' RECORD!

Mistletoe has so far failed to gain a permanent place in the Irish flora. There are a few records of it on apple trees, including two from eighteenth century Dublin and a more recent one (1909) from Roscommon. Patrick Browne's early report of it on birch in County Mayo was surely based on a witches-broom.

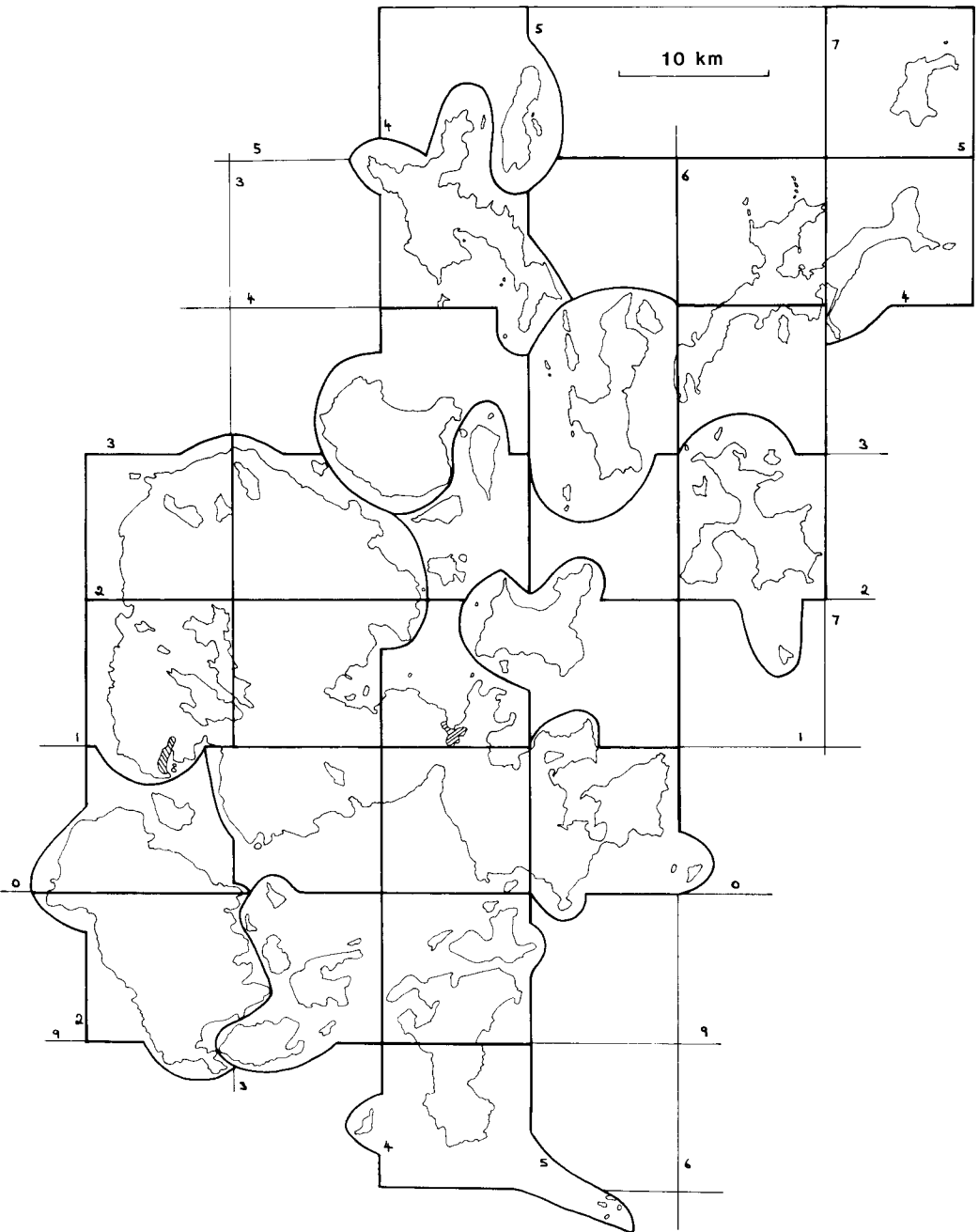
Still rare as a garden plant in Ireland, mistletoe was already 'in cultivation' at the Botanic Gardens, Glasnevin, in 1804, when John Underwood produced his catalogue, though he was mistaken about it being a native Irish plant. The number and size of the plants at Glasnevin have increased dramatically in the past decade. It now occurs on almost all of the common limes, festooning and apparently damaging some of them, and also on poplar and hawthorn. All of these are within the boundaries of the Gardens and although most of the plants are bird sown they are therefore not recorded by 'wild' or even 'introduced' botanists. However, I can see from the herbarium windows three plants of mistletoe on an old Bramley apple tree in a neglected neighbouring garden. The largest plant was first noticed in 1989. It produced berries in the winter of 1990/1991 and abundantly again last season. All of the berries were gone by the middle of January this year, presumably eaten by the mistle thrush which is a regular visitor to the tree.

Is this a (herbarium) record?

DONAL SYNNOTT, National Botanic Gardens, Glasnevin, DUBLIN 9, Ireland

PRICKLY LETTUCE (*LACTUCA SERRIOLA*) - A POPULATION EXPLOSION IN WARWICKSHIRE

The Computer-mapped Flora of Warwickshire (1971) described *Lactuca serriola* L. as a rare plant first recorded in 1959. The distribution map (fig. 1, page 14) shows records mainly from waste places in 20 tetrads from nine 10km squares mostly in the centre of the county. It was at the north-western limit of its range in Britain (Perring & Walters 1962) with all records south-east of a line almost bisecting the county from just west of Stratford-upon-Avon to just east of Nuneaton. As a comparatively rare and distinctive plant, few colonies would have been missed during the many years of surveys for the Flora.



Map of Orkney showing modified grid
redrawn by D. Spillards from an original by E.R. Bullard © 1992

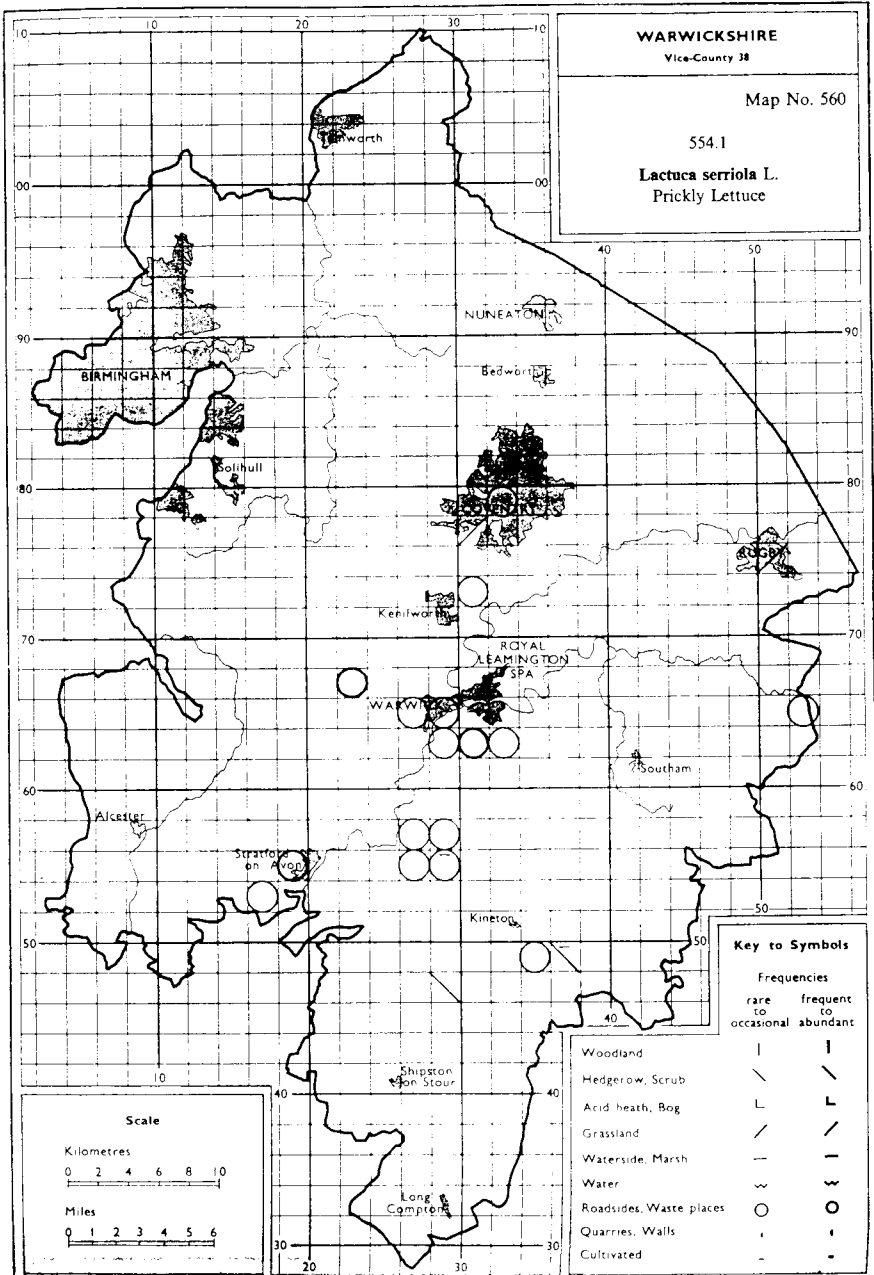
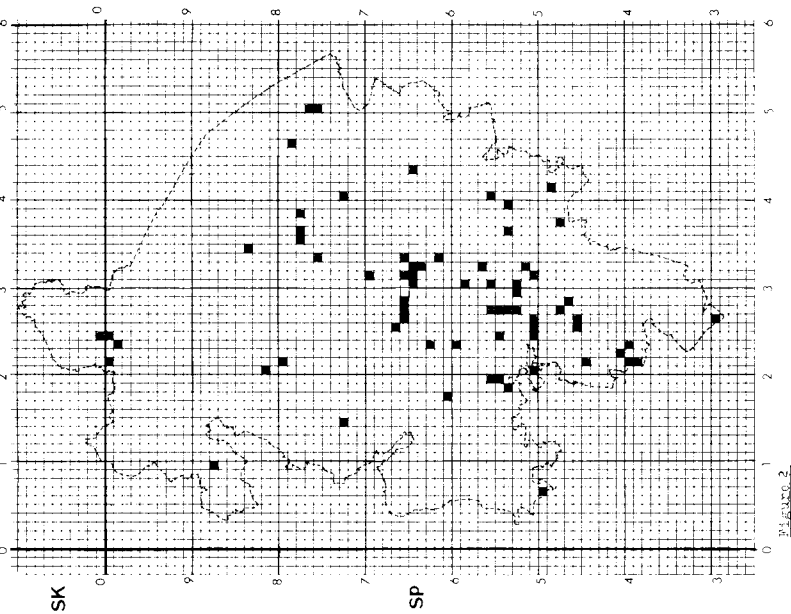


Fig. 1, *Lactuca serriola* in Warwickshire, reproduced by permission from *A computer-mapped Flora of Warwickshire* (1971)

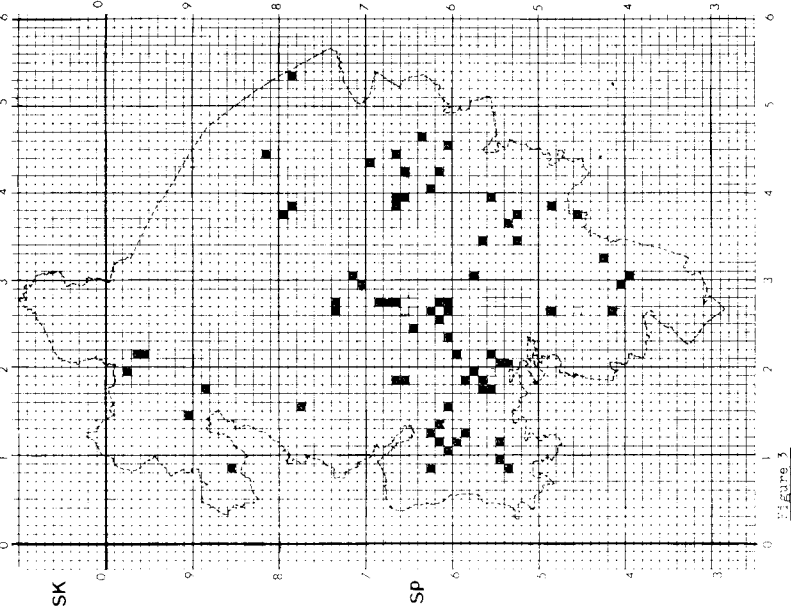
Vice county 38 » « WARWICKSHIRE

Subject recorded: *Lactuca serriola*. - New records 1977-1990



Vice county 38 » « WARWICKSHIRE

Subject recorded: *Lactuca serriola*. - New records in 1991



Figs 2 & 3, *Lactuca serriola* in Warwickshire, maps compiled by J.C. Bowra

Between 1971 and 1986 there was an average of one new record a year. In 1987 and 1988 there was a total of nine, including three found during surveys for the BSBI Monitoring Scheme. In 1989, Pam Copson, BSBI Recorder, invited some 30 Warwickshire wild-flower lovers to join in the fieldwork to discover the extent of increases and decreases of some of the county's wild flowers. *L. serriola* was on the list and records for all sightings were requested. 26 records (19 new) were produced in 1989; eleven (nine new) in 1990 (see fig. 2, page 15). By then it was apparent that an exceptional increase in population and range was occurring and in 1991 a few collectors produced 69 new records, mostly from stable habitats, including at least 23 for single or only two plants (see fig. 3, page 15). There were undoubtedly more to find.

The species had also spread far beyond the demarcation line into the west and north of the county: to Hockley Heath (1472) in 1979, Longford (3483) in 1981, Hampton in Arden (2179) in 1986, followed by ten in the four years to 1990 and a further 20 in 1991. Except for the north-eastern corner, *L. serriola* is now more or less present in all major squares of the county (see figs. 2 & 3, page 15). The spread is in line with national trends but Warwickshire records far exceed national growth of 32% since 1962 (Rich & Woodruff 1990).

Hanf (1986) says that the species "likes a fair amount of warmth" which, in the context of widespread continental distribution (Fitter 1978), means summer heat. Its spread in Britain, therefore, is unlikely to have been influenced by mild winters or recent unexceptional summers. However, *L. serriola* is a plant of moist or dry soils (Fitter 1978) which explains its distribution in this country where even after expansion it is mostly confined to areas with an annual average rainfall of less than 30". Thus the spread of this naturally fluctuating annual/biennial plant, particularly across the demarcation line, could at least have been assisted by several years of below average rainfall.

Much more exceptional in Warwickshire since about 1987, has been a considerable number of major civil engineering projects. Besides the M40 and M42, there have been many new major by-passes, roundabouts, road-widening, estates for industry and houses, golf courses, and other excavation work, particularly gravel pits. *L. serriola* has a preference for "places where large amounts of earth have been moved" (Prince & Carter 1977) and this has been amply demonstrated at many sites.

Between the two world wars there was a similar increase of population in Surrey and Hertfordshire. It was thought that the impetus came from gravel pits "associated with the development of arterial roads which gave the requisite density of propagule production that appears necessary to ensure rapid spread" (Salisbury 1953).

It is evident that in Warwickshire between 1988 and 1990 *L. serriola* achieved the requisite density of occurrence on a number of widespread moved-earth sites: for example, a considerable increase probably associated with the construction of the M42 was reported in 1989 from and around gravel workings in recently colonized north-western Warwickshire (SP29); and many plants were found in 1990 around M40 motorway construction works near Warrington (4148). The ensuing epidemic of wind-blown short-lived seeds (Roberts 1986) apparently travelled far and wide to produce in 1991 many of the 69 reported new records from less favoured habitats. Colonization was probably assisted by several comparatively dry years.

If the experience of the 1930s is repeated, many of the new colonies should persist.

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AN UNKNOWN *SORBUS* IN LANCASTER

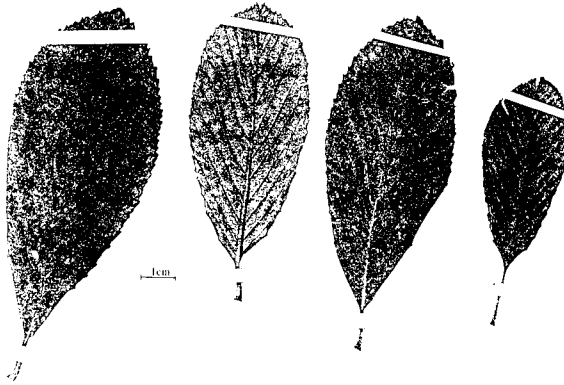
During 1990, whilst botanizing the City of Lancaster, we encountered a difficult-to-identify *Sorbus* which was planted as a street tree and also at a recreation ground. These were all young trees, approx. 12ft tall, all had reached flowering size and had set fruit.

The young trees have upright curving branches and the leaf shape is as illustrated: single toothed, typically 10-12cm long with a maximum width of 3.5-4.0cm. Most leaves had eleven veins on each side of the midrib. The upper side of the leaf is green and the underside felted white; fruits red, few if any lenticels, 12-14mm x 9-10mm; calyx persistent.

We have failed to identify this species from the literature available to us. It is possible that they are cultivars and, therefore, horticultural-trade reselections.

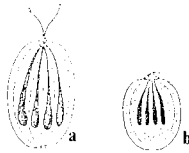
We would be interested to hear from other members who may find this same *Sorbus*, and whether they know its identity?

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MORE ON GIANT HOGWEEDS

Mr J. Fenton (*BSBI News* 58) is right. The plant he saw at Tromsø is different from the giant hogweed he is used to seeing in Britain (*Heracleum mantegazzianum*). It differs notably in characters of the fruits which are so important in the classification of the Umbelliferae (see fig. below), and also in other details.



Fruits of a) *H. mantegazzianum*, b) *H. "laciniatum"*. © Lid 1963, del. D. Tande Lid.

The naming of the "Tromsøpalme" is very difficult. It is definitely not *H. sibiricum* L. The other name mentioned by Fenton, *H. laciniatum* Horn. is the one used in recent Floras (e.g. Lid 1963) but it should be abandoned as it is illegitimate (a later homonym of *H. laciniatum* Desf.), and based on a plant grown in the Botanical Garden in Copenhagen, not likely to be identical with the plant from Tromsø. Brummit has in *Flora Europaea* (1968: 366) tried to introduce the name *H. persicum* Desf. for it, but this is also incorrect (Øvstedal 1987: 25-26).

At present there appears to be no valid name available for it. However, it may well prove to be identical with one of the many giant hogweeds described from the Soviet Union particularly as it is likely to have come from that country, as part of the trade along the Polar coasts.

Unfortunately the exact origin of the Tromsø taxon is uncertain and this further complicates the work to find its proper name.

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PEDICELLATE LOWER FLOWERS IN RELATION TO *OROBANCHE MARITIMA*

Views on the status of the taxon originally described as *Orobanche maritima* Pugsley have been expressed in several recent issues of *BSBI News*. David Hambler (Hamblen 1990) suggested that the presence of pedicellate flowers in the lower portion of the inflorescence in plants from coastal populations otherwise identifiable as *O. maritima*, might serve as a useful diagnostic character for separating this plant (by inference from *O. minor* Sm.) and establishing it as a distinct species. He quoted two such examples which otherwise conformed to Pugsley's *O. maritima*.

This seemed to be an interesting possibility and following a request for further examples, I checked *Orobanche* species in several herbaria, but found only a single specimen having pedicellate lower flowers (1877, *W.M. Rogers*, LANC). This was collected as *O. amethystea* Thuill. at Christow (v.c. 3) apparently parasitising *Medicago lupulina* L. However four other specimens on the sheet collected from that locality, either at the same time or later, did not possess this feature.

During 1991 I examined at least fifty *Orobanche* populations, but other than in members of the Section *Trionychon* Wallr. (e.g. *O. ramosa* L.), where pedicellate lower flowers are normal, I failed to find evidence of this state except in two instances. These were single plants in each of two geographically separate populations of *O. minor* (at Bolton v.c. 59, and Castleford, v.c. 63); both possessed lower flowers with prominent pedicels. The two plants were virtually identical, but differed markedly from the remaining more or less typical members of each population (c.200 and 8 plants respectively), by being relatively robust, having denser-flowered inflorescences and suberect corollas with only vestigial lips. Additionally, the vivid orange-coloured stigma lobes were prominently exerted, and the whole plant had an otherwise deep purple coloration. Both populations parasitised *Trifolium pratense* L., although that at Bolton has been tentatively referred to var. *compositarum* Pugsley (Rumsey & Jury 1991), but it is not obviously so.

Pedicellate lower flowers can therefore occur in populations which do not morphologically or geographically conform to Pugsley's *O. maritima*. Additionally, by occurring only in plants possessing the other exceptional characters described, it would appear likely that such variation, including pedicellate flowers, could have resulted from particular genetic combinations or mutations or from physiological stress. The presence of pedicels would therefore seem unlikely to provide evidence for a normally suppressed character relevant at species level. Nevertheless, the continued recording of this character might yet be instructive for this or other reasons.

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ALTITUDINAL RANGES

I was interested in Graeme Kay's note (*BSBI News* **59**: 9, 1992) on *Spergularia marina* growing at 440m (1440ft) in Cheshire, partly because this greatly exceeds the altitudinal limit (100ft in Co. Clare) given in the 'standard work' on the subject - A. Wilson's *The Altitudinal Range of British Plants*, 2nd edition, 1956.

But on a more general note I feel that this subject is one that would be ideally suited to incorporation in the *BSBI Database* (Leicester). The Database (see *BSBI News* **59**: 43-44, 1992) now contains all the taxa that will shortly appear in D.H. Kent's list of vascular plants of the British Isles, and the addition of further sorts of data is therefore a relatively simple job. In fact altitudinal data

were one of those categories specifically mentioned in the article cited above as being desirable, and it was also noted that there would be a need for "the necessary people to assemble the data". The inputting and some of the editing would be done at Leicester, in collaboration with the compiler. The BSBI Database Advisory Subcommittee would of course need to approve the project.

I would be very glad to hear from anyone interested in a project of this sort.

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NATIVE OR INTRODUCED? AND HOW MUCH DOES IT MATTER?

In August 1991 a Forestry Commission worker found a little pink flower in a damp ride like none he had ever seen before. He called the attention of the Forest Ranger to it, and a day or two later the Ranger, the local NCC officer and the BSBI v.c. Recorder (me) met on the site, kept confidential for obvious reasons, and found themselves in two minds about whether they were witnessing the recrudescence of a Red Data Book species. Fortunately (?) one of the eight specimens had already been damaged by treading, and we were able to collect it and submit it to Chris Preston for an opinion. The verdict was that we had found a not specially rare bird-seed alien, **Lythrum junceum*, growing in what for it was perhaps a rather unusually appropriate habitat, in a damp wood among what was predominantly *Juncus bufonius*. Nobody I have spoken to in the BSBI so far seems particularly excited about this as a botanical event. It is the first record for v.c. 55, but being an alien species does not I think qualify for a mention in *Watsonia*, Plant Records.

However, I have not been able to get the incident out of my mind, and I am now delighted to find that *Lythrum junceum* gets full treatment as a species with an asterisk (introduced) in Clive Stace's New Flora, the first British Flora to treat it so. Looking back over the twenty years since the publication of *Flora of Rutland*, I now find myself recalling several other botanical incidents which either parallel this or contrast with it.

1. The Eye Brook Reservoir was built and filled just before the second world war (1938); *Limosella aquatica* has only been seen there once, when the water level was exceptionally low during the 1976 drought, but *Rumex palustris* has been seen between the 'tide marks' most years since 1961.
2. Rutland Water was filled in the late 1970s; *Limosella aquatica* and *Rumex palustris* both appeared in small quantity in intensely competitive situations in 1990, whereas *Rumex maritimus*, of which there have never been more than half a dozen plants at EBR in a drought year, began to spread at RW in the 1980s and by 1990 there were tens of thousands of plants in five tetrads (and two hectads).
3. *Draba muralis* was first collected from limestone walls in Glaston village in Rutland in 1933; it was next observed there in 1965, and after that was recorded annually until the wall constituting its main stronghold was destroyed and rebuilt in 1969; it was rediscovered on a wall nearby in 1973, and occasional plants were seen for several years after that; none have been seen since 1984. During the whole of this period, **Sedum dasyphyllum* has flourished on the same walls unchecked and has now reappeared on the rebuilt wall.
4. *Thlaspi perfoliatum* was first observed in a Rutland railway goods yard in 1965; the yard was closed in 1962 and ten years later had been almost wholly taken over by light industry; when last seen a few years ago the Pennycress had spread along the railway bank a hundred yards or more beyond the limits of the former yard and was no longer to be seen anywhere in the yard itself. In the map illustrating the contribution on the Scarce Species Project in a recent circular to v.c. Recorders, *T. perfoliatum* distribution is shown with blobs for 'native' records and crosses for 'introduced' ones; at the time Tim Rich was considering the Rutland record, I suggested to him that there was no very good reason why the Rutland population, in good limestone country should not be a residual population of local ancestry, reappearing after escaping notice since long before the railways were built. It seems to me now that an admitted balance of probabilities was not enough to justify such an uncompromising application of the cross symbol for an 'introduction'.
5. In 1982, **Saxifraga rosacea* subsp. *sponnhennica* was found well established on an old brick culvert carrying a farm track over a stream halfway between two Rutland villages and a mile from either. It flourished and was admired locally for several years, and then the brickwork was

repointed and the Saxifrage disappeared; nobody ever knew whether the 'farmer' or the County Council was responsible.

It appears to me that there is analogous matter in each of these six cases, involving four 'NATIVE' and three 'INTRODUCED' species. In each case the HABITAT is man made, and, even in the case of the railway and the culvert, made within the last 150 years. In no case is it suggested that man chose to plant the species where it was subsequently found or deliberately encouraged its spread after discovery. Nor can it be said that once there any one of the species was necessarily doomed through an inevitable inability to propagate itself. Admittedly, the *Lythrum* did seem very small and delicate, but not much more so than the *Thlaspi* or the *Limosella*. Nationally, the *Lythrum*, the *Sedum* and the Saxifrage are introduced species. Locally in Rutland they need a different categorisation to define their status. They and the 'native' examples are all equally 'INTRUSIVES' which may in due time settle and become 'CONSTITUENTS' in the communities in which they find themselves, or may fail to do so, and so prove at least to have been only 'CASUALS'. Whether each is a 'NATIVE' or an 'INTRODUCTION' is virtually irrelevant, and all should equally receive the attention of the v.c. recorder, and the local Flora writer. I hope the planners of the new *Atlas* and the *Scarce Plants Project* will recognise the merits of my argument. I'm sure Clive will.

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LEMNA MINUTA AND AZOLLA FILICULOIDES IN CANALS

Barbara Last and Jack Oliver (*BSBI News* 56 & 58) both comment on the spread of *Lemna minuta* Kunth (*L. minuscula* Herter nom. illeg.) (Least Duckweed) on the Kennet and Avon Canal and speculate on its apparent competitive abilities with *Azolla filiculoides* Lam. (Water Fern) and *Lemna minor* L. (Common Duckweed).

The spread of the plant is of increasing concern. Like so many other invasive aquatic aliens it has become more of a problem than a botanical curiosity to those charged with the management of open waters. A blanketing growth over a large area leads to deoxygenation and fish-kills in hot weather as well as shading out more desirable submerged species. Slow-moving canals are particularly susceptible to invasion. There have been reports of *Lemna minuta* from as far afield as the Grantham Canal in the East, the Montgomery Canal in the West and the Forth and Clyde Canal in the North. Control of the plant on the 12 mile summit pound of the Kennet and Avon Canal has become a priority for British Waterways over the last 2 years.

Little is yet known of the plant's biology and attempts to control it with herbicide and mechanical removal have only been partially successful. It has overwintered well so far and there is an assured starter population for each spring. Its competitive abilities have yet to be proved however and the reported ousting of *Azolla filiculoides* may well be illusory. *Azolla* is notorious for its sudden disappearances and reappearances over several years. There are suggestions that its disappearances may be due to intolerance of temperature extremes and reappearances to mass spore germination.

British Waterways are currently co-funding research with the SERC into the biology and spread of both species (see note by Rachel Janes on page 48). In the meantime we will continue to try and control their spread.

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PSEUDOFUMARIA LUTEA

My note on the sudden spread of *Pseudofumaria lutea* (L.) Borkh. (Yellow Corydalis) in West London (*BSBI News* 59 : 15, 1991) has resulted in some interesting correspondence. My old friend Humphrey Bowen points out that the seeds of Yellow Corydalis have a large aril, and are, therefore, attractive to, and distributed by, ants. It seems probable that ants were usually numerous in the hot summer of 1990 or before. Ant transportation also seems to be the answer to the presence of plants high on walls, railway bridges and other brickwork. Dr Adelaide Stork confirms similar happenings in her Lausanne garden where in 1990, her flower beds were 'invaded' by germinating seeds which in 1991 had become a major weed problem. Finally, M.E. Braithwaite informs me that he omitted

the species from *The Botanist in Berwickshire* (1990) as he did not think that it occurred away from garden walls. Last year, however, he was interested to note several dispersed populations.

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BSBI T-SHIRTS

Diana Griffith (*BSBI News* 52: 29) asks when are BSBI T-shirts going to be available? Margaret Perring already stocks BSBI ties, and has a lovely knitted bluebell jumper (see *BSBI News* 37: 16). I would be happy to arrange for a batch of T-shirts to be printed, but first we must have a design!



These are a few obvious suggestions. We could have botanical jokes such as "Why did the *Typha latifolia*? Because it saw the *Primula veris*", or "Say it with flowers - give a trifold", or for the Pteridologists, "With ferns like these, who needs anemones?". Our referees could have their favourite genera emblazoned across their chests - Dave Simpson could have the chat-up-line "*Elodea*", but I can't see David McClintock wearing "Heather"! I already have one, "The Barbarean", to which John Bailey added "should be crucified", and another showing the *Subularia* drawing from my Crucifer Handbook. Paul Smith has one with "Botanists do it on their hands and knees" cleverly printed on the back, and several Welsh members have one with the BSBI bluebell logo and "BSBI Wales" in glorious technicolor across the front, drawn by Carl Ellis.

Ideas or votes to me please, and I will try to get quotes for the next *BSBI News*.

TIM C.G. RICH, 24 Lombardy Drive, PETERBOROUGH PE1 3FT

SCARCE PLANTS PROJECT

MAP FOR *GAGEA LUTEA*

Could I point out that the map relating to the species account for *Gagea lutea* (*BSBI News* 59: 34 (1991)) was **NOT** up-to-date. The species account was written at the request of the Scarce Plants Coordinator, but because of the shortage of time before publication, the accompanying map was inserted unseen, apparently from currently held Biological Record Centre records. These, of course, are not yet fully up-to-date. Presumably the same has also occurred in the case of other similar, recent species accounts.

MICHAEL J.Y. FOLEY, 87 Ribchester Road, Clayton-le-Dale, BLACKBURN, Lancs. BB1 9HT

[All three maps published in *BSBI News* 59 were provisional and 'out of date' in the sense that they showed the position before the Scarce Plants Project started. The organizers are sorry that this was not made clear at the time and wish to apologize for any embarrassment caused. Ed.]

SCARCE PLANTS PROJECT- A REVIEW

After 18 months of this project it might be worth reviewing the position. As everybody probably recalls, the project was set up by the Joint Nature Conservation Committee (JNCC) then the Nature Conservancy Council and the Institute of Terrestrial Ecology (ITE) to review the status of the Scarce Species in Britain i.e. those species that were thought to occur in over 15 10-km squares, and are therefore too rare to be included in the Red Data Book but under 100 10-km squares. The information is needed by JNCC and the other successor bodies of NCC for all aspects of conservation, from assessing the value of a proposed SSSI to defending existing SSSIs from threats. The position of the RDB species has been updated by Lynne Farrell and her team, by quinquennial reviews, publications and a comprehensive summary of all parts of England and Wales. A joint project by Scottish Natural Heritage and the Royal Botanic Garden, Edinburgh, along the same lines, is underway now in Scotland.

But apart from a few species, information on these Scarce Species is substantially that of the original Atlas, i.e. as at 1960, supplemented with an uneven spread of records submitted later. Records are also available from valuable results of surveys such as Arable Weeds, Limestone Pavement and the Breadalbane Survey, and of course the Monitoring Scheme.

It was always apparent that whilst JNCC and BRC have a certain amount of records, the BSBI and, in particular, the v.c. recorders would have much recent information that might be made available. It also seemed sensible to ask individual members to contribute because here is a project where the data gained are going to be of value straight away in the form of lists and maps to be issued to conservation agency staff. An atlas of scarce species showing up-to-date maps, ecological information and current status will be prepared for publication by JNCC.

I apologize for labouring these points that have all been raised before but I thought it worthwhile at the beginning of the last summer of the project. The vast majority of the v.c. recorders have responded very well to yet another call on their voluntary time and the more I understand these calls the more appreciative I am. Quite a few members have adopted particular species where, in return for print-outs of the known records, they use their knowledge to update these, to weed-out some of the doubtful records and, hopefully, to write text for the Atlas.

But there is still plenty to do. Almost every species I look at (and there are 320+) have some gaps where I am sure there should be recent records. This project has largely kept me in Dorset during the last year, but more often than not, a record of a scarce species made on an outing turns out to be at least an update of a record twenty years old or more.

So please find the list of scarce species in *BSBI News* 57, April 1991, mark these for your area or vice-county and use this summer to really make an effort to look for these species. Whatever the decisions on a New Atlas of all the British Flora, such a project will not be published for at least 8 years. We have the bones to assess the status of the Scarce species now so please make a particular effort for this one season. As usual Alison or I will be pleased to answer any particular problem.

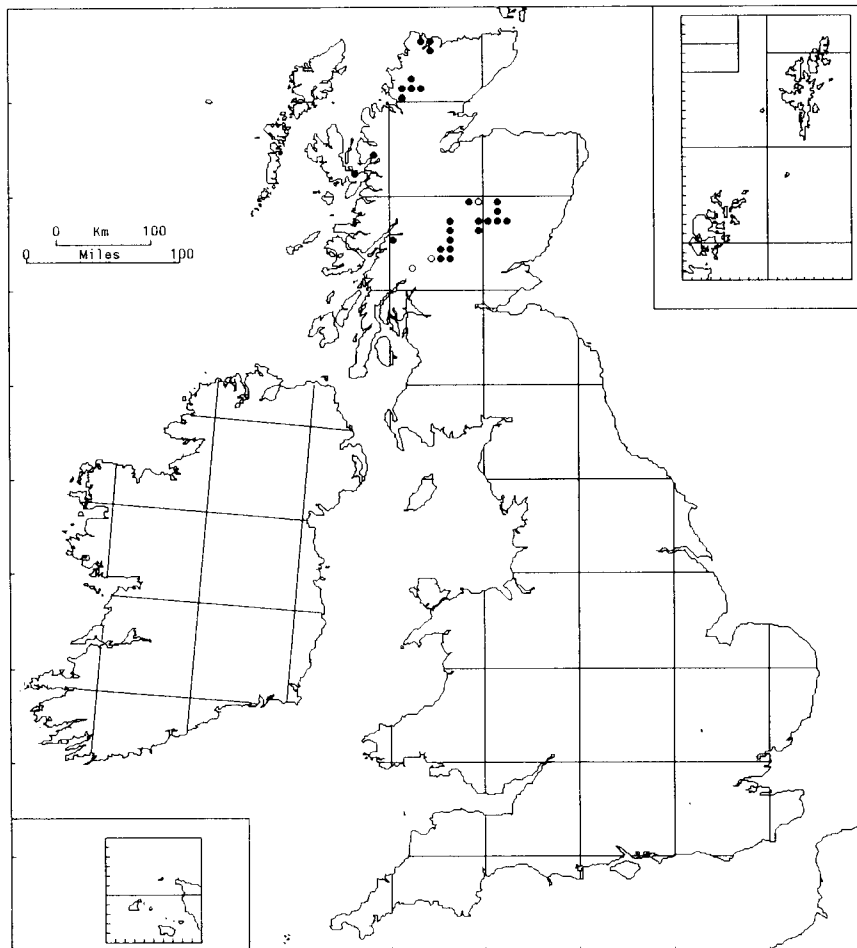
DAVID PEARMAN

FOCUS ON SCARCE PLANTS

In this issue we look at two upland species, *Carex rupestris* and *Sesleria caerulea*. Compared with species featured in previous issues, we have much better post-1970 data. *Carex rupestris* is one of the many sedges on which Dick David has gathered valuable records in recent years. The Limestone Pavement Survey undertaken by S. Ward during the early 1970's provides much of the data for *Sesleria caerulea*.

Provisional maps and text appear as examples of species accounts for the proposed *Atlas of Scarce Plants*. Records recently received at BRC will not be shown on the maps.

ALISON STEWART

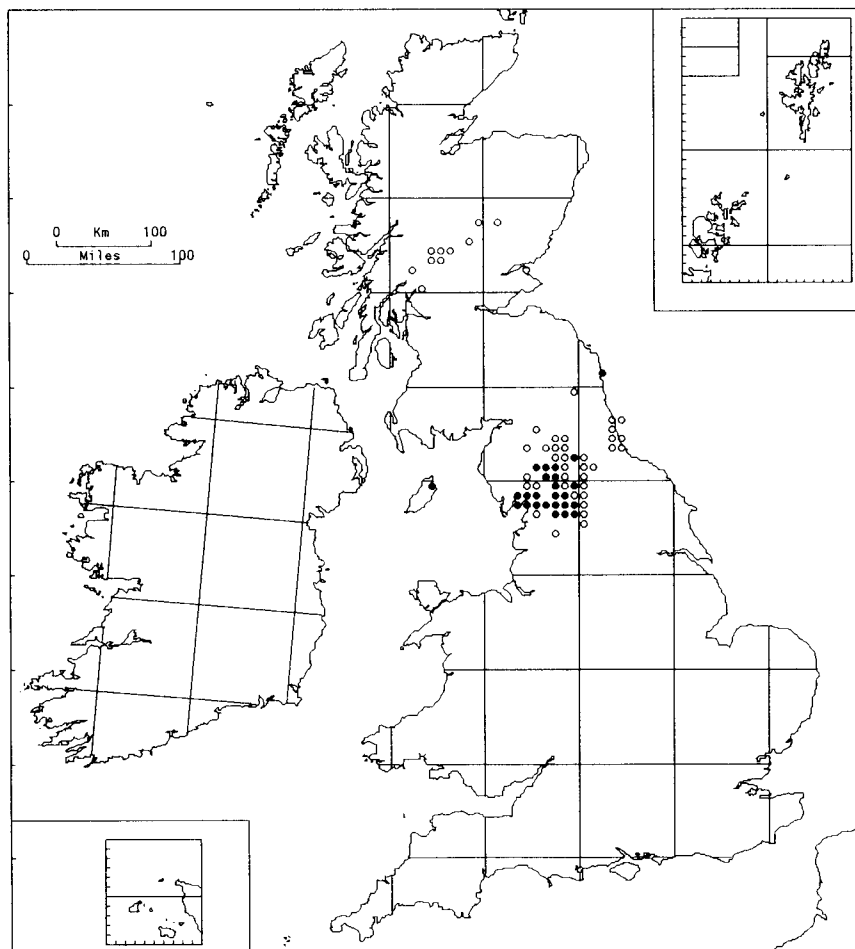
Carex rupestris (Rock Sedge)

In Britain *Carex rupestris* forms extensive but very local colonies on the mica-schists of the Gramians and Cairngorms and on the limestones of Skye, Kishorn and Sutherland. This sedge is aptly named for it is most often found, frequently with *Dryas*, on steep cliffs to which its conglomerate tufts are anchored by the deep penetration of their rhizome into cracks in the rock; but it may also colonise damp moraines. In the far north it descends to sea level.

In some stations it is apparently very shy-flowering but in others it sets abundant seed. In any case the tufts are evidently long-lived.

An arctic-alpine, *Carex rupestris* is found all along the arctic coasts of Europe (including Spitzbergen and Novaja Zemlja), Asia and America from Kamchatka to Alaska; descends the chain of the Rockies as far south as Colorado; and occurs on suitable soils in all the higher mountains, Pyrenees, Alps, Caucasus, Urals and Himalayas.

Because of its special habitat this sedge is hardly at risk.

Sesleria caerulea (Blue Moor-grass)

Sesleria caerulea occurs on the carboniferous limestone of Lancashire, Yorkshire and Cumbria, and on the magnesium limestone of Northumberland and Durham. Also found in a few sites on mica-schists in the Grampians and the Breadalbane. It grows in a number of habitats including limestone grassland and heath, limestone pavement, and light woodland. It can become locally dominant on upland grassland, cliffs and screes due to its ability to withstand drought.

Seeds germinate freely, but lack competitive ability on more fertile soils.

Sesleria caerulea sensu stricto is only found in Europe, occurring in Iceland, the Alps, Carpathians, Pyrenees, and isolated lowland sites.

The species is not threatened in its Northern stronghold. This account is based on Dixon (1982), which provides a detailed account of the ecology of the species.

Reference

Dixon J.M. (1982). *Sesleria albicans* Kit. ex Schultes (Biological Flora of the British Isles no. 151). *Journal of Ecology* **70**: 667-684.

A Stewart

NOTES AND ARTICLES

LATIN AND VERNACULAR NAMES PLEASE

Like Keith Hyatt (*BSBI News* 59: 45) and Gordon Knight (*BSBI News* 58: 19) I too would like to see the Latin name and vernacular name at 'the start of a paper'. Could this also be applied to *Watsonia*, or is that going too far?

My botanical Latin was late in developing, but is improving steadily. However, I find I don't read some articles as I am unsure of the plant under discussion. Surely the BSBI wishes to encourage us 'enthusiastic amateurs' to broaden our knowledge? Often I find I have little enough time to read, and to have to break off to look up a plant is frustrating, so I pass on to something I am more familiar with. This doesn't improve my Latin or my botany!

KATE BILLMORE, 3 Greenhill, Haxey, DONCASTER DN9 2JE

[Both Latin and vernacular names will be given from the next issue. Ed.]

CYNTHIA EVELYN LONGFIELD (1896-1991) - A TRIBUTE

Cynthia Longfield died at her home, Park House, Castlemary, Cloyne, Co. Cork on 27 June, 1991 aged 94. She had been a Life Member of the BSBI since 1932 and was the last of the Longfield family in East Cork (another branch had resided near Mallow, Co. Cork). The family home was the extensive demesne at Castlemary but a second home was maintained in Belgravia, London, where Cynthia was born on 16 August, 1896. Cynthia Evelyn was the youngest of the three daughters of Alice (née Mason) and Montifort Longfield. Her father, as well as being a manager and farmer of his estates, was a serving officer in the Life Guards hence the home in London.

Cynthia was never subject to formal schooling, but instead she received her education at home from a succession of governesses. She was a self-taught naturalist and during the months spent in the Irish countryside she foraged in hedges and woodland seeking caterpillars to rear. Although she took "a keen interest in botany" her concern was centred on birds and insects. In London, living near the Natural History Museum, she could compare her specimens with those in the museum's collection and had identifications confirmed. In this way knowledge was built up and progression was made to a high standard. Cynthia became well known in insect circles and this resulted in her acceptance as an amateur entomologist on the *St George* Expedition to the Pacific Islands in 1924. She collected butterflies but concentrated on the Odonata (dragonflies and damsel flies). Following the expedition, she was recognised as a fully-trained field entomologist. Cynthia Longfield became an unsalaried Associate of the British Museum (Natural History) and, as a serious scientist, she was allowed to work full-time amongst the collections. During World War II she was the local Fire officer in the Brompton area and as officer-in-command she directed the Fire Brigade's full resources to the Museum, and was thus instrumental in saving the collections during the Blitz. From 1948 to 1957 she was an Honorary Associate of the Museum.

Later expeditions were made to the Mato Grosso of South America (1927), to SE Asia, Sri Lanka and other areas (1929), Canada (1929), Kenya, Uganda and the Congo (1934), and South Africa (1937). She attended many scientific meetings concerned with her subject. For a period she served as President of the London Natural History Society and on the Council of the Entomological Society. In 1937 she published *The Dragonflies of the British Isles*, and there followed numerous papers on the Odonata over the years. She also did much field work with Colonel Niall MacNeill, who was at one stage head of Ordnance Survey of Ireland. She helped him with Odonata determinations and he too became an expert.

Cynthia Longfield had 'ample means' - a fully staffed house in London and a personal income on which to live and fund her travels. The income derived from the considerable family wealth. It is reported that in 1850, Cynthia's grandfather owned "5,500 acres of land, more than 300 houses in the immediate vicinity of Castlemary, quarries, police barracks ...stretches of quays, Roman Catholic chapels, the Coastguard Station and Lighthouse at Ballycotton ...property in the city of Cork ...the entire estate was recorded as being of 10,813 acres". Due to revision of laws relating to land in Ireland, planter land was acquired for local landless people under the Land Purchase Acts made by the British Government so that, at the time of the death of Cynthia's father in 1929, the acreage of land owned by the Longfield family was much reduced.

In 1956 Cynthia Longfield 'retired' from her desk at the Natural History Museum and returned to her home in Ireland. From that time until her death she lived at Park House on the Castlemary demesne. She continued to travel, to Holland (1958), Greece (1961), Malta (1967), Moscow (1968), and Canberra (1972). In 1983 she was instrumental in the formation of the British Dragonfly Society. At about this time she donated many Odonata specimens to the Zoological section of the National Museum of Ireland and her entomological books to the Royal Irish Academy. Also throughout her travels, Cynthia collected plants and specimens for the Royal Botanic Gardens, Kew, the Natural History Museum and Tresco Gardens in Scilly.

Cynthia Longfield is remembered by the present writer for her support for the meeting arranged in 1963 to inaugurate a branch of the BSBI in Ireland. At the meeting held in the Botany Department of the Royal College of Science, Dublin, when some voices pressed for two branches in Ireland, she spoke up and insisted that "this meeting elect one committee for the whole island". Her voice prevailed. In subsequent years she attended some field meetings of the BSBI's Irish Regional Branch. At these, when specimens had been examined and pressed in the late evening Cynthia, sitting quietly in a corner, would relate episodes from her travels. Her account of an encounter with a hippopotamus in Uganda and the capture of the rare Walker's Swallow-tail butterfly on an island in the Pacific remain in my memory.

[Most of the above has been extracted from *Madam Dragonfly* - the life and times of Cynthia Longfield, written by Cynthia's grand-niece, Jane Hayter-Hames and published by The Pentland Press, Durham in 1991].

MAURA J.P. SCANNELL, DUBLIN 4

HENRY AND OTHER BOGGARTS (or HEINZ MEANZ ELVZ)

Christopher Perraton's note about common names (*BSBI News* 58: 9) has set me off on a wild goosefoot chase. (Unlike their ornithological counterparts, such chases *can* have a successful outcome!) Mike D'Oyly and Malcolm Degg (*BSBI News* 59: 3 and 39) are surely right in implying that the best book about English folk names of plants is the late Geoffrey Grigson's *The Englishman's Flora*, first published in 1955. Unfortunately both the poorly-bound Paladin paperback edition (1975) and the beautifully produced facsimile edition published by Phoenix House in 1987 are now out of print, though the latter was (incredibly) remaindered and so may still be available somewhere.

Grigson gives **Boggart-flower** and **Boggart-posy** as Yorkshire names for **Dog's Mercury**, *Mercurialis perennis*. He also gives **Boggart** as a Warwickshire name for **Common Duckweed**, *Lemna minor*, and says: "In Cheshire, Shropshire, Derbyshire, Lancashire, and Yorkshire children were scared away from dangerous ponds by talk of Jenny Green-teeth, a pond boggart or elf, whose presence under the surface was shown by the green water-carpet of the Duckweed." *The Oxford English Dictionary* (2nd ed., 1989, Vol. 2, p. 359) gives **boggard** or **boggart** as "A word in popular use in Westmoreland [*sic*], Lancashire, Cheshire, Yorkshire, and the north midlands, and of occasional appearance in literature since c 1570." It means "A spectre, goblin or bogy; in dialectal use, esp. a local goblin or sprite supposed to 'haunt' a particular gloomy spot, or scene of violence." The word is, it seems, unconnected with the obsolete **boggard**, meaning a privy, but related to **bogle** or **boggle** (the earliest of such goblin names, "being common in Scottish literature since 1500") and **bogy** or **bogey** (apparently a 19th-century nursery word). "The derivation of the whole group is uncertain," says the OED (Vol. 2, p. 360), explaining that "the primitive may be **bogge**", perhaps a variant of **bug** with its pre-entomological meaning of a ghost, bugbear or hobgoblin, which may be from the Welsh **bwg**, listed in 1707 by Edward Lhwyd (or Lhuyd), after whom *Lloydia serotina* is named, as "**Bug, A ghost**". Roald Dahl (1981) may have known this when he made George (of marvellous medicine fame) tell his Grandma that the attic was "full of bugs and bogles". **Bugbear**, too, originally meant "A sort of hobgoblin (presumably in the shape of a bear) supposed to devour naughty children" (OED, Vol. 2, p. 627).

So why should *Mercurialis perennis* be a goblin's plant? The clue may be in its generic name. Cato and Pliny describe the virtues of a plant, **herba Mercurialis**, most probably *M. annua*, called after the Roman god Mercury, who was later sometimes identified with Robin Goodfellow (Shakespeare's Puck). **Herb-Robert**, *Geranium robertianum*, which also has several 'Robin' names (see Grigson), was another goblin's plant: its German name, **Ruprechtskraut**, shows that it is the plant of Knecht Ruprecht, a 'house goblin' who accompanies Santa Claus, carrying a stick for naughty

children. One of the piano pieces in Robert Schumann's *Jugend-Album*, with "each phrase starting with a low, menacing rumble, rising on a crescendo and ending with two banging chords" (D.E. Coombe, pers. comm.), is entitled "Knecht Ruprecht".

Jakob Grimm (1785-1863, of the fairy-tales) tells us that elves and goblins are often called Heinz or Heinrich and explains the German name for *Chenopodium bonus-henicus*, **Guter Heinrich** ('Good Henry'), as showing its relationship to these sprites. "The healing powers of the plant have been attributed to such demoniac beings" (Aellen, 1979). Several other plants have 'Heinrich' names, e.g. **Blauer Heinrich** ('Blue Henry') for *Echium vulgare*, **Eiserner Heinrich** ('Iron Henry') for *Verbena officinalis* and **Stinkender Heinrich** ('Stinking Henry') for *Scrophularia nodosa*; and local names for *Chenopodium bonus-henicus* include **Schmotzeheiner** or **Schmotzehoel** ('Dirty Harry' or 'Dirty Hal') in the Schwäbische Alb - "since it favours growing on dung!" - and **Schmalziger Heini** ('Greasy Harry') in Oberbayern - because of the "rather greasy, fatty leaves of the plant". Hegi (undated) says that the name **Guter Heinrich** "indicates that the plant grows near human habitations", since Heinrich means 'king of the home (or household)', just as **Wegerich** (*Plantago*) means 'king of the road'; but could not Heinrich be another 'house goblin' like Knecht Ruprecht? Gilbert-Carter (1964) has another explanation: "'Heinrich' of German mythology was troubled with skin disease, and perhaps the plant was used for cutaneous disorders."

I may seem to have strayed a long way from **Dog's Mercury**; but, just as **Annual Mercury**, *Mercurialis annua*, was formerly **French Mercurie**, so *Chenopodium bonus-henicus*, growing in similar places and once used similarly as a purgative, was **English Mercurie** (Gerarde, 1597). Grigson gives **Mercury** as a northern English name for it and the corruptions **Margery** from Lincolnshire and **Marcaram** from Yorkshire, as well as **Smear Docken** and **Smiddy Leaves** from Scotland (referring again to the plant's greasiness). He also gives **Böser Heinrich** ('Bad Henry' or 'Naughty Henry') as one of the German names for *Mercurialis perennis*, a derogatory one, like **Dog's Mercury**, the old herbalists' **Cynocrambe** (Greek for 'Dog-cabbage') and other names such as **Adder's Meat** from Hertfordshire (see Grigson), because it was "not vused in Phisicke" (Gerarde, 1597) and is in fact highly poisonous. (Aellen gives this German name for *Orobanche* spp. instead.) By contrast, *Chenopodium bonus-henicus* was "called . . . in English, **Good Henry**, and **Algood**" (Lyte, 1578). Gerarde (1597) gives these names too and adds that "in Cambridgeshire it is called **Good king Harry** [*sic*]", but John Ray (1660), who was no royalist, has only "**Common or English Mercury or All-good**" in his catalogue of plants growing around Cambridge.

By the 19th century the version **Good King Henry** was firmly established in British Floras, though other 'book names', used with or instead of it, were **Mercury Goosefoot**, **Perennial Goosefoot** and **Wild Spinach**. **Good Henry**, like the French **Bon Henri**, seems to have been also originally a 'book name', being simply a translation of the pre-Linnaean Latin **Bonus Henricus**, itself probably adopted from the genuine folk name in German. Having no goblins of their own called Henry, our ancestors looked for someone else of that name. So *which* King Henry or Harry? Probably Henry VIII, as it seems too far-fetched to regard this as yet another attempt to sanctify a plant which had pagan associations - like 'christening' the **Cuckoo Flower**, *Cardamine pratensis*, as **Lady's Smock** (see Grigson) - by dedicating it to the saintly King Henry VI. And it is certainly pure fantasy to see **Fat Hen**, a name used for various members of the Chenopodiaceae including *C. bonus-henicus*, as a disrespectful reference to that portly monarch, Henry VIII!

I am very grateful to Dr David Coombe for translating the German of Hegi and Aellen for me and for providing information about Knecht Ruprecht.

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ISBNs

To answer Christopher Perraton's second question, about a consistent pattern in ISBNs, it must first be admitted that their rules (Standard Book Numbering Agency, 1985) allow *either* hyphens *or* spaces between the four sections of a number (though in fact all the five examples he quotes have hyphens): but the ingenuity of the system lies precisely in the *variation* in length between the first three sections, well illustrated by his examples 1, 3 and 5. (Peter Marren's book's ISBN is wrongly presented: it should be 0-7153-9436-3.) The four sections are called Group Identifier, Publisher Prefix, Title Number and Check Digit. The Group Identifiers for the UK and other major English-language countries (e.g. Australia and the USA) are 0 and 1, for several German-speaking countries 3, for Denmark 87, for Argentina 950 and for Cyprus 9963. Thus more of the ten digits remain available in the numbers for books published in countries that produce more books. The same principle applies to the Publisher Prefixes: 40 major English-language publishers (starting with Collins, 0-00) can have numbers for 1,000,000 titles, while minor publishers with six digits (e.g. the BSBI, 0-901158) are given numbers for only 100 titles.

The Check Digit at the end allows a computer to check that ISBNs are correctly listed, almost infallibly, by multiplying the first digit by ten, the second by nine, and so on to the ninth by two, then adding up the products, together with the Check Digit, and dividing the result by 11. If there is no remainder, the ISBN is accepted as correct. This requires 11 possible Check Digits, so X is used for 10 (as in example 5).

The system works even if the hyphens or spaces are omitted (as is done in European bar codes, where the ISBN is preceded by the code for books, 978, and so has a different Check Digit), because higher initial digits are used for longer numbers in the Group Identifier and Publisher Prefix (as in the examples given above), so that every 10-figure number is unique. The ISBN for the book listed below is 0-949999-06-7, showing that the Agency has allocated to itself the last six-figure Publisher Prefix (9500000 being the first seven-figure one) and by 1985 had used only seven of its 100 ISBNs (starting with 00 in the third section); six of these have been for the first six editions of this work.

Malcolm Degg's "ISBN with 9 digits" (586 08209 3) is in fact an SBN: the system was invented in Britain and, when it became international, a zero was added at the beginning of all SBNs to make them ISBNs.

Reference

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GRASS HAIRCUTS

Youthful revelations by some BSBI members appeared in the May & December 1991 numbers of *Plant-Lore notes & news*, edited by Roy Vickery, who gives his permission to reprint extracts: Anthony Galton's description of stripping off all the spikelets from the flower-spike of a grass, twisting the rough bristly central stem in someone's hair followed by a painful pull - then called a 'Chinese haircut' - brought memories to Ray Woods and to David Allen. Ray, now an A.R.O. with the Countryside Council for Wales and a member of the The BSBI Committee for Wales, recalls

that in north Derbyshire in the 1950s, the flowers would be stripped off the stalk of *Alopecurus pratensis*, leaving only the floret stalks on the stem; this, quietly twiddled into the hair of the child sitting in the desk in front - then a swift yank, would speedily remove all the hair attached. "Very painful!" Noting that it doesn't work with *Phleum*, Ray tells us that this was his first introduction to variability in grasses.

For David Allen, ex-President and BSBI Historian, the note obviously brings back vividly painful memories from his Warwickshire preparatory school in the early Forties. David describes the *Alopecurus pratensis* flowering just in time for use as an "instrument of torture" at the start of the summer term, to be "deployed on heads intently watching cricket"....

MARY BRIGGS, Hon. General Secretary

TWO CORRECTIONS TO JOHN AKEROYD'S REVIEW OF *CRUCIFERS OF GREAT BRITAIN AND IRELAND*.

I would like to make two corrections to the review of *Crucifers of Great Britain and Ireland* by John Akeroyd (*Watsonia* 19: 48-49).

First, the BSBI did not commission the Crucifer Handbook, and they took few risks to publish it. When I first proposed the Handbook in 1983, BSBI Publications Committee decided, quite rightly, that it would be unwise to risk a large capital outlay for illustrations on an unknown 22-year old. It was only after Pat Donovan, Graham Easy and Trevor Evans, and later Hilli Thompson, had agreed to do the drawings on a voluntary basis that I got backing from Publications Committee, and they retained the right not to publish it if it was below standard. The only risk that the Society took was in funding the production of camera-ready copy (after Arthur Chater had seen the draft manuscript) and then paying for the printing. The success of the Handbook is largely a tribute to the risks the artists took in doing the work, and I am more grateful to them than I can say.

Second, Akeroyd overlooked a third account of a critical genus by other specialists - that of *Erophila* contributed by Filfilan and Elkington (and acknowledged as such on pages iii, 42 and 256). I am also enormously grateful to these authors, and to Kery Dalby and Bengt Jonsell, for their assistance.

Finally, I enjoyed John's definition of "convention" as his revision of *Flora Europaea*. Dare I suggest the opposite, that *Flora Europaea* ed. 2 will depart from the convention established by the Crucifer Handbook?

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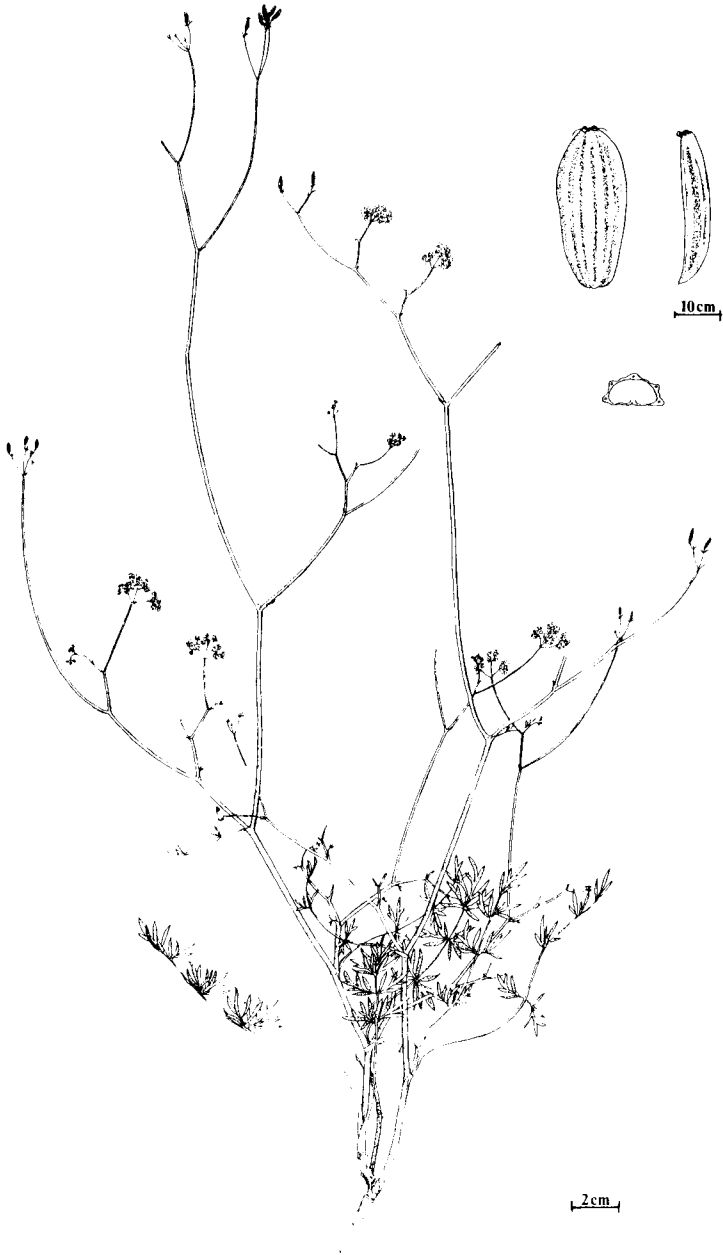
SESELI INTRICATUM Boiss

When Boissier made his remarkably productive journey across the Spanish sierras in 1838 the most intriguing umbellifer species that he named was *S. intricatum*, which he discovered on the Sierra de Gador. He gave a full and accurate description in his *Elenchus*, p. 48, but was unable to report on the fruit, which had not yet developed at the time of his visit.

It is impossible to say how many botanists have followed up Boissier's sighting in the intervening years, though, to judge by the number of sheets in collections they have been exceedingly few. *Flora Europaea* II, 336, gives a perfunctory and less accurate paragraph, still stating 'fruit unknown'. In her treatise on *Seseli* species in Spain (*Lazaroa* 3: 163-188 (1981)), Pardo reports her inability to locate the plant despite several visits to the sierra.

Such a species is bound to be irresistible to the enthusiast and, after doing some research, Martin and Sabina Gardner crossed the sierra in October 1990, eastwards from the village of Castalla. After 33 wet and bumpy kilometres they reached a secondary peak known as Dos Hermanos and decided to turn back. However, on looking around the immediate vicinity, they found a few small plants of the *Seseli*, easily recognised by its stiff habit. The plants were well over, brown, and had dispersed all their fruit.

So, on 18th August, 1991, they returned to the spot, accompanied by C.G. Hanson and myself. There was more activity on the sierra in Boissier's time than at present, I should think, with shepherding and lead mining much in evidence. All that we saw were two pastoral buildings and three people, plus a radio transmitter site. We were glad to find the little group of *Seseli* plants still intact,



Seseli intricatum Boiss., del. C. Hogg © 1992

still in flower but already with well-developed fruit. Our search for more yielded a splendid colony of c.600 plants, up to 90cm tall and obviously on good ground in a quite prominent rib of rocks. It is a rare experience to stand beside such a colony of so obscure a species in such a remote spot. The illustration (page 30) shows a relatively young plant, the fully mature individuals may raise six or more stems from an intricate, twiggy, glaucous base.

Those who have vainly sought *S. intricatum* attribute its supposed downfall or extinction to afforestation or lead-mining. We saw no active mining (but beware of deep pits!), and no young trees close to the colony. Clearly, though, the distribution, status and vulnerability of this singular plant need to be established, and measures for its conservation put into effect, before threats become calamities.

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THE PENNINE BRIDLEWAY - SSSI'S AT RISK

In October 1991 the Countryside Commission published detailed proposals for a new National Trail in Northern England and these have been submitted to the Secretary of State for approval.

Among the sensitive sections of the linear route vulnerable to disturbance and trampling is Tarn Moor, by Sunbiggin Tarn near Orton in the old county of Westmorland. In the Nature Conservation Review its unique ecology and rare vegetation warranted designation as a Grade 1 conservation area. There has been little material change since then to warrant a modification of that assessment.

The Countryside Commission concedes that walkers and mountain-bikers will far outnumber the horse-riders for whom the 'Pennine Bridleway' ostensibly is intended and, undoubtedly, their propensity to wander will be impossible to control on this open and unfenced moorland.

During a consultation period of over twelve-months, English Nature have been unsuccessful in negotiating an alternative route to avoid this Grade 1 site and have sent formal objections to the Secretary of State. Cumbria Wildlife Trust, who only recently learned of the detailed proposals, have also sent strong objections.

English Nature and the RSPB are the only two organisations representing conservation interests who were consulted by the Countryside Commission. On the other hand, thirty-two user-organisations have submitted written comments presumably of a supportive nature.

The discrepancy in numbers, together with the limited consultations regarding the environmental impact of such a Trail suggest an unfair bias, detrimental to conservation interests. BSBI members may believe it necessary to redress the balance. If in their view, the conservation of a distinctive Grade 1 habitat should take precedence over damaging leisure activities which could be re-located, it would be helpful to send written objections to the Secretary of State for the Environment without delay.

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CUTTING ROADSIDE VERGES

I thoroughly agree with Keith Hyatt (*BSBI News* 59: 44) about cutting roadside verges late, so allowing most plants to seed, except on corners, bends and junctions where short vegetation is needed for safety reasons. Such uncut verges are attractive to butterflies. But there is a snag! Councils usually are not prepared to remove the cut herbage, which, after 3 or more months' growth, can be quite considerable. If left on the verge, the vegetation will start to deteriorate and many of the attractive flowers will disappear. Local volunteers or a willing conservation-minded farmer may be persuaded to do this not very easy task. But if not, how can one get over this problem?

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DOROTHEA EASTWOOD (1912-1961) - A MEMOIR

"I may wish to be remembered, but don't expect it" she once wrote. But Dorothea Eastwood should not be forgotten, just over 30 years since her too early death, of cancer. Nothing appeared in print about her then and it is high time that this remarkable woman had her praises sung. For she was a

gifted painter, poetess, writer, botanophil (as she called herself) and a warm percipient personality, with a good sense of humour.

She was born in Vancouver on 17 March 1912 Constance Butler (and a gt-gt-gt-niece of Elizabeth Fry) but after 19 years changed to Dorothea, Doro as her friends called her. In 1934 she married John Eastwood, OBE, KC, MP, 25 years her senior, who died in 1952, a most happy marriage. Their son Hugo was born in 1935.

Her first book, *River Diary* in 1950, was warmly welcomed by the reviewers, based on the fishing hut they had by the River Usk. *Mirror of Flowers* followed in 1953, and enchanted and enchanting disquisition on wild flowers, as I wrote in a review of it. Then in 1956 came *Valley of Springs* with more on the fishing hut but, as before, with constant mention of wild flowers. One of her paintings is on the dust jacket. Finally in 1958 *The Story of our Gardens* was published, an excellent original account.

Since at least the early days of the war, she was contributing poems to *Country Life*, *Time and Tide*, *New English Weekly*, *Daily Telegraph Anthology of Country Life*, *Cornhill and Poetry Quarterly*. A book of 40 of more than 200 of them was published privately, posthumously, in 1963 by her cousin Hugh, all moving and intensely felt, some almost mystic. It included black and white reproductions of her paintings, two of them Foetid Iris and Meadow Cranesbill.

One of her poems is to *Iris stylosa*:

Through the precarious sunlight of December,
 Unsheathing, unsheathing,
 Drawing your blade of petals from the silk-edged scabbard,
 Cleaving the cold sea-clearness of day
 With your delicate nakedness.

Then suddenly, exquisite conjuror,
 There's a noiseless unfurling,
 A loosening and streaming of banners of blue;
 And behold!, Your blade of petals flares and falls;
 Now swords your unnoticed leaves!

and many others have perceptive allusions to flowers and animals.

Her painting, poetry and prose each merit a separate appreciation; here most will be devoted to her life-long passion for wild flowers. She wrote of a suddenly increased and joyful vision on seeing Water Buttercups when she was 5 or 6. Then came four years back in Vancouver (where she also noted flowers) and very soon after her pent-up enthusiasm was let loose on British ones. She entered in her Fitch's Illustrations to 'Bentham and Hooker' when and where she saw them, colouring in many of them. Her first entry is dated 16 Jan. 1923, when she was 10, and on 27 March she found, on her own, her first rare plant, Yellow Star-of-Bethlehem (*Gagea lutea*). She was 16 when she first met the redoubtable Dr Druce, and later had contacts with such knowledgeable people as Lady Davy, Mrs Foggitt, Mrs Richards, Miss Vachell and professionals at the Museums, such as Mr Alston, Mr Nelmes and Mr Wade.

It is surprising that such an active plant lover with a total inability to remember Latin names (or so she claimed, in her typical deprecatory way), who said she could never master the umbellifers, did not belong to the Wild Flower Society. Her cousin Alethea was a long-standing member, with whom she often stayed at Newtimber in Sussex and on Scottish holidays; and she certainly knew its *Wild Flower Magazine*

The stories she relates with verve and kindly mockery of her searches for flowers are richly entertaining, for example of her visit to the Tower of London in July 1948, and of her determined and, on 15 April 1949 successful attempts to see the Purple Saxifrage (*Saxifraga oppositifolia*) in the Brecon Beacons. On 20 February 1950 she set herself to list in six months the wild flowers within three miles of the Cavalry Club. The adventures this led to are told with zest in 34 pages of the *Mirror*, for example in Battersea Park, or during a garden party at Buckingham Palace in May. Here she listed half a dozen waterside plants, almost the first to be noted from there. "To pull the tinkling bell in the wall beside the wrought-iron gate of the Chelsea Physic Garden" was one of her chief London pleasures, but she was allowed to count only Lesser Duckweed from there. The Natural History Museum helped her name the waterweeds fished out of Kensington Gardens, another well told tale. In the end her total was an astonishing 154.

In the *Mirror* she shows what a great deal she had learnt of old botanical books (another of her interests), of old botanists, of the meanings of English and Welsh names and much else, delightfully readable and informative. It is the same with her history of gardens. Why have none of her books been reprinted?

She noted that she had seen 374 flowers in 1923, when she was 11, 656 by the next year, and 719 by 1925, evidence of immense keenness. Her vigorous hunts were halted for a while after her marriage, but the burning passion was rekindled in 1948 and went on for the rest of her life. There are 1315 species in the Fitch Illustrations, some of them from Ireland and Channel Islands, which she never visited. Dorothea noted date and place for no fewer than 993 of them, colouring in 343. In fact she saw over 1000, for Benthams was a lumper, and at least ten others are alluded to in her writings. One of these, the Himalayan Balsam, she drew, and its depiction is in the "Mirror" along with two others of her drawings of plants. In 1948 she started colouring in the drawings in Stella Ross-Craig's *Drawings of British Plants* and kept this up for the rest of her life, some 14 parts. These, and the Fitch Illustrations, are in the possession of her son.

She is mentioned as having contributed to the *Hand List of the Plants of the London Area* in 1951, and to the *Historical Flora of Middlesex* of 1975. Having joined the Botanical Society of the British Isles in 1949, she wrote a hilarious five pages in the "Mirror" of one of their field meetings from Carlisle, and four pages on another from Monmouth in June 1951 in the "Valley of Springs", both, as usual, with her witty tongue in cheek.

I did meet her once or twice, but did not then realise that she was much more than a charming woman with a like-minded interest. She endeared herself to all she met, not the least her cousin, Hugh, the present Duke of Grafton, to whom I am indebted for much help, as I am to her younger sister, Mrs Charles Ashton, to her, and my, cousin Lady Alethea Eliot (née Buxton) and above all to her son, Hugo.

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THE BLUEBELL LOGO

The December issue of *BSBI News* 59: 4 (1991), informs members that the bluebell logo of the Society had been redrawn, redesigned and published on the cover of the *Year Book for 1992*. The earlier drawing, much enlarged and almost actual size, was noticed previously on the cover of *Botanical Books from Oundle*, Autumn 1991. Unfortunately both the earlier and the redrawn logo show incorrect morphology of the bluebell flower. In the original drawing, the lowest flower is depicted as a campanulate form, a 5-merous perianth with 5 patent tips. The *Year Book*, a better drawing - also shows a 5-merous perianth with the tips now pointed and reflexed, an indication that there was an attempt at improvement.

Classification in the higher plants is based on gross morphology. The Liliaceae is characterised as having actinomorphic flowers of uniform floral structure, with 'perianth segments 6', united at the base. The logo does not reflect the structure of the bluebell flower - the symbol of the Society. Even a logo should be correct. Nehemiah Grew, physician and author of the celebrated *The Anatomy of Plants with an idea of a Philosophical History of plants.....* (1682) stated:

"...So that for the Use here intended, those Properties are the fittest to be insisted upon, which are the most Conspicuous, and in those Parts, where the Learner may the most readily and without any difficulty take notice of them; as in the Flower and Leaf."

MAURA SCANNELL, Dublin 4

[This unfortunate error has now been corrected. Ed.]

BSBI & CONSERVATION : TO BE OR NOT TO BE

The Irish antithesis (*BSBI News* 59: 51) is only partially valid. Of course the experts must do their own thing and not allow their expertise to be wasted. But to imply (perhaps unintentionally) that members of conservation bodies are a set of ignoramuses emotionally motivated by a slogan is to disregard entirely the considerable number of expert botanists, including BSBI members, who have been and are currently engaged actively in conservation work. Obviously lobbying, campaigning,

publicity, education and reserve acquisition and management must principally be the province of the 'big battalions'. But big is not necessarily beautiful. It does not take more than a handful of determined and dedicated conservationists, even without resources, to achieve an urgent and on-the-spot rescue of a habitat (see ref. below).

It doesn't matter if we are small, as long as we are reputable and not freaks. In fact, as important as the number of *people* protesting against an unsatisfactory development is the number of *organisations* doing so. So our expertise can be utilized as suggested by Dr Phillips and Mrs Briggs, our man-power as far as there are willing conservationist members, and our cash resources as far as the Treasurer permits.

For recording, surveying and even monitoring are in these changed times not enough. The bulldozer moves in before a survey is even contemplated. After that, there is nothing to record.

Reference

Gravestock, I.F. (1986). Nature Conservation in the Bristol Region. *Proceedings of the Bristol Naturalists' Society* **46**: 26-32.

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BOTTOMISTS STRIKE AGAIN!

The Hon. Gen. Secretary's note ("Botanists sit on a rare orchid") in *BSBI News* **59** reminds me.....

In 1954 John Raven, in a sort of stag party before his wedding, assembled his father (the Canon), Dr Dick Burges and myself for a botanical tour of the west of Ireland. The highlight of the trip was to be the finding of *Inula salicina* on the shores of Lough Derg. I don't believe that any of us had seen the plant before, and I for one envisaged something two feet tall with a large yellow sunflower on top. In an hour's search nothing of the kind had appeared, when the Canon gave a great cry "I've got it!". The scattered searchers rushed towards where the Canon was sitting on the ground. The doctor (a large man) got there first, plumped himself down and cried "where is it?" An agonised shriek came from the Canon: "You're **sitting** on it!" And indeed he was; but the four miserable little stems were only six inches tall and flowerless. We found no more, but managed, with great care, to straighten the doctor's victims.

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ALIENS AND ADVENTIVES

ALIENS AND ADVENTIVES NEWS: PLANT RECORDS

Thank you again for all communications good, bad, extraordinary and invariably enjoyable. Oh, but what a fascinating habitat we are for unusual specimens. I still receive letters without s.a.e.'s and I have even received an s.a.e. without a letter. I still gasp at people's automatic expectations and presumptions which are more alien to my nature than the Man Orchid on the Moon. And I still smile at he and she who would cross words or cross swords or just be cross for its own delight. Except that anything "crossed" could result in sterility...?

Your mail is always welcome, but please don't lose touch with my introductory articles in *BSBI News* **57**, otherwise we risk misunderstandings and we yield less than maximum benefit from our correspondence. And when that unforgettable day befalls when the 'thing' greets your eager eye - yes, it's new to Britain, and it's new to planet Earth and it's incredible, spectacular and profusely abundant - why, it would be so nice to find a seed packet snugly enclosed with the record! Anyway, talking of records...

R.P. Bowman kindly sent me the following from v.c. 11:

Bupleurum rotundifolium, three plants on grassy footpath at base of manure heap on edge of field, Weckock Farm, Lovedean, 1987. Not refound (site sprayed) in 1991. May I incidentally thank those who responded to my brief article on this species (*BSBI News* **58**) which drew attention to

its use in wreaths. It is cultivated in Holland and imported for the purpose. It is not the only funereal Umbellifer we may encounter; *Ammi visnaga* turned up in similar circumstances a year later!

Silene armeria, on disturbed waste ground outside a housing estate at Swaythling, Southampton, 1988, det. S.M. Walters. In my own experience, seeds of this can lie dormant for many years, germinating readily as soon as the soil is disturbed.

Silene coeli-rosa, on bare shingle near car park, South Hayling Island, 1989, det. E.J. Clement.

Cotula coronopifolia, on sandy shingle at driftline at Tipner, Portsmouth Harbour, 1991. Another annual species capable of long seed dormancy, but it is exposed mud which stimulates growth in this case; many botanic gardens have witnessed such behaviour.

Nepeta mussinii, on dry west bank of A32 just SE of the creek near Town Quay, Fareham, 1991, det. E.J. Clement.

Allium ampeloprasum, fourteen plants on roadside at Green Lane, Clanfield, 1991, det. E.J. Clement as *A. habingtonii*. The bulbils of this make a mean weed on my roof garden.

Ambrosia artemisiifolia, garden weed, possibly brought in with mushroom compost, at Garstons Close, Titchfield, 1991.

Chorispora tenella, small group of plants on newly built bank of soil sown with ryegrass, at edge of saltmarsh, Langstone, 1991, det. T.C.G. Rich.

R. Kelsey wrote to me from v.c. 23 with the following:

Dipsacus laciniatus, several plants growing beside the track at Charlbury railway station, 1989 and 1990, det. J. Killick & E.J. Clement as rather atypical. How magnificent - oh for a seed packet!

Mrs A.C. Gregory from Stoughton, Leicester (v.c. 55) observed *Scorpiurus muricatus* under a bird table in 1991. It is one of our less common bird-seed aliens and an attractive curiosity to cultivate.

J.R. Palmer's regular contribution from v.c. 16 never ceases to amaze (and amuse), especially when a list of over 200 observations is accompanied by a letter apologising for a decline in botanical activity. Great stuff, John, and I must come down and see all your Kentish Cotoneasters in flower before too long. Herewith a gentle selection from the list:

Phacelia campanulata, in plantation of small trees E of Swanley, 1990, det. E.J. Clement.

Nerine bowdenii, on bank between road and footpath at Farningham, 1990 (? status).

Chenopodium hircinum, rubbish tip, Stone, 1990, det. E.J. Clement.

Elodea canadensis x *E. nuttallii*?, described as leaves opposite in threes, but very strongly recurved, from Littlebrook Marshes, 1990. E.J. Clement also thinks it could be this; if so it must have been introduced as such, since hybridization is not possible in British rivers. Do we have yet another waterweed taxon which could be widespread?

Narcissus x *haweri*, quite well naturalised in small grassy copse by car park, South Darenth, 1991.

Hyoscyamus niger, field weed, Sutton-at-Hone, 1991.

Campanula planifolia, on a wall by footpath, Bromley, 1991.

Rosa glauca (the purple-leaved rose), seedling in Dickerson's Wood, Bromley, 1991. I have also seen this self-sown in London.

Osmaronia cerasiformis, Chislehurst Common, first found 1988; one colony now has twenty plants, 1991. Londoners may be interested to consult a fine suckering thicket of this unusual North American species planted by the south boundary of Dulwich Park. A deciduous rosaceous shrub to 2m, its tiny, white and surprisingly fragrant flowers are produced in pendulous racemes together with new leaves from late February through March. Some works describe it under the genus *Oemleria*.

Echinops sphaerocephalus, huge colony at Stone, on roadsides, in fields, and on steep cliffs of large chalk pit, 1991.

Verbascum thapsus x *V. phlomooides*, edge of chalk pit, Swanscombe Park, 1991.

Jasminum nudiflorum, naturalised and spreading by derelict church, Knockhall, Greenhithe, 1991.

Ipomoea purpurea var. *tricolor*, many seedlings on a paved area near the river (Bendigo Wharf) at Greenhithe, 1991.

Quercus x *hispanica*, scores of seedlings on landward bank of Thames estuary near Merchant Navy College, Greenhithe, 1991.

Cotoneaster pannosus, seedlings seen in central Dartford, 1991.

Berberis darwinii, *B. julianae* and *B. thunbergii*, all producing numerous seedlings at car park, Lowfield Street, Dartford, 1991. To date, I have seen only the last of these species do likewise in London localities.

I'll just round off with a single observation of my own, the first of 1992, namely an abundance of *Cotoneaster bacillaris* seedlings self-sown in Ravenscourt Park, Hammersmith, London, v.c. 21, their leaves only partially deciduous during the mild January.

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SPRING FLOWERING CROCUSES

Spring-flowering crocuses abound in every London borough. Even amidst our greyest residential quarters, few are the streets which fail to warm the chill of an early month with at least several colourful clumps in somebody's front yard. Better still, most of our broader grassy verges, public gardens and municipal parks regularly greet the eye with hundreds, even thousands of similarly colourful clumps. Many are not only planted but also escaped, self-sown or naturalised. But what do we call them?

For over twenty years, they totally confused me! So abundant they were, so hardy and so enjoyable at every turn - and yet every one was unnameable? Until the early eighties, had our literature ever done full justice to their identification even as garden plants in this country, let alone as aliens? Enlightenment came slowly... gradually. Bowles (1924) gives a fascinating historical background on the intricacies of *Crocus* nomenclature, but proves not so very helpful when it comes to identifying fresh material. In April 1961, I visited that famous meadow at Warley Place, Essex, to gaze, dazed and amazed, at a purple panorama beyond imagination. This was my dramatic introduction to unquestionable *Crocus vernus*. (I've heard that a similar colony thrives at Inkpen, Berks.) Yet this fond memory sorely misled me, for even by April 1981, I was still somehow not reconciling such a uniform small-flowered rural population with the many-and-variously-coloured large-flowered forms ubiquitous both in and out of urban cultivation. Surely they could not all be the same? But it seems they are. *C. vernus* sensu lato apparently comprises a confusing cluster of ecotypes, genotypes and all sorts of types, and, pending more detailed research, I guess we have to be broad-minded enough to accept them within the one species. Rix and Phillips (1981) illustrate five forms of which the cultivars 'Remembrance' (rich dark purple), 'King of the Whites' (pure white), and 'Pickwick' (very pale lilac with pattern of dark lines on back) are certainly the commonest in London. The original wild subspecies (the Warley plant) is illustrated on a separate plate. All flower from late February to early April in an average season. So the mystery of the purple crocuses is... solved?

Secondly, there was the mystery of the big bright yellow ones. Again they were common everywhere; again they were enigmatic. Almost as an anticlimax to decades of taxonomic frustration, I learned at last that they are simply called 'Golden Yellow'. And that's official. Some people call them 'Dutch Yellow' or 'Yellow Giant' instead. Mathew (1982) also confirms that they are *Crocus flavus* x *C. angustifolius* which is a much more satisfying epithet to have waited all this time for. They do vary, both in size and in the intensity of yellow pigment, although, with each plant being sterile, there is nothing like the same range of forms as is found in *C. vernus*. Stace (1991) describes *C. flavus* but refers to *C. flavus* x *C. angustifolius* and acknowledges its widespread occurrence. To date, all the plants I've seen naturalised in London fit this hybrid. Its normal flowering time is from late February to early April, but during a frost-free winter it may begin in January.

Crocus tommasinianus also took ages to learn. For years there were these 'slender pale mauve ones all over the place', and for years there were also these illustrations in nursery catalogues which looked kind of like... but nothing was ever certain. So I entered a well-known supermarket and bought a packet of bulbs with a pretty picture on it (to such depths must the scientific researcher plunge?). These bulbs knew exactly when and how to behave in my garden, and thus I eventually made personal acquaintance with the species. Elsewhere, I have since noted flowers of *C. tommasinianus* ranging from deep violet to snow white, although always with a clear white perianth tube. I have also been impressed by naturalised colonies of fair size, especially along shady, lightly wooded parkland verges where the soil is not heavily compacted. Again, weather permitting, the plants are at their best between early February and mid-March.

Crocus tommasinianus x *C. vernus* exists. This hybrid may be new to BSBI literature, but it is recorded by Mathew (1982), is a known constituent of commercial bulb mixtures, and is part of my own experience while exploring urban cemeteries. Though *C. tommasinianus* typically commences flowering two to three weeks earlier than *C. vernus*, there is enough overlap for cross-pollination to occur, so spontaneous introgression will occasionally be observed. Hybrids have a perianth intermediate in size, slightly broader than normal *C. tommasinianus*, slightly paler than normal *C. vernus*, and with a delicately blue-lilac tube. Whether they have any degree of fertility or not has yet to be ascertained.

Much greater taxonomic difficulties attend the variable *C. chrysanthus*, the even more variable *C. biflorus* and the whole profusion of artificial hybrids which have arisen between them. The colour differences between the species are a partial guide to their identification (Stace 1991). Various representative forms are grown in London; they all naturalise and they all flower between late February and mid-March, coinciding with the other taxa already mentioned. In the wild (South Europe and Turkey), *C. chrysanthus* and *C. biflorus* have different ecological preferences. They rarely grow together and spontaneous hybrids are uncommon (Mathew 1982). However the creation of hybrids in cultivation is well documented (Bowles 1924) and well illustrated (Rix & Phillips 1981); it centres upon the co-ordinated efforts of E.A. Bowles at Myddelton House, Enfield, Middlesex, and John Hoog at Zwanenburg Nurseries, Haarlem, Holland. Myddelton House is now the headquarters of the Lee Valley Regional Park Authority and the famous garden is in process of being restored to the horticultural haven cherished by its past owner. But only three miles southwards, by the old Church Lane in Tottenham, there lies a wide grassy strip where many of these same 'Bowles' crocuses (and others) have become sufficiently established to merit analysis in *BSBI News*.

On February 21st 1992, I revisited this remarkable site, together with Laura Andrew, natural history illustrator, and with David Bevan, conservation officer for the London Borough of Haringey. The annual panorama of crocuses was again impressive, although not quite as spectacular as when I first stared in stark bewilderment over fifteen years ago. They all look wild now. We don't know who planted the original bulbs, but we can begin to deduce what they are made of.

C. chrysanthus itself is represented by its pure yellow form, by two of the forms with dark linear 'bird's-wing' markings below ('Saturmus' and/or 'Gypsy Girl' - are these hybrids?) and, most numerous, by a pale cream form (probably 'Cream Beauty' which might also be a hybrid). The last is our commonest member of the *chrysanthus* or *chrysanthus/biflorus* group to be found as an escape in the London area generally.

The most obvious example of *C. chrysanthus* x *C. biflorus*, however, combines delicate shades of yellow from the former species with delicate shades of lilac from the latter. This rather dusky combination actually makes it one of the least showy forms present at Church Lane. It occurs as isolated individuals throughout the population, and it approximates to the Bowles plant called 'Advance'. Pure white flowered members of the group ('Snow Bunting?') may be albinos either of the hybrid or of either of the parents; we cannot decide which. Several dwarf purple and yellow bicoloured ones may also be of the same parentage.

Two very different forms of *C. biflorus* are evident and locally numerous. One has segments white above and conspicuously 'bird's-wing' pencilled in dark purple below; this is the subspecies *biflorus*, a relatively tall plant (to 20cm) with long tubes and leaves. The shorter, more compact one has broader and uniformly pale lilac segments and would fit either subspecies *adamii* or 'Blue Pearl' (syn. 'Blue Giant').

In all, more than ten varieties are distinguished within the *chrysanthus/biflorus* group at Church Lane (I use the term 'varieties' very loosely in this context). This is our understanding of them thus far, so there is considerably more clarification yet to be achieved. Other forms probably survive, and new ones are probably arising spontaneously from open-pollinated seed. The colony is further complicated by containing all three *C. vernus* cultivars quoted above, plus a number of 'Golden Yellows', plus a range of *C. tommasinianus* from strong dark violet to weak pale blue. We even found a small stand of *C. ancyrensis*, a fragile, purely yellow-flowered plant distinguished from stunted *C. chrysanthus* growth by virtue of its reticulately fibrose tunic. This contrasts strikingly with the tunics of members of the *chrysanthus/biflorus* group which are in varying degrees annulate; that is, the brittle papery outer skins which cover the bulb (onion-style) readily split into rings or crescents from the base upwards. Indeed, serious investigations into *Crocus* do necessitate some discreet recourse to a trowel, in order to observe the tunic characters, so we are particularly grateful for the permission granted by Haringey Parks Department to examine whole specimens in this way. We hope that the data now gleaned will help towards the interpretation and preservation of this

heart-warming and historic landmark within Tottenham's own 'greyest residential quarters'. Next year, we shall endeavour to study it further.

It is not only noteworthy but quite extraordinary to consider that, here in London, nearly all the crocuses I've discussed are capable of thriving and actually regenerating on urban earth which is so shoe-caked, dog-fouled and litter-strewn that even *Lolium perenne* may find itself (literally) hard-pressed to survive. So tender and ephemeral do these crocuses appear to be, so exotic and vulnerable, yet they hold their ground, year after year, exactly where most British weeds stand not a chance. Such success is made possible only by winter development, spring climax and summer dormancy. This rhythm protects each plant from facing the further stresses of heat, drought and competitive herbage. All the fertile species can reproduce both sexually and vegetatively in trodden ryegrass lawns, while *C. tommasinianus* seedlings are liable to become particularly invasive in disturbed soil. Sterile 'Giant Yellows' reproduce just vegetatively in the same conditions. However, studies at Church Lane in late Spring, 1991, revealed that members of the *chrysanthus/biflorus* group produce thousands of tiny seedlings amidst vigorous carpets of *Lolium* and *Poa*. There was no precise way to identify either parents or progeny. And only a few of the latter mature *in situ*.

By and large, *Crocus* fruits are scantily described; some authors don't mention them at all. Admittedly, their study is physically, even psychologically, rather effort-demanding. In mid-May, when all other vegetation is luxuriating rapidly, one first has to remember where the crocus flowers had been two months earlier. One then has to assume a relatively autumnal state of mind, kneel down in the developing grass, scrabble about for withering russet-brown foliage, and pick up the crisp little torpedo-shaped seed capsules which are formed almost or quite at ground level. When ripe, these capsules open into three lobes which spread horizontally, then arch downwards, each to reveal two rows of rather large seeds. Covered with a sticky sweet mucus, these seeds are no sooner dropped than carried away by ants eager for their own refreshment. Thus dispersed, they will, early the following year, germinate either with or soon after the re-awakening of their parents. And the whole cycle happens annually, if not abundantly, on those open city expanses conventionally disparaged as 'green desert'.

Of course, although I have monitored these plants more closely in London than elsewhere, most of them are grown and naturalised throughout the U.K. In rural areas their flowering seasons will be correspondingly later. But in all areas they may hopefully be appreciated as much for their botany and biology as for their beauty. For in some respects they have been surprisingly neglected. They also make the most superb herbarium specimens.

Again, I'd like to extend special thanks to the Haringey Parks and Conservation staff who legitimatised our gathering of those plants which Laura Andrew has so skilfully drawn for the front cover. It has given us a great deal of pleasure to introduce the new year with this lovely genus.

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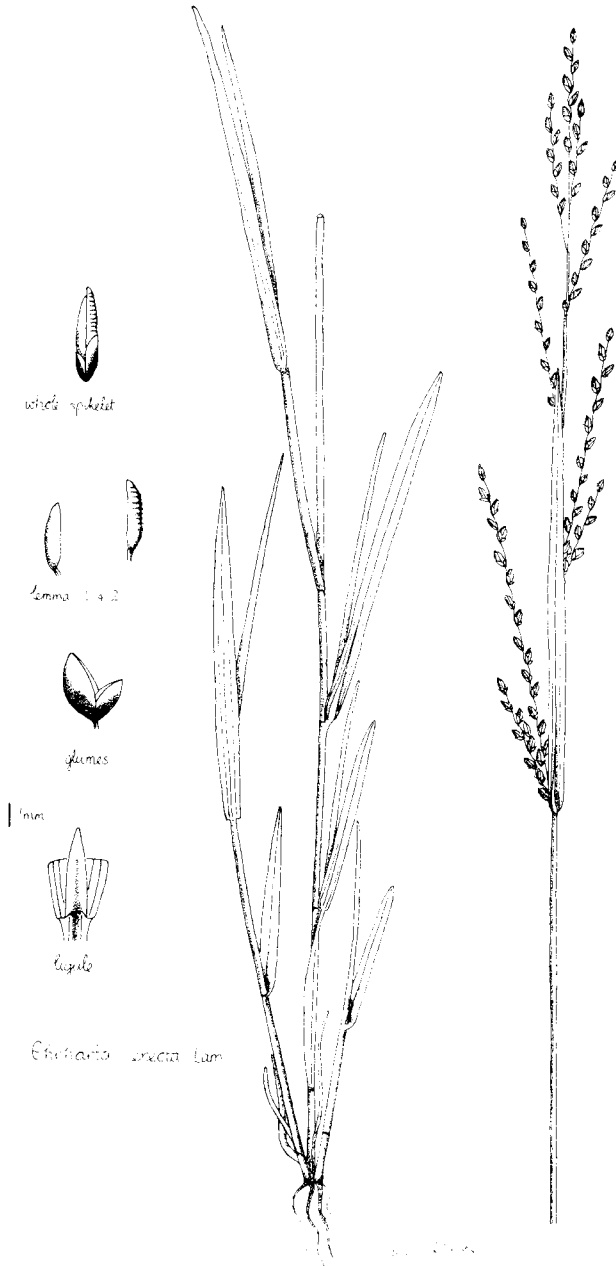
EHRHARTA ERECTA Lam. IN EAST SUFFOLK

On 29th August 1991, while on holiday staying with my parents in Woolverstone, East Suffolk (v.c. 25), I found some plants of the grass *Ehrharta erecta* in the garden of the next door house. The plants were growing at the base of the east-facing side of the house in the crack between the wall and the tarmac, which completely surrounds the house, along a length of about a metre. The only associated species was *Hordeum murinum* L.

Specimens were collected and sent to Eric Clement, who kindly confirmed the identification. Vouchers have been deposited in **BM** and in **Herb. E. & M. Hyde**. Mrs Hilli Thompson also generously agreed to draw the species.

The following description has been adapted from Lauenert (1971).

A variable perennial, which because of the slight rootstock may appear annual. Culms 40-100cm tall, geniculately ascending. Ligule 4-7mm, obtuse or truncate, often lacerate. Leaf



Ehrharta erecta Lam.

Ehrharta erecta Lam., del. Hilli Thompson © 1992

laminae 4-20 x 0.2-1.1cm, glabrous or very rarely scattered pilose, very narrowly lanceolate to linear, auricled at the base, the auricles with a dark-brown margin and scattered bristles. Panicle 6-20cm long, branches distant, unequal. Spikelets 4-5.75mm long (but see below), light green. Glumes unequal, the lower 3-3.6mm, the upper 3.5-4.5mm long. Florets 3, the lower 2 reduced to empty lemmas which are corrugated to a varying degree to completely smooth. Fertile lemma (the third) c.5.5mm long, 5-nerved.

E. erecta has a general appearance of a *Melica* or a *Poa*. The plants found at Woolverstone had the second lemma markedly corrugated and the spikelets were slightly smaller than the norm (2.8-3.8mm).

E. erecta is native to South Africa, extending northwards through East Africa to India. It is also naturalised in southern Europe, Australia and North America. Eric Clement adds that T.B. Ryves has recorded it from Britain as a shoddy alien but can trace no other records. This is the first Suffolk record.

How this plant arrived here is a mystery. At the time it was found, the house itself had been empty for many months, its garden neglected, apart from lawn-mowing and hedge-cutting. For this reason and because of its position in a crack, it seems unlikely that the grass was planted deliberately.

On the other hand, the species is included in Volume II of the *European Garden Flora* and in the Supplement to *RHS Dictionary of Gardening*. Although the grass appears to have little decorative appeal, horticultural origin is just possible. Eric Clement notes that Cambridge Botanic Garden were growing it in 1981 (Yeo & King 1981) but he knows of no nursery catalogue offering it.

A further possibility is that the grass was somehow accidentally introduced by the Hyde family from southern Africa. I have seen *E. erecta* in the Vumba mountains of Eastern Zimbabwe, where it is a native plant, but have never deliberately taken to Britain any material, either living or dried. The two houses are some 25 metres apart, which makes accidental introduction by the Hydes even less likely. A search was made of both gardens, but no further plants came to light.

I am very grateful to Eric Clement and Mrs Enid Hyde for their help in writing this note and to Mrs Hilli Thompson for the drawing which accompanies it (see page 39).

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BUPLEURUM ROTUNDFOLIUM AS A CUT FLOWER

You don't have to be dead to have a vase of *Bupleurum rotundifolium* (*BSBI News* 58: 39) - my wife had hers in the summer of 1990!

I ordered my seed in December 1989 from the 1990 edition of Thompson & Morgan's seed catalogue. *Bupleurum rotundifolium* - as the cv. 'Green Gold' - was listed (and illustrated) with a description which included the following:

"... It is a beauty of the border in sun or fairly shaded areas where its fashionable form and colouring are magnificent and it quickly yields abundant material for cutting and arranging."

Who could resist a description like that? And it proved to be justified.

I failed to save seed at the end of 1990 but it self-sowed (though not sufficiently to put it back on the British list!) and I had enough plants for cutting and seed saving in 1991.

As the species was new to me I took a specimen for my herbarium and also sent one, under the cv. name, to Eric Clement. His comment was: "... it looks like the normal wild form to me - rather than a cv."

Incidentally, *Bupleurum rotundifolium* is regularly on sale at the flower stall outside Charing Cross Station. On one occasion I also noticed bunches of an *Amaranthus* sp. similarly on sale - it looked very much like *A. retroflexus*. What will be the next unlikely find?

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AN OVERLOOKED ASH

One tree not mentioned in Professor Stace's excellent New Flora is the Narrow-leaved Ash, *Fraxinus angustifolia* Vahl. It looks very like our native ash, except that the buds are dark brown rather than black, and the leaflets are more coarsely toothed, so the number of teeth is about equal to the number of lateral veins. Like *Alnus incana* and *A. cordifolia*, *F. angustifolia* is quite hardy, and is a fashionable tree for new plantings in public parks. I have seen it near Poole, Dorset (v.c. 9) and at Reading, Berks. (v.c. 22), but it is probably much more widely distributed. Most trees are less than 20 years old.

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CABBAGE PATCH X

TAKING STOCK OF *MALCOLMIA* R.Br.

The discovery of three stocks (*Malcolmia* spp.) in Carlisle Museum, and the recent occurrence of *M. africana* at Askam (Rich & Halliday 1991), prompted a more detailed look at the *Malcolmia* species to Britain and Ireland than was possible for the BSBI Crucifer Handbook (Rich 1991). Due to the critical nature of this genus which contains a large number of species, specimens should be checked carefully. Of the six species of *Malcolmia* reported introduced to Britain and Ireland, only three have been confirmed. The following account has been compiled from Ball (1961, 1964), Davis (1965), Stork (1972), and herbarium material from **BM, CGE, CLE, E, HTN, K, LANC, LIV, NMW, OXF** and **SLBI**. The records seen for each species are listed, and the species are illustrated by Graham Easy (Fig. 1, page 42).

Malcolmia species can be similar in appearance to those of *Matthiola* R.Br., from which they can be distinguished by the valves of the fruit which have three veins (one-veined in *Matthiola*), and by the absence of lateral swellings or horns on the stigma; these characters may not always be easy to use.

Key to the species recorded from Britain and Ireland

- 1. Plant glabrous or with tubercules; lower leaves sinuate-pinnatifid 1. *M. crenulata*
- 1. Plant with medifixed, branched or stellate hairs; lower leaves entire or toothed
- 2. Petals (9-)10-25 mm; persistent style in fruit 2-6 mm 2. *M. maritima*
- 2. Petals 4-10(-12) mm; persistent style in fruit 0-2 mm
- 3. Fruits with appressed hairs; pedicels in fruit 2-10 mm 3. *M. chia*
- 3. Fruits with spreading and appressed hairs; pedicels in fruit 1-2 mm 4. *M. africana*

1. *Malcolmia crenulata* (DC.) Boiss.

This species is unusual in the genus in being tuberculate or glabrous but lacking medifixed and stellate hairs. The stem leaves may be slightly clasping and the basal leaves are deeply lobed. It occurs as a native in the Middle East (Turkey, Lebanon, Palestine, Syria, Iraq) and is found in fallow and cultivated fields, and the Syrean Desert.

VC 70. Silloth, Convalescent Institute, J. Leitch, 18/5/1890 (CLE).

VC 83. Slateford, rubbish heap, W. E. Evans, 7/6/1906 (E).

2. *Malcolmia maritima* (L.) R. Br. (*Wilckia maritima* (L.) Halacsy)

This plant is best separated from the other species by the long (2-6 mm) persistent style of the fruit and the large flowers with strongly saccate sepals, though dwarfed plants on dry soils can have small petals. It forms a complex with several other taxa (Ball 1961; Stork 1973) which have been extensively confused; it is possible that some of the other taxa may also have occurred as casuals but



Fig. 1. *Malcolmia* species recorded from Britain and Ireland. A-F, *M. maritima*. G-L, *M. chia*. M-S, *M. africana*. T-Z, *M. crenulata*. Scale bars are given for the whole plants, and for the details of flowers, stamens and gynoecium, petals and fruits. The persistent styles of fruits are enlarged, but not to scale. Del. G. Easy © 1992.

none have been seen in the limited herbarium material available. It is native in the Eastern Mediterranean but is widely introduced elsewhere, and appears to be the only species grown in gardens.

This is the species most likely to be encountered, and it is occasionally recorded in England and rarely in Scotland, Wales and Ireland as a non-persistent casual of waste ground, paths, tips, etc. We have seen records of specimens from the following vice-counties: 1, 3, 4, 5, 6, 8, 9, 10, 11, 13, 15, 16, 17, 18, 20, 21, 22, 23, 25, 27, 28, 29, 33, 34, 35, 41, 45, 46, 48, 50, 54, 55, 59, 62, 66, 70, 72, 75, 76, 77, 79, 80, 82, 83, 85, 95, 96, 99, 112, H38, S. No doubt it is under-recorded, being ignored as an obvious garden escape.

3. *Malcolmia chia* DC. (*Wilckia chia* (L.) Druce).

At first sight this species is not obviously different from *M. maritima* other than in its small size, but it has petals 6-10 mm, and fruits with pedicels 4-10 mm and a short (0.5-2(-2.5) mm) persistent style. It is related to *M. maritima*, *M. graeca* and *M. flexuosa*; intermediates with the latter are frequent. It occurs as a native in the Balkans (where Ball (1964) describes it from generally near the coast), Turkey (where Davis (1965) gives its habitats as rocky slopes, usually away from the sea), Cyprus and W Syria.

No specimens have been traced for the one record from VC 83, Edinburgh, J. Fraser, 1909 (*BEC Rep. for 1909* 2: 412), and it may be an error for small *M. maritima*.

4. *Malcolmia africana* (L.) R. Br. (*Wilckia africana* (L.) F. von Muell.).

This species has petals (5-)8-10(-12) mm, and fruits with very short pedicels 0.5-2 mm and spreading hairs. Dvorak (1970) placed *M. africana* and allied species into a separate genus *Fedtschenkoa* Rgl. There is as much to be said for this treatment as against it, and, if followed, *M. africana* would be called *Fedtschenkoa africana* (L.) Dvorak.

Probably native in S. Europe, NW Africa and SW Asia but widely casual elsewhere where it occurs as a weed on roadsides, waste places, etc. Interestingly, the majority of the records are from c.1900-1930.

VC 17. Wandsworth Steamboat Pier, A. Irvine, undated but probably collected between 1851 and 1859 (**K**; see also *Phytologist* 3: 330-350). Weed in newly sown grass, Kew Gardens, C. E. Hubbard 28/6/1932 (**K**).

VC 20. Ware, gravel, G. C. Druce, 8/1897 (**OXF**), 6/1912 (**BM**) and 1919 (**E**). Ware, A. W. Graveson, 23/7/1916 (**HTN**).

VC 24. Slough (Druce 1926).

VC 25. Oulton Broad, Mrs F. Baker, 1902 (**K**).

VC 30. Cinder track, Eastwoods Brickworks, Arlesey, J. E. Little, 15/5/1911 and 27/4/1914 (**BM**, **E**, **K**, **LIV**, **NMW**, **OXF**; see also *BEC Rep. for 1911*: 73).

VC 34. Casual on made ground, St. Phillips, Bristol. J. W. White, 6/1902; A fine plant on Portishead railway sidings, Miss I. M. Roper, 6/1907; Portishead railway sidings, Miss Hill, 1909 (White 1912). Portishead South, C. I. Sandwith, 1914 (Sandwith 1933).

VC 41. Splot, R. L. Smith & A. E. Wade, 20/5/1927 (**NMW**; see also *BEC Rep. for 1938* 12: 75).

VC 54. Grimsby Docks, A. Smith, c. 1900, det. at Kew (**LCN**, Gibbons 1975: 296). Boston Dock, G. C. Druce, 1913 (**OXF**).

VC 61. Hull Docks, C. Waterfall, 1902 (Wilson 1938). Waste ground, West Dock Reservation, Hull, C. Waterfall, 4/7/1903 (**BM**).

VC 63. Kirkstall, Yorks, E. C. Horrell, 1916 (**OXF**; see also *BEC Rep. for 1917*: 95).

VC 64. Lane dividing Hambleton Station and Scalm Park Farm, "on bare spots where manure has evidently lain in winter", herb. F. A. Lees, 3/8/1903 (**BM**).

VC 69. Askam Pier, G. Wilson, 24/6/1951 (**CLE**), and same locality, P. Burton, 1990 (**LANC**).

VC 83. Leith Docks, A. C. Christie, 30/6/1885, 13/6/1895 and 15/6/1898 (**E**); J. Fraser, 30/6/1903 (**E**; *Ann. Scot. Nat. Hist.* 13: 106-113), and 31/7/1907 (**SLBI**); W. E. Evans, 21/7/1903 (**E**). Leith, J. Fraser, 14/7/1906 (**E**). Slateford, J. Fraser, 9/1906 and 16/6 1905 (**E**); W. E. Evans, 31/5/1906 (**E**). Slateford, rubbish heap, R. S. Adamson, 25/6/1907 (**BM**).

VC 95. Shingle on R. Spey, Dailuaine, J. W. H. Trail, 8/1899 (*Ann. Scot. Nat. Hist.* 13: 104; oddly, this and other crucifer records were not included in Webster (1978), although other taxa cited in Trail's paper were).

VC H8. Limerick, casual (Praeger 1909).

Malcolmia ramosissima (Desf) Thell. (*M. parviflora* DC., *Wilckia parviflora* (DC.) Druce) is obviously different from the other species in having petals 4-8 mm, stellate hairs and fruits 15-35 mm with long (2-7 mm) pedicels, but both records traced are errors. The record for VC 20, Pye Corner, 1964 (Dony 1967) is an error for dwarfed *M. maritima* (HTN), and the record for VC 41, Splott, R. L. Smith, 20/3/1927 (*BEC Rep. for 1927* 8: 301) is an error (Ellis 1983) for *M. africana*. It occurs as a native around the Mediterranean to Portugal.

There is also a record for *Malcolmia littorea* R.Br. from VC 17, Wandsworth, A. Irvine, *Phytologist* (n.s.) 3: 334 (1859), but the record is given with a query. *Malcolmia africana*, *M. littorea* and *M. maritima* were reported to be "exceedingly common, appearing every year in great force", and *M. littorea* should have been easily distinguished from the other species by the dense, white tomentum. No specimens of *M. littorea* from this site have been traced and it is assumed to be an error (Leslie 1987), though for what remains unclear.

Acknowledgments

We wish to thank Frank Brightman, John Edmondson, Gwynn Ellis, Mike Foley, Serena Marner, Chris Preston and Brian Sawford for their help, the Keepers of **BM**, **CGE**, **CLE**, **E**, **HTN**, **K**, **LIV**, **NMW**, **OXF** and **SLBI** for access to or loan of specimens, and especially Graham Easy for his excellent detailed illustrations.

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ANTHEMIS AUSTRICA Jacq. AGAIN

With reference to the note by John Palmer on this species (*BSBI News* 59), I was sent a specimen by Mrs H. Lynes in June 1991 that she had found at Tenterden in Kent. A few days later I was in the area myself and had a look at the site, disturbed ground around a new shopping centre, that showed signs as though some seed had been sown to 'green' the area up. The 'jizz' was completely wrong for *Anthemis arvensis* L. to which the plant was provisionally placed (it keys out here in C.T.W. and the key in *BSBI News* 50). By consulting *Flora Europaea* vol. 4, the plant was correctly named as *A. austriaca* and I am yet again grateful to Eric Clement for confirming my identification.

A month later on some land leased to the Kent Trust for Nature Conservation I discovered a bank covered with *Agrostemma githago*, *Centaurea cyanus* and yet more *Anthemis austriaca*.* On

inquiry I was told that the Trust had purchased and sown 'native' wild flower seed to cover up some bare ground! So it looks as though the source of *Anthemis austriaca* could be from these native wild flower seed mixtures and members should check carefully any mayweeds found in areas managed by local authorities or the so-called conservation bodies.

*This lease has now come to an end, the site is now a temporary depot in connection with the widening of the motorway near Maidstone, and soil from the site including the seasons ripe seeds have now been distributed along a great length of the M20.

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CONSERVATION NEWS

CONSERVATION OF RARE PLANTS IN SCOTLAND: A PARTNERSHIP BETWEEN THE NATURE CONSERVANCY COUNCIL FOR SCOTLAND / SCOTTISH NATURAL HERITAGE AND THE ROYAL BOTANIC GARDEN EDINBURGH

With the recent division of the Nature Conservancy Council into three country conservation agencies (English Nature, Countryside Council for Wales and Nature Conservancy Council for Scotland) each agency is now responsible for co-ordinating its own rare plant conservation programme. In this respect the Nature Conservancy Council for Scotland and the Royal Botanic Garden Edinburgh have collaborated in a joint project concerning Scottish rare plants.

The main aims of the project are to increase our knowledge of the status and behaviour of rare plant populations and to collate existing information. Positive conservation measures will include seed collection for long term storage, experimental habitat restoration and, where appropriate, translocation trials. It is hoped that these positive measures will develop into a recovery programme whereby some rare plant populations will be enhanced.

The Royal Botanic Garden offers excellent facilities for education and it is planned to display a range of Scottish rare plants with educational labels, within the RBG, and hopefully to run a horticultural day school on aspects of rare plant conservation.

The project will rely on liaison and co-operation from many conservation organisations, research bodies and private individuals. I would be most grateful to hear from anybody who is either currently working on or who is interested in a particular rare species.

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CYPRIPEDIUM CONSERVATION - 1991 REPORT

The performance of the native plant was less successful in 1991 than in the previous year. This was due to a totally unexpected attack by voles despite regular checks and the removal of a voles nest from the cage earlier in the season. Several tall shoots were bitten through at ground level when the plant was in bud. The cut shoots were kept alive in water and produced two flowers which we were able to use for pollination. The rest of the plant produced three flowers which were pollinated.

The first of the laboratory raised plants grown at Kew by the Sainsbury Orchid Conservation Project have now been successfully returned to the wild site where there are also some naturally occurring seedlings, and all are progressing. However, it will be several years before any of the seedlings can be expected to flower as they are at a very early stage.

The committee once again urges people NOT to visit the site, which is very fragile, or to pass on the location to others. The number of visitors showed a slight decline again in 1991 and we thank members of the public for their cooperation.

MARGARET LINDOP, E.N. *Cypripedium* Committee, 36 Woodland Hill, Whitkirk, LEEDS LS15 7DG

NOTICES (BSBI)

CHANGES TO DATES OF FIELD MEETINGS IN 1992 YEAR BOOK

CRYMLYN FEN, GLAMORGAN (v.c. 41)

The date of this meeting was given correctly in the Calendar - July 19 - but incorrectly in the Field Meeting Programme - July 12.

STONEWORT MEETING, WICKHAM FEN

For personal reasons, the date of this meeting has had to be changed from July 18th to August 1st. The leader Nick Stewart is getting married on the 18th!

EDITOR

A.G. KENNETH BEQUEST

Archie Kenneth of Stronachullin, Argyll, died on 27 July, 1989. He was v.c. Recorder for Kintyre and had been a member of the BSBI for over 30 years. His contributions to Scottish botany and his endearing character are well recorded in the obituaries written for *Watsonia* by Allan Stirling and Peter Sell (1990).

Archie Kenneth bequeathed to the BSBI all his botanical correspondence and any sets or runs of botanical journals which his trustees should see fit to release. After discussion with the Kenneth family it was agreed that all Archie's botanical journals would be released and, in addition, all his herbarium specimens. It was also agreed that the correspondence and herbarium specimens would be housed at the Royal Botanic Gardens, Edinburgh, where staff are currently cataloguing the latter.

In addition, Archie's family have donated his botanical books for use by members of the Society in Scotland. We are grateful to the Scottish Wildlife Trust who agreed to house the books along with the main collection of botanical journals, in their library at Cramond House, Edinburgh, where they are now available for use by BSBI members. Each bears a stamp acknowledging the bequest.

The Kenneth family's bequest to the Society is most welcome and will ensure that Archie's many important and enthusiastic contributions to Scottish botany will be safeguarded for the future.

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MARION G.B. HUGHES & BERNARD H. THOMPSON, Ballymeanoch Cottage, Kilmichael Glassary, LOCHGILPHEAD, Argyll PA31 8QE

IRISH BOTANICAL NEWS

The second issue of *Irish Botanical News* has been recently published. It is sent free to all members living in Ireland or vice-county recorders for Ireland not resident in the country. If anyone thinks they qualify for a free copy and haven't received one could you get in touch with me immediately. Other members can obtain a copy by sending £1.50 to cover printing and postage costs to me at the address below. I still have a small number of copies of the first issue (gratis).

BRIAN S. RUSHTON, Department of Biological and Biomedical Sciences, University of Ulster, COLERAINE, N. Ireland BT52 1SA

NOTICES (OTHERS)

FUTURE MEETINGS OF THE BRITISH BRYOLOGICAL SOCIETY

29 July - 12 August. Summer Field Meeting, Lochinver and the Uists.

29 July - 5 August. Lochinver. Full details from the local secretary: Gordon Rothero, Stronlonag, Glenmassan, By Dunoon, Argyll PA23 8RA, tel. 0369 6281

5 - 12 August. The Uists. Full details from the local secretary: Dr Peter Pitkin, Nature Conservancy Council for Scotland, 2/5 Anderson Place, Edinburgh EH6 5NP, tel. 031 554 9797

26 - 27 September. AGM and Symposium Meeting, East Sussex. Full details from the local secretary: Dr David Streeter, Sussex House, Falmer, Brighton, Sussex BN1 9RH, tel 0273 678212.

As always, BSBI members will be most welcome at these meetings.

PHILIP LIGHTOWLERS, 8 Almark Road, LONDON E5 0RL

FLORA BRITANNICA

Flora Britannica is a major project to produce a cultural flora for modern Britain. A survey of those plants which are still important to us at the end of the 20th Century.

The aim is two-fold: to encourage a wide-ranging popular research programme at local level, and to produce a comprehensive but accessible book incorporating the results - *a definitive contemporary Flora*.

The author is Richard Mabey, the freelance writer and broadcaster and the project is being coordinated by the environment and arts charity, Common Ground, as part of their Local Distinctiveness Project

Flora Britannica will record popular plant names that are still current; games that children have made up for the new arrivals in our flora; which species are woven, carved or dyed with; and the places where colonies of plants still shape the local landscape and where the congregations made famous by poets and painters survive. It will include material about meadows, churchyards, woods, hedges, walls and landmark trees; weeds, fruits and poisons; edible wild species; and rituals, symbols and place-names associated with plants and trees.

The first stage will be the distribution among interested people at a local level a 32-page document, *The Handbook*, which will guide and inspire them to send in information about species in their area.

Flora Britannica will be based on the responses, and on large-scale grassroots involvement of both individuals and institutions (from conservation charities and natural history societies to schools).

The results will be gathered and processed over a period of 18 months. Field work will be carried out on particularly interesting research leads.

The Book will be extensively illustrated. It will cover the full native and naturalised flora (including trees and ferns, and excluding only lower plants such as fungi and lichens) of England, Scotland and Wales.

The achievement will be to initiate local floral audits done by people all over the country and to incorporate the results into a guide to plants which is up-to-date, culturally far-ranging, elegantly written and of immense importance.

The Handbook will be written by Richard Mabey, A5 in size and illustrated throughout in colour. Copies will be available free in the March issue of *BBC Wildlife Magazine* and after the 25th March 1992 for £1 (cheques made payable to BBC Magazines) from: The Flora Britannica Handbook, BBC Support Services, PO Box 7, London W3 6XJ.

Flora Britannica is supported by Common Ground, BBC Wildlife Magazine, the Countryside Commission, English Nature and Sinclair-Stevenson Publishers.

JOHN NEWTON, Common Ground, 45 Shelton Street, Covent Garden, LONDON WC2H 9HJ

[If any member is interested in receiving a free copy of *The Handbook*, please send a s.a.e to me at the National Museum of Wales. Ed.]

FIRST WORLD CONFERENCE PHYTOSOCIOLOGY AND NEGLECTED TERRESTRIAL SYSTEMS (PANTS): CALL FOR PAPERS

The 1st World Conference of PANTS is set to take place at St Helens, Lancs., during 1992 on dates to be announced.

Evidence that the remarkable endemic flora of St Helens has been virtually eliminated by the vegetation of the rest of the world, stems largely from the work of the Dutch school (see below).

The conference is expected to attract the attention of palynologists, palaeobotanists and plant geographers from the international community, and the conference plans to utilise multiple venues. Work on the centre at the old bottle works near Lyons Yard is well in hand. The commercial sector will be well represented and revolutionary core-sampling techniques in structureless sediments are expected to profile continuously the hitherto unrecognised raised beach at Burghy Banks.

Had it not been for Sykora (in di Castri, Hansen, and Debussche 1990) the importance of St Helens would have gone unnoticed. The following extract is from Sykora, p. 47:

"In some countries the flora is susceptible to such an extent that the native species have been totally ousted by invading species over extensive areas, within a few decades. The flora of extensive parts of Chile, for instance, largely consists of introduced species. In New Zealand two thirds of the land surface contain a flora very dissimilar from the original flora; the majority of introduced species being European pasture plants. The flora contains 1700 (58.6%) alien species (Moore 1983). Half of the Hawaiian plant species, 90% of which are endemic, is endangered by exotics. In this way many species disappeared from St. Helens (Great Britain)."

References

- Moore, D.M. 1983. Human impact on island vegetation. In: Holzner, W., Werger, M.J.A., Ikusima, I. (eds.) *Man's impact on vegetation*. Junk, The Hague, pp. 237-246.
- Sykora, K.V. 1990. History of the impact of man on the distribution of plant species. In: di Castri, F., Hansen, A.J., Debussche, M. (eds.) *Biological invasions in Europe and the Mediterranean Basin*. Kluwer. pp. 37-50.

P.F. WHITEHEAD, Moor Leys, Little Comberton, PERSHORE, Worcestershire WR10 3EH

REQUESTS

RESEARCH INTO *LEMNA MINUTA* AND *AZOLLA FILICULOIDES*

Considering the interest in *Lemna minuta* Kunth (*L. minuscula* Herter) (Least Duckweed) and *Azolla filiculoides* Lam. (Water Fern) as alien invaders of Britain (*BSBI News* **46**, **56**, **58**), members may be interested to know of my research into the biology and spread of these two species as weeds. I am working at Liverpool University on a PhD project jointly funded by the Science and Engineering Research Council and British Waterways, who are especially concerned with the weed problems which these plants are causing on the Kennet and Avon Canal. I would appreciate any further records of these plants from anywhere in the U.K., especially if they are causing weed problems, and any comments on their occurrence and persistence would be useful.

RACHEL JANES, Department of Environmental and Evolutionary Biology, Nicholson Building, University of Liverpool, P.O. Box 147, LIVERPOOL L69 3BX

AGROSTIS CANINA L.

I am working on some biological aspects of *Agrostis canina* (Velvet Bent) in Italy and would welcome some seeds from Britain and Ireland for my research. If you are able to help, please send the seed samples together with details of locality etc. to the address below. All help will be very much appreciated.

FRANCO MIGLIETTA, I.A.T.A. Istituto di Analisi Ambientale e Telerilevamento applicati all'agricoltura, Piazzale delle Cascine, 18 - 50144 FIRENZE, Italy

BOOK NOTES

Reviews of the following books will be included in the August 1992 issue of *Watsonia* vol. 19(2):

- Wild Plants of Glasgow. Conservation in the City and Countryside.* J.H. Dickson. Pp. 208; 29 colour photos & 22 colour plates. Aberdeen University Press, Aberdeen. 1991. Price £14.95 (ISBN 0-08-041200-9).
- The Wild Flowers of Luton.* J.G. & C.M. Dony; edited by C. Boon. Pp. 64; full-spread colour map between pp. 32 & 33. J.G. Dony, Luton. 1991 (no ISBN). Price £3.50 incl. postage from P. Ellison, 90 Beverley Road, Ruislip, Middx., HA4 9AS.
- Wild Orchids of Dorset.* M.N. Jenkinson. Pp. 120; 65 colour plates, numerous distribution maps and figures. Orchid Sundries, Ltd., Stour Provost. Price £17.95 h/b (ISBN 1-873035-01-2); £13.95 p/b (ISBN 1-873035-02-0).
- Atlas Florae Europaeae*, vol. 9. *Paeoniaceae to Capparaceae*. Edited by J. Jalas & J. Suominen. Pp. 110; 155 distribution maps. Committee for Mapping the Flora of Europe & Societas Biologica Fennica Vanamo, Helsinki. 1991. Price FIM 350 approx. (ISBN 951-9108-08-4).
- The Chelsea Gardener: Philip Miller 1691-1771.* H. Le Rougetel. Pp. 212; ill. Natural History Museum Publications, London. 1990. Price £14.95 (ISBN 0-565-01101-4).
- Shamrock.* E.C. Nelson. Pp. xiv + 200; 76 figures, 5 col. plates. Boethius Press, Aberystwyth & Kilkenny. 1990. Price £26 h/b (ISBN 0-86314-200-1), £12 p/b (ISBN 0-86314-199-4).
- The Burren: a companion to the wildflowers of an Irish limestone wilderness.* E.C. Nelson; illustrated by Wendy Walsh. Pp. [viii] + 344; numerous col. plates. Boethius Press, Aberystwyth & Kilkenny, and the Conservancy of the Burren, Ballyvaghan. 1991. Hardback ISBN 0-86314-213-3, paperback ISBN 0-86314-214-1). Available from An Bothain, Pier Road, Ballyvaghan, Co. Clare, Ireland.
- The Northwest European pollen flora*, vol. 6. Edited by W. Punt & S. Blackmore. Pp. [v] + 275; 103 b/w plates. Elsevier, Amsterdam. 1991. Price D.fl. 240 (ISBN 0-444-89164-1).
- New Flora of the British Isles.* C. Stace. Pp. xxx + 1228, with numerous text figures and 2 maps on end-papers. Cambridge University Press, Cambridge. 1991. Price £24.95, soft plastic cover (ISBN 0-521-42793-2).
- Pleistocene palaeoecology of central Norfolk.* R.G. West. Pp. ix + 110; 44 figures. Cambridge University Press, Cambridge, 1991. Price £40 (ISBN 0-521-40368-5).
- The following publications have been received recently. Those that will not be reviewed in *Watsonia* are marked with an asterisk; the notes are by J.E.
- **Atlas corologic de la flora vascular dels paisos Catalans*, vol. 2, edited by O. de Bolos & A.M. Romo. Unpaginated, with 306 maps and accompanying text. Institut d'Estudis Catalans, Barcelona. 1991. Price not stated (ISBN 84-7283-175-2). [Distribution maps on a 10km² U.T.M. grid, covering the Catalan part of mainland Spain and the Balearic islands.]
- Also from Catalonia, **Vegetacio de Catalunya; Descoberta* vol. 1, by J. Nuet i Badin, J.M. Panareda i Clopes and Angel M. Romo i Diez. Pp. 153; ill. Eumo Editorial, Vic. 1991. Price not stated (ISBN 84-7602-753-2). [Pocket-book sized volume giving a succinct summary of the main categories of vegetation in Catalonia; nicely printed.]
- **Phytogeography and vegetation ecology of Cuba.* A. Borhidi. Pp. 860 + [16], with 380 figures and 16 colour plates. Akademiai Kiado, Budapest. 1991. Price Ft. 1,030 (ISBN 963-05-5295-7). [This book is the culmination of over 25 years' study of the Cuban flora, and encompasses vegetation mapping, phytosociology, studies of geographical distribution and endemism. A

critical Flora is also in preparation. This book fills a major gap in the botanical literature for the Caribbean, and while not the kind of tome one would take on holiday, it paints a very attractive picture of the Cuban flora.]

**A world of ferns*. J. Camus, A. C. Jermy & B. A. Thomas. Pp. 112; fully illustrated with colour photographs. Natural History Museum Publications, London. 1991. Price £10.95 (ISBN 0-565-01120-0). [Attractively presented account of the ferns and fern-allies, featuring their biology, global ecology and economic value, including gardening.]

Practical Taxonomic Computing. R. J. Pankhurst. Pp. xii + 202. Cambridge University Press, Cambridge. 1991. Price £24.95 (ISBN 0-521-41760-0).

Legumes of West Asia. A check-list. J.M. Lock & K. Simpson. Pp. xi + 263. Royal Botanic Gardens, Kew. 1991. Price £15 (ISBN 0-947643-29-X).

**Introduction to the principles of plant taxonomy*, 2nd edition, by V.V. Sivarajan; this edition edited by N.K.B. Robson. Pp. xiv + 292. Cambridge University Press, Cambridge. 1991. Price £40 h/b (ISBN 0-521-35587-7); £15.95 p/b (ISBN 0-521-35679-2). [Few modern textbooks cover plant taxonomic principles; this is a worthy example of the *genre*. Written by an author who has scanned a wide range of literature, and meticulously edited by Norman Robson, the book offers a thoughtful commentary on current taxonomic theories. The paperback version is inexpensive.]

**Proceedings of the 7th international palynological congress*. Truswell, E.M. & Owen, J.A.K. (eds.). Pp. viii + 391; illustrated. Reprinted from *Review of Palaeobotany and Palynology* vols. 64 & 65, Elsevier, Amsterdam. 1990. (ISBN 0-444-88624-9). [A collection of scholarly papers delivered in Brisbane in 1988.]

**Vegetation of New Zealand*, by P. Wardle. Pp. xx + 672; ill. Cambridge University Press, Cambridge. 1991. Price £105 (ISBN 0-521-25873-1). [Comprehensive treatment of the terrestrial vegetation of New Zealand and its outlying islands, comparable with that of N.C.W. Beadle for Australia, and the first to be published since Cockayne's classic work of 1928.]

The History of British Pteridology 1891-1991, edited by J. Camus. Pp. 127. British Pteridological Society, London. 1991 (ISBN 0-9509806-3-3).

Correction: Martin Sanford's *Orchids of Suffolk* is priced at £12, not £15 as given in *Watsonia* 19: 50, 1992. Apologies to Martin for mis-spelling his name.

JOHN EDMONDSON, Botany Dept., National Museums & Galleries on Merseyside, Liverpool Museum, William Brown St, Liverpool L3 8EN.

REPORTS OF FIELD MEETINGS - 1991

Reports of Field Meetings are edited by, and should be sent to, Dr B.S. Rushton, Dept. of Biological and Biomedical Sciences, University of Ulster, Coleraine, Co. Londonderry, N. Ireland BT52 1SA.

To save space the map has been omitted this time.

ENGLAND

AXBRIDGE, MENDIP HILLS, N. SOMERSET (v.c. 6). 9th JUNE

20 members met to explore the south-facing slopes of the Mendips above the village of Axbridge in Somerset. The Mendip Hills are composed of Carboniferous Limestone overlying Old Red Sandstone. Most of the route taken lay within the Crooks Peak, Shute Shelve and Fry's Hill SSSI which is species-rich calcareous grassland with rocky outcrops, ancient woodland and scrub.

The first stop was a splendid road cutting where a good range of limestone plants could be seen in a very small area. *Ophrys apifera* was frequent here and several had florets with an unusual pointed lip. Much emphasis was placed on identification of the grasses during the day and great interest was shown in *Poa angustifolia* growing with *Festuca rubra* and *Bromus erectus*.

On climbing the steep slopes of the tightly grazed common land of Shute Shelve Hill, the sward was successfully searched for *Trinia glauca*, a very local plant near the easterly limit of its range on the Mendips. *Koeleria macrantha* and *K. vallesiana* were growing here with possible intermediates. The group were soon identifying the very felted sheath-bases of *K. vallesiana* and particularly good specimens were found amongst rock outcrops where the soil was thin and bare. *Erodium maritimum*

was also found in this habitat, this hillside being a long standing location for this normally coastal plant.

The party made its way across allotments where *Bromus diandrus* and *B. x pseudothominii* (*B. hordaceus* subsp. *hordaceus* x *B. lepidus*) were growing together in a neglected plot. Here also was a tall, multi-stemmed *Orobancha minor* var. *minor* growing from the centre of a huge *Medicago arabica* and *Fumaria capreolata* was 'ramping' through the allotment hedge.

Potentilla tabernaemontani was abundant on the open slopes of Fry's Hill, some plants still flowering. On the open stony slopes, several small creamy-white flowered Bedstraws were carefully examined in situ and much discussion took place regarding the differences between *Galium pumilum* and *G. fleurotii*. No positive identification was reached. A small area of limestone heath was noted before the party descended from the hill to see a magnificent display of *Lithospermum purpurocaeruleum* with its stunning blue flowers.

The non botanical interest of the day was a huge Wood-ant's nest in an otherwise empty tin shed, and the expensive computer that was left in the car of a BSBI member in the busy car park, with the door wide open and was still there at the end of the day!

Special thanks to Mr and Mrs Scott, for access to Fry's Hill and P.J.O. Trist, Fred Rumsey, Ron Payne and Bill Tucker for identification of species.

ELIZABETH J. McDONNELL

SUTTON PARK, WARWICKSHIRE (v.c. 38). 22nd JUNE

A small party (six members only) participated in this further visit by the Society to this remarkable SSSI now within the bounds of the city of Birmingham but whose origins date from Henry VIII's time, when in 1528 Bishop Vesey procured a charter granting the park to the Royal Town in perpetuity.

The wetland of Longmoor Valley was visited, with its rich variety of bog and marsh plants - *Dactylorhiza majalis* subsp. *praetermissa*, *Pinguicula vulgaris*, *Potentilla palustris*, several *Carex* species and the rare willow *Salix cordata* (see *BSBI News* 56: 25 (1990)) - to name but a few, the only regret being that our time there was of necessity so limited. In other parts of the park *Drosera rotundifolia* was seen and a number of ericaceous species, including *Vaccinium oxycoccos*, one of the 20 or so species found nowhere else in the vice-county but in Sutton Park.

Members might like to know that *Part 1 (The Vascular Plants) of a Natural History of Sutton Park*, by Dr Peter Coxhead and myself, has been published recently and may be obtained from me at a cost of £2.00 plus £0.33p postage from H.H. Fowkes, 2 Middleton Road, Sutton Coldfield, West Midlands B74 3EU.

H.H. FOWKES

KINVER, STAFFORDSHIRE (v.c. 39). 23rd JUNE

Under a sky threatening rain, our party of 15 assembled at the base of Kinver Edge. Bunter sandstone dominates this area. We set off westwards along narrow lanes. Under *Fagus sylvatica* and *Malus sylvestris*, a naturalised patch of *Convallaria majalis* existed in deep shade. The lush verge grasses had been cut a few days earlier, but a roadside spinney had specimens of *Robinia pseudoacacia*, *Quercus ilex* and *Prunus lusitanica*. A nearby arable border revealed *Urtica urens* and *Lamium amplexicaule*. An unlikely site for a large *Populus nigra* s.s. was seen in the middle of a sloping arable field, where a small spring issued from near the base of the tree.

We now turned off the road into old woodland that overlies Grey Clay of the Upper Coal Measures. Two lofty trees of *Sorbus torminalis* were shown on the way to a shady wet area supporting *Carex strigosa*, *Equisetum telmateia* and lots of *Carex pendula*. A little further, on higher ground, we went through the site of *Epipactis purpurata* found here in 1972, care being taken to avoid emerging shoots of the plants. Fine drizzle descended as we made for a species rich meadow for lunch, where an increasing colony of *Dactylorhiza majalis* subsp. *praetermissa* occupied both sides of a small stream.

Continuing through a cornfield with *Lolium multiflorum* and *Trifolium hybridum*, we regained the road. Here *Bryonia cretica* subsp. *dioica*, *Galium mollugo* subsp. *mollugo* and *Cruciata laevis*

were much in evidence as we made our way to the foot of the Edge. A notable clump of *Spiraea salicifolia* s.s. was in bud near to a flat heathy area with *Calluna vulgaris*, *Ornithopus perpusillus*, *Aphanes arvensis* and a clump of *Carex spicata*.

Scrambling up the steep western scarp of Bunter sandstone passing the caves of Nanny's Rock, we reached the summit (161m), where a splendid view of surrounding countryside presented itself in the brief sunshine. A small diversion to see *Corynephorus canescens* found the inflorescences just emerging, the glaucous tufts of the species being evident in all stages of development. Wind and drizzle set in as we made for the Toposcope; well-trodden ground here supported *Sagina apetalata*, *Trifolium striatum* and *Aphanes microcarpa*. After a quick inspection of the long abandoned rock houses of Holy Austin Rock we descended to the vehicles.

B.R. FOWLER

NORTH LINCOLNSHIRE (v.c. 54). 29th - 30th JUNE

Ten members attended the Lincolnshire weekend meeting. Three venues were chosen - Messingham Sand Quarries near Scunthorpe, Crowle Waste in the Isle of Axholme and Gibraltar Point near Skegness, on the coast - all three sites being reserves of the Lincolnshire Trust for Nature Conservation and the latter also a National Nature Reserve.

After an early wet June, the weekend was hot and sunny. At Messingham over 9000 *Dactyloctenium aegyptium* subsp. *praetermissa* spikes provided a blaze of colour and good stands of *Pilularia globulifera* were seen. *Littorella uniflora*, *Anagallis tenella*, *Carex rostrata*, *Descurainia sophia*, *Hypochoeris glabra* and *Schoenoplectus lacustris* subsp. *tabernaemontani* were noted as were small plants of *Gentiana pneumonanthe* (the latter 'caged' owing to the rabbit problem!).

At Crowle the highlight was *Rhinanthus angustifolius* growing over 1km of track and spreading each year. *Andromeda polifolia* and *Vaccinium oxycoccos* were searched for successfully, the latter in full flower and extensive. The first section of the reserve was remarkable for the fine very large plants of *Eriophorum vaginatum* and *Molinia caerulea*. *Carex curta* was abundant in both sections.

Gibraltar Point, on the very sunny Sunday, produced its usual range of coastal plants. *Parapholis incurva* was much more plentiful this year and found in more sites than had previously been noted. *Frankenia laevis* had also spread over large areas of the marsh. Both *Limonium vulgare* and *L. binervosum* were coming into flower. The shrubby *Suaeda vera* at its northern limit was found in several spots and a swarm of seedlings of *Glaucium flavum* - rare with us - was shown to the group.

My thanks are due to the Lincolnshire Trust for their hospitality (freshly baked scones and coffee) at the Field Centre; also to their warden who accompanied us at Messingham, Mrs V. Wilkin, and to fellow BSBI member Mr W.M. Peet, author of the Gibraltar Point booklet and Checklist, for his help with the meeting.

IRENE WESTON

HENGISTBURY HEAD, DORSET (v.c. 11). 13th JULY

27 members booked for this *Rubus* meeting, impressive evidence of how fashionable the study of this group has now become. Though a few failed to materialise on the day, doubtless deterred by the early heavy rain, the party that assembled by the car park was still larger by two than that at the comparable *Rubus* meeting on Southampton Common in 1989. Though this time there was no North of England contingent, the West Country was powerfully represented in its place.

Miraculously, the rain stopped just before the start and held off all the rest of the day; but it was disappointing even so that the clouds lay so low that it was scarcely possible to discern a yacht, much less see across Christchurch Harbour. In compensation, though, the headland was bereft of its usual weekend crowds and we had it virtually to ourselves.

21 named species were seen and demonstrated, including Hengistbury's two specialities, *Rubus boudicca* and *R. purbeckensis*, both of which occur here in some profusion. Others characteristic of the Bournemouth area, which many were equally keen to see, included *R. bloxamii*, *R. boulayi*, *R. curvispinosus*, *R. melanoderms*, *R. mucronatiformis* and *R. pullifolius*. *R. incurvatus*, discovered

here three years before in its second extant v.c. 11 station, appeared to be spreading, as did '*R. holmesleiensis*', a very distinct undescribed bramble otherwise known only in the New Forest's south-west corner. *R. pyramidalis*, on the other hand, bore no panicles and one or two other recorded species could not be relocated.

At the close of the meeting a group went to inspect *Polygonum maritimum*, recently detected nearby, while some of the batological 'cognoscenti', not yet suffering from mental overload, drove on to see certain of the other *Rubus* spp. in which the area is specially rich.

D.E. ALLEN

NORFOLK AND SUFFOLK BORDERS (v.cc. 25-28). 13th-14th JULY

17 members and guests participated in the meeting which afforded an opportunity to examine four contrasting sites. The first morning was spent on Wortham Ling (v.c. 25), an area of acid heathland containing isolated patches of alkaline soils. The Ling is common land which has recently been designated an SSSI and is managed by the Suffolk Wildlife Trust (SWT). Two basic areas were visited, the first yielding *Cirsium acaule*, *Arabis hirsuta*, *Ophrys apifera*, *Thymus pulegioides*, *Avenula pubescens* and *A. pratensis*, while the second contained many plants of *Filipendula vulgaris*, some, in the damper parts, growing mixed with *F. ulmaria*. Only a few metres from these grew *Festuca tenuifolia*, *Nardus stricta* and *Teesdalia nudicaulis*. The wet June had favoured several annuals, including *Trifolium micranthum* and *T. glomeratum*, two of 17 additions made to the 295 species recorded on the Ling during 1989 and 1990.

After lunch the party moved to Redgrave and Lopham Fen, an extensive area of valley fen straddling the River Waveney just east of its source. The Fen is a National Nature Reserve managed by the SWT even though most of it lies in Norfolk. A major management problem is maintaining the level of the water table which has fallen dramatically in recent years, partly because of shrub invasion and also as a result of water extraction by the East Anglian Water Company from a bore-hole adjoining the Fen. However, characteristic fen plants including *Cladium mariscus*, *Juncus subnodulosus* and *Potamogeton coloratus* were seen while the river contained *P. crispus* and *P. pusillus*. A few members could recall the Fen in the 1950s when the flora was vastly richer, but we still managed to find *Anagallis tenella*, *Gymnadenia conopsea* subsp. *densiflora* and *Carex pulicaris* surviving in an area where *Drosera rotundifolia*, *D. intermedia* and *Pinguicula vulgaris* had flourished less than 20 years ago. Our 3km walk round the Fen had taken us through four vice-counties.

In the evening some members attended Thornham Field Centre at Thornham Magna where laboratory facilities were available for us to examine finds of the day over coffee.

On the morning of the 14th we visited Chippenhall Green, near Cratfield (v.c. 25) which is still grazed by untethered animals. The Green is important for its large population of *Orchis morio*, some fruiting specimens of which were still visible in places. In total we recorded 144 species here including *Trifolium micranthum* (again), x *Festulolium loliaceum* (*Festuca pratensis* x *Lolium perenne*) and *Glyceria* x *pedicellata* (*G. fluitans* x *G. plicata*).

The meeting concluded at East and West Harling Heaths (v.c. 28) on Sunday afternoon. Here, in forest rides, were many Breckland specialities including *Veronica spicata* subsp. *spicata*, reintroduced in a controlled planting programme undertaken from the Cambridge Botanic Garden in 1989. Several flowering plants were seen so the experiment is succeeding, at least in the short term. Additionally we found *Medicago minima*, both subspecies of *M. sativa* and fertile hybrids between them, *Apera interrupta*, *Phleum phleoides*, *Silene conica* (in fruit), *S. otites* and *Crassula tillaea*, while commoner species such as *Papaver rhoeas*, *Anthemis arvensis*, *Crepis capillaris*, *Malva moschata* and *Scabiosa columbaria* provided colourful evidence of the beauty and diversity of the Breckland flora.

The leaders would like to thank the Suffolk Wildlife Trust for granting us permission to visit Redgrave and Lopham Fen Reserve and for their cooperation at Wortham Ling. Additionally we thank the Director of Thornham Field Centre for opening the Centre to us on Saturday evening.

A. COPPING

POVINGTON RANGES, DORSET (v.c. 9). 14th JULY

The Army ranges at Povington, lying south of Wareham and Wool and east of Lulworth form a very large block (30km²) of unimproved heath and grassland. As only a narrow band of Tertiary clay separates the chalk of the coastal strip from the heath, the calcareous influence is marked, especially as chalk waste has been used for railway and road works. Almost all the area traversed on the meeting has been in Army control since World War I, although grazing takes place everywhere other than on the heath. The whole area has a rich flora and fauna redolent of pre-war days; indeed the species recorded by Professor Good in the 1930s are still largely present.

Starting near the east of Lulworth the party made their way to a good bog below Thornbarrow. Here regular shelling has maintained open pools with *Drosera anglica* (in one of its nine Dorset sites), *Pinguicula lusitanica*, *Schoenus nigricans*, etc. Nearby a new railway track has brought in *Lotus tenuis*, *Geranium columbinum* (rare in Dorset), *Linum bienne* and swards of *Filago vulgaris* and *F. minima*. Further east the clayey fields produced *Oenanthe pimpinelloides* and *Carex disticha*.

Lunch was taken above a superb bare heathy bog with *Lycopodiella inundata*, *Carex hostiana*, more *Pinguicula* and the rare Water Scorpion. On the clayey bank above, *Hypochoeris glabra* was found in quantity. Further north towards Hurst Mill a fenny area was explored, yielding *Veronica scutellata* on the fringes, and a mass of *Carex disticha* and *Juncus subnodulosus* with a few plants of *Carex lepidocarpa*, in the centre.

From here, via several deep ditches, two good hay meadows were visited, with frequent *Sanquisorba officinalis* and a mass of other colour before the long walk home. A detour was made to Pool Pond where only two of the party followed the leader's example to wade out for *Apium inundatum*.

Our thanks are due to the Royal Armoured Corps for consent to enter the ranges, and in particular to Major Mick Burgess and his staff for enthusiastic organization.

D. PEARMAN

CROYDON, SURREY (v.c. 17). 20th JULY

This was a joint meeting with the London Natural History Society. Two sites were chosen to be reasonably near each other and a station from which participants could be picked up by car. The morning site was Kenley Common, where the richest habitat, a zone of sloping chalk grassland, has been rescued from scrub invasion by the good management of the Corporation of London. We were shown round by Andrew Scott who pointed out its special features, which include abundant *Rhinanthus angustifolius* and a strong patch of *Hypericum maculatum*. The *Rhinanthus* was apparently introduced accidentally from another well-known colony, and now occurs on all mown parts of the Common, though abundant only on the calcareous part.

After lunch at Selsdon Wood car park (from which some members walked a little way up the road to admire *Verbasum lychnitis*), we went to the grounds of Hall Grange, Shirley, by kind permission of the Methodist Homes for the Aged. We were conducted round by the Matron Mrs Parke, the head gardener Mr Griffiths and Mrs Lucy Rogers who has studied the site at intervals since 1983. This was originally the informal garden of The Wilderness, created in 1913 by William Wilks, then secretary of the RHS. Since it was described by Deirdre Clenet in the *London Naturalist* 64: 23-25 (1985), storms have damaged the wooded parts. Wilks worked by planting often native species into the existing meadow, and it is now very difficult to know what was introduced by him deliberately (*Erica vagans*) or accidentally (*Polygala serpyllifolia* along with *Calluna vulgaris*?), what was part of the original vegetation (*Carex otrubae*?) and what has come in since by its own devices (*Dactylorhiza majalis* subsp. *praetermissa*?, *Gymnocarpium dryopteris* discovered on a rocky probably created for the subsequent owner?).

It is interesting to compare the results of throwing a party of 19 at two such different sites. At Kenley, a large area which has been investigated professionally, only two species, *Orobanche minor* and *Hordeum secalinum*, could confidently be added to the flora. The second much smaller site has been explored only occasionally, and here we added a score of names to the 'wild' flora, including another patch of *Hypericum maculatum* in a more typical site on clay.

R.M. BURTON

FELMERSHAM GRAVEL PITS, BEDFORDSHIRE (v.c. 30). 27th JULY

Superb weather greeted the members who ventured into deepest Bedfordshire to visit the Felmersham Gravel Pits reserve of the Bedfordshire and Cambridgeshire Wildlife Trust. The site, of some 20ha, was formed during the last war by the extraction of gravel for concrete runway construction on local aerodromes and is situated near the River Ouse. In addition to the aquatic habitats there are also grassland and woodland habitats with characteristic flora. The diversity of the site is clearly indicated by the list of 216 plants recorded on the day. With seven sharp-eyed BSBI members and three local naturalists, 28 of these were new site records, including eight new tetrad records and two new county records.

The two most obvious plants seen first were large stands of *Schoenoplectus lacustris* and, abundant over much of the open water, *Myriophyllum verticillatum*. Along the water's edge were plants such as *Juncus subnodulosus*, *Lysimachia vulgaris*, *Oenanthe fistulosa*, *Rorippa amphibia*, *Scutellaria galericulata* and *Typha angustifolia*. In one spot was the only county site, albeit introduced, for *Menyanthes trifoliata*.

The water was investigated with the late John Dony's drag line, kindly given to me (CRB) by Chris Dony, and it proved its worth. We were able to compare *Myriophyllum spicatum* with *M. verticillatum* and also retrieve a *Potamogeton* which proved to be *P. berchtoldii*, confirmation of an old record. A main feature of the reserve is *Utricularia australis* which is abundant and was in flower. The first new county record was *Stratiotes aloides*, no doubt another introduction, but it appeared to be well established. The other new record was a vegetative piece of *Myriophyllum*, found by Graham Kay. Subsequent study suggested *M. aquaticum* which has been confirmed.

Away from the aquatic habitat the very showy *Lathyrus latifolius* was much in evidence and also one late flowering spike of *Ophrys apifera* var. *trollii*. In the wooded area *Daphne laureola*, *Epipactis helleborine* and *Asplenium scolopendrium* were good to record.

A rewarding day's botany was enjoyed with the added attraction of eleven different species of dragonflies and damselflies, 14 different butterflies and eight moths. In addition, interesting bryophytes and fungi were also found.

C.R. BOON & A.R. OUTEN

IRELAND

NORTH AND SOUTH TIPPERARY (v.cc. H10 & H7). 29th-30th JUNE

The same seven (including the vice-county recorders, the real Lady Ro Fitzgerald and two Welsh members) attended on Saturday and Sunday. There was a little confusion, as the meetings on both days took place in the administrative South Riding of Tipperary. The recorders amicably agreed to adhere to Praeger's ruling that the railway line from Portlaoise to Limerick Junction should be the border!

On Saturday the Annacarty wetlands north of Dundrum were visited. Three sites were investigated, all within 2km of each other. Each had a different pH and were at different stages of succession. Maudemount bog was the largest, and the most treacherous, with floating vegetation made more deceptive by a recent lowering of water level. In spite of a couple of mild suicide attempts, all safely made the rendezvous for lunch. At least 14 species of *Carex* were recorded including *C. diandra*, *Cladium mariscus* was plentiful along with *Equisetum variegatum*. In the open water *Potamogeton coloratus* and *Chara aculeolata* were discovered. *Galium uliginosum*, *Epipactis palustris* and *Dactylorhiza incarnata* were also found. *Calluna vulgaris* was beginning to colonise at one end. A fine specimen of *Acer campestre* was seen in a hedgerow nearby.

In the afternoon another site for *Potamogeton coloratus* and *Chara aculeolata* was found. The species list included *Oenanthe fistulosa*, *Riccia fluitans*, *Lythrum portula*, *Scutellaria galericulata* and *Populus nigra*. The rumoured vice-county record for *Typha angustifolia* was not confirmed.

Sunday morning was spent recording in a dormant sandpit at 'Moat' near the edge of Tipperary town. A substantial card which included *Orobancha minor*, *Carex muricata*, *Plantago major* subsp. *intermedia* and *Vulpia bromoides*, was produced. In the afternoon the party successfully navigated to Killough Hill, near Holycross village. This limestone hill has been mined for many years in spite of its status as an Area of Scientific Interest, and the southern end no longer exists. We had been warned to avoid the quarry face where nesting peregrines were installed. The hill was climbed from

the north end through a young wood of ash and hazel with *Viburnum opulus* and *Euonymus europaeus*. The ground cover included *Galium odoratum* and *Ranunculus auricomus*. *Ophioglossum vulgatum* was discovered on the edge of the path and the occasional late flowering *Orchis mascula*. Near the summit *Epipactis helleborine* and *Listera ovata* were quite common. *Ajuga reptans* and *Poa nemoralis* were also seen, as well as *Rosa sherardii* and forms approaching *R. tomentosa*. *Erigeron acer* and *Carlina vulgaris* were found at the quarry.

During the weekend a variety of vascula, including the usual supermarket bags and a hat, were observed in use. One vice-county recorder (from a more northerly county) was seen to be using a domestic sieve! Close observation revealed however the transfer of small creatures to glass tubes containing a clear liquid. Hydrobeetlemania was diagnosed! The sieve's usefulness however was proved, by the production of a specimen of *Utricularia vulgaris*!

ROSALEEN FITZGERALD & D. NASH

SCOTLAND

KELSO, ROXBURGHSHIRE (v.c. 80). 15th-16th JUNE

A group of ten met at Town Yetholm on a cloudy but dry day. The morning was spent at Upper Chatto on the Kale Water. Chatto Craigs (305m) has a number of basaltic outcrops on the steep east side which looked interesting. *Viola lutea* and *Avenula pratensis* occurred rarely in the grassland with a small colony of *Carex muricata* subsp. *lamprocarpa* on the earthworks of the old Iron Age fort at the top. Noteworthy was *Stellaria pallida* on a number of outcrops. This species has only recently been detected in Roxburghshire where it is confined to similar habitats in the east of the county. It can easily be overlooked as stunted *Stellaria media*. Near the farm of Upper Chatto, and well known to the farmer, was an extensive colony of *Sambucus ebulus*, easily the largest in the vice-county and first discovered here by Lady Emma Tennant in 1969.

The afternoon was spent at Hoselaw Loch and Din Moss, the former being a Scottish Wildlife Trust reserve. In the marginal birch woodland surrounding the raised bog there was an abundance of *Dryopteris dilatata* with some *D. carthusiana* and possibly their hybrid, *D. x deweveri* which, if confirmed, would be a new vice-county record. At the west end of the loch the vegetational change from eutrophic to oligotrophic conditions was quite dramatic. The former habitat had the following noteworthy species: *Cicuta virosa*, *Lycopus europaeus*, *Ranunculus lingua*, *R. sceleratus* and a large colony of *Carex riparia* known only from one other site in the vice-county. The aquatic flora of the loch was very poor but Chris Preston managed to extract *Potamogeton crispus* and *Zannichellia palustris* from his grab. Din Moss was dominated by *Calluna vulgaris* but did have *Empetrum nigrum* and *Vaccinium oxycoccos* and a small colony of *Salix repens* at the south-west extremity. As a finale, an impressive and conspicuous colony of *Trollius europaeus* with *Salix myrsinifolia* nearby grew in damp herb-rich grassland near the farm of Graden.

On the following day the group of nine split in two, one group going to the hill country of Bowmont Water and the other with Chris Preston to hunt for aquatics in the Tweed and Teviot near Kelso and hoping to refine the recently described *Ranunculus x kelchoensis* (*R. fluitans* x *R. peltatus*) in its type locality after 112 years. (Webster, S.D. 1990. *Watsonia* **18**: 139-146).

The first group drove to the farm of Sourhope owned by the Macaulay Landuse Research Institute from where they followed up the Sourhope Burn. The intensively grazed slopes did not have a great variety of species but *Thymus praecox* and *Helianthemum nummularium* showed the basic nature of the Andesite rock. At the Rowhope Burn a discretionary detour was made to avoid a large bull which fortunately showed more interest in his harem than the botanists. *Cardamine amara* and *Saxifraga granulata* ascended to 366m along the Burn. The Schil (605m) was climbed and a small colony of *Carex bigelowii* noted among rocks near the top. On descending the southern slopes, a small pale flowered *Myosotis* occurred in a spring and was soon recognised as *M. stolonifera*, a second vice-county record. *Carex laevigata*, which has few records, was found lower down the slope. However, of particular interest was more *Saxifraga granulata* flowering in a wet flush dominated by *Carex disticha* with *Lychnis flos-cuculi*, *Myosotis stolonifera* and the hepatic *Marchantia polymorpha*. This is a most unusual habitat for a species of dry or shaded conditions. Presumably it is a different ecotype.

The aquatic party had a very successful time, refining *Ranunculus x kelchoensis* at the type locality on the Teviot (confirmed by Dr Webster). They also saw much *Potamogeton x salicifolius*

(*P. lucens* x *P. perfoliatus*) and a little *P. lucens*. On the banks of Teviot they found *Heracleum sphondylium* x *H. mantegazzianum* (second vice-county record) and reinstated *Acorus calamus* to the vice-county list. It was found to border several hundred metres of Teviot below Roxburgh Castle where it has been overlooked for many years presumably because few of the plants are fertile and the spadices are hidden by foliage.

I would like to thank Mrs Olga Stewart for her species lists and the farmers and authorities concerned for help with access to the sites.

R.W.M. CORNER

GIGHA ISLAND, KINTYRE (v.c. 101). 21st JUNE

Gigha Island, or 'Gods Isle', is famed for its sunny climate but unfortunately it did not live up to its reputation when 17 botanists landed for a days tetrad recording. Despite the rain and mist many new and interesting plant records were diligently noted on fast disintegrating cards. The wet conditions made botanising more adventurous than expected and Olga Stewart demonstrated here dedication to the task in hand by even recording *Umbilicus rupestris* 'in passing' as she lost her footing on a steep bank.

The only recent v.c. record for *Bromus sterilis* was discovered by Allan Stirling and Bernard Thompson, and others managed to add a further six species to the island flora. *Vulpia bromoides* was recorded from the most northerly tetrad, whilst a visit to Achamore Bay turned up *Carex disticha* and *Glyceria declinata* new to the island flora. The coastal grasslands in the south included the seed heads of *Scilla verna*, whilst *Blysmus rufus* was recorded in the saltmarsh at Ceann an t'Sailean.

Nearly all eleven island tetrads were visited, at least in part, which has provided a useful basis for developing a Gigha Island checklist, thanks to the determined efforts of the damp, but enthusiastic botanists.

As the ferry lurched out of the harbour, with the party safely aboard, we were treated to a view of lightning splitting the low purple clouds as they rose up over the mainland hills. A suitably dramatic end to an eventful day.

MARION G.B. HUGHES

MEALL GARBH, GLEN LYON, MID PERTH (v.c. 88). 7th JULY

A joint meeting of the BSBI and the Perthshire Society of Natural Science's Botanical Section was held to collect more records on a quadrant basis for a future Flora of Perthshire. We met at Invervar where we were joined by Mr Ian Riddell, son of the estate owner, and his family (who had kindly reserved car-parking for us). The main party of eleven did a high-level route taking in the summit of Meall Garbh, while three visited interesting areas on the lower slopes of Glen Lyon.

The upper route took us to a small number of steep calcareous outcrops of no great size but they still had a rich flora typical of Breadalbane. Of particular note were *Carex capillaris*, *C. rupestris*, *Salix arbuscula* and one very small clump of *Woodsia alpina*. The rare hybrid willow *Salix lapponum* x *S. arbuscula* was also recorded. Towards the summit the flora became more acidic with such species as *Athyrium distentifolium*, *Dryopteris expansa* and *Juncus trifidus* becoming common, with an occasional patch of *Cryptogramma crispera*. A somewhat hazy but pleasant day was enjoyed by all.

The lower party, joined by the owner of the neighbouring estate, Mr J. Campbell Smith, amassed a fine list of 180 species, which included *Salix herbacea* near the valley floor and also *Carex aquatilis*, a rarity in Perthshire.

We thank the various estate owners, particularly Dr M.J. Riddell and Mr J. Campbell Smith, for permission to visit.

R.E. THOMAS

WALES

LAUGHARNE AND WHITEHILL DOWN, CARMS. (v.c. 44). 22nd JUNE

About 20 members assembled in the centre of Laugharne in rather cloudy, humid weather, including several leading BSBI members and recorders from v.c. 46 (Cards.), v.c. 41 (Glam.) as well as v.c. 44.

The leader, a native of Laugharne, had arranged privileged access within the castle keep (GR SN/302.104) which is currently being renovated by Cadw, Welsh Historic Monuments. The atmosphere was damp and shady and a number of native and non-native plants were seen. Unfortunately, prolific stands of *Cicerbita macrophylla*, in flower a matter of days previously, had been mown down but *Carex pendula*, *C. divulsa*, *C. sylvatica* and *C. flacca* had escaped. Species found in the nooks and crannies of the stonework included *Cochlearia officinalis*, *Umbilicus rupestris*, *Cheiranthus cheiri*, *Parietaria diffusa* and *Veronica hederifolia* subsp. *hederifolia*. Spent annuals growing between the cobble-stones were *Arabidopsis thaliana* and *Arenaria serpyllifolia* and a few plants of the liverworts *Marchantia polymorpha* and *Lunularia cruciata*, were also seen.

A number of planted woody subjects were noted including *Cotoneaster* c.f. *bullatus*, *Euonymus japonicus*, *Sorbus aria*, *Quercus ilex*, *Cornus mas*, *Deutzia* probably *scabra* and *Lonicera ledebourii* whilst several specimens of *Leycesteria formosa* were self-sown on the walls.

After leaving the castle, a brief detour was made along the main street of the town to see the population of *Orobancha hederæ* growing atop an old garden wall (GR SN/301.109) known here for about ten years but steadily declining in numbers due to progressive cleaning of the stonework. About 20 spent flower spikes were noted.

The lush hedgebanks of Dylan's Walk (GR SN/304.109) yielded *Rubia peregrina*, *Calamintha sylvatica*, *Origanum vulgare* and *Viola odorata*. Two species particularly frequent in the shady banks and cliffs of the Laugharne area were also seen, these being *Polypodium cambricum* and *Carex divulsa*.

An overgrown and very rank cultivated area perched on the edge of the cliff (GR SN/305.110), threatened by the growth of both *Syringa vulgaris* and *Sasa senanensis*, had several *Stachys byzantina* and *Foeniculum vulgare* plants amongst the weeds. The prolific growth of *Hebe x franciscana* (*H. elliptica* x *H. speciosa*) on the cliff above Dylan's Boathouse was noted whilst descending the steps to beach level.

The walk back to the cars at the foot of the cliff (GR SN/303.107) afforded the opportunity to record a number of maritime species like *Raphanus maritimus* and *Plantago maritima* at the top of the shingle bank. Growing at a somewhat higher level on the cliff were *Festuca gigantea*, *Polystichum setiferum*, *Euphorbia lathyris* and *Conium maculatum* whilst woody species included *Clematis vitalba*, festooning several areas of cliff vegetation, *Sorbus aria*, presumably originating from the specimen growing within the castle bounds above and a hybrid *Ulmus*, galled with the leaf-roll inducing homopteran aphid, *Eriosoma ulmi*.

On returning to the cars a short break was taken for lunch before driving the 3km to Whitehill Down (GR SN/293.130).

The 40ha Whitehill Down is one of three open-fields in the parish of Laugharne and is a rare survivor of an enclosure, subject of this ancient farming practice. The open-fields have no internal fences but the land is divided into a series of strips of varying size which are marked by low banks and shared out amongst the 76 burgesses. Each share historically comprised a number of strips in each of the open-fields with a balanced distribution of large and small areas on good and poor ground. Today adjacent strips are often farmed as a single unit enabling a degree of agricultural improvement on some parts of the enclosure. In the nineteenth century a rotation between corn and pasture was practiced but at present Whitehill Down is managed exclusively as permanent grassland for its hay or silage crops followed by aftermath grazing in the autumn and winter.

The Laugharne open-fields were surveyed by the Wales Field Unit of the (then) Nature Conservancy Council in June 1985 and a detailed vegetation analysis was produced to National Vegetation Classification specification. Whitehill Down supports a number of different grassland communities and variants mostly consisting of unimproved or semi-improved mesotrophic grassland of the *Cynosurus cristatus* - *Centaurea nigra* meadow and pasture type (MG5) on both dry and damp substrates. Several other NVC types also occur including areas of acid grassland, reed-bed, *Alnus* woodland and invasive scrub.

Many members of the party remarked upon the species-richness of the mesotrophic grasslands. Particularly notable was the presence of species such as *Carum verticillatum*, *Sanguisorba officinalis*, *Carex hostiana*, *Briza media* and orchids. Although most Dactylorhizids had been caught by late frosts, *Dactylorhiza majalis* subsp. *praetermissa*, *D. fuchsii*, *D. maculata* subsp. *ericetorum* and putative *D. fuchsii* x *D. maculata* subsp. *ericetorum* (*D. x transiens*) were identified together with several plants of *Platanthera bifolia* and *Listera ovata*. The season had progressed too far to see *Orchis morio* in flower, although the species grows here in reasonable abundance. Two species of *Euphrasia* were seen to be locally frequent and were later provisionally determined by George Hutchinson as *E. arctica* subsp. *borealis* and *E. anglica*, both new records for the site.

Several areas of *Molinia caerulea* dominated, acidic grassland occur on the site and are mostly not generally cut for hay. Tussocky swards have developed here with invading scrub of *Ulex*, *Rubus* and *Salix* and by-and-large they are very species-poor. Careful examination, however, rewarded members of the party with occasional plants of such species as *Genista anglica*, *Serratula tinctoria* and *Scutellaria minor*.

The site slopes down to the estuarine reed-beds of the Afon Taf which largely consist of mono-specific *Phragmites australis* although the least marine western margins have stands of *Carex riparia*. Other species noted included *Carex otrubae*, *C. nigra*, *Juncus gerardi*, *Oenanthe lachenalii* and *Eleocharis uniglumis*. Although not seen on this occasion, a small stand of the Red Data Book grass, *Alopecurus bulbosus* was recorded near to the edge of the reed-bed by the Wales Field Unit in 1985.

An area of scrubby *Alnus* woodland occurs towards the south-eastern corner of the site. *Carex riparia* was present here also, as a constituent of the ground-layer but the discovery of a few scattered plants of *Lysimachia vulgaris* was another new record for the site.

The flora of the area of short, wet, low-lying grassland near to, but just above the estuarine flats, included *Caltha palustris*, *Lythrum salicaria*, *Eleocharis uniglumis*, *Pedicularis palustris*, *Festuca arundinacea* and *Carex pallescens* (another new site record). Several Scarlet Tiger moths were also seen here.

Returning up-slope towards the road, drier mesotrophic grassland was again encountered and additional species seen included *Primula veris*, *Carex caryophyllaea*, *Pimpinella saxifraga* and *Vulpia bromoides*.

On arrival at the cars, the leader invited all members of the party back to his home for tea in Laugharne, where his wife had laid out a superb spread of home-made sandwiches and cakes. All present greatly enjoyed the feast in the now, very crowded kitchen.

Both Mrs Rees and John were very warmly thanked for arranging such an enjoyable and rewarding day rounded off by such a welcome and unexpected surprise. I am also most grateful to Cadw for allowing access to Laugharne Castle and to Laugharne Corporation, particularly Alderman Merchant, Portreeve, and Mr Argyle, Recorder, for permission to visit Whitehill Down. Thanks also to all experts present for their words of wisdom and finally, I acknowledge the invaluable information and data contained within the Wales Field Unit report.

Reference

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R.D. PRYCE

CAERLLAN, GWENT (v.c. 35). 5th-7th JULY
(Annual General and Welsh Exhibition Meetings)

Following dinner, those staying overnight in Caerllan Field Centre, drove the few kms to the Gwent Wildlife Trust Reserve, The Dixton Bank to see the large number of flowering Bee Orchids (*Ophrys apifera*) and a small number of Pyramidal Orchids (*Anacamptis pyramidalis*) with many other calcicoles. The nearby A40 verge provided some aliens including the scarce Narrow-leaved Peppercort (*Lepidium ruderale*).

Saturday morning began with a quick visit to a marsh at Lower Meend Farm though the Heath-spotted Orchids (*Dactylorhiza maculata*) were largely in fruit. Smooth-stalked Sedge (*Carex laevigata*) was frequent near the Eared Willows (*Salix aurita*).

As the cars travelled down Whitebrook Valley, the Large Cuckooflower was sought in vain, as the purple sheets that had edged the brook for hundreds of metres a month earlier had shed their petals. *Cardamine raphanifolia* comes from mountains in southern Europe.

Blackcliff, a woodland over Carboniferous limestone, had suffered from the two previous dry summers but still managed to provide a range of species including Upright (better known locally as Tintern) Spurge (*Euphorbia serrulata*), *Carex strigosa* and *C. sylvatica* two very similar sedges growing in close proximity so they could be examined for differences, Fingered Sedge (*Carex digitata*), Mountain Melick (*Melica nutans*) near its southern limit, Herb Paris (*Paris quadrifolia*), Columbine (*Aquilegia vulgaris*) in fruit, *Iris foetidissima* (shade had prevented flowering), a poor specimen of *Hordelymus europaeus* or Wood Barley, Narrow-leaved Bitter-cress (*Cardamine impatiens*) and four small specimens of Yellow Bird's-nest (*Monotropa hypopitys*).

The next stop just west of Tintern in the Angiddy Valley enabled members to examine *Stellaria nemorum* subsp. *glochidisperma*, the Welsh Wood Stitchwort and glimpse Monkeyflower (*Mimulus guttatus*) in the stream.

The final stop was at the lowland bog at Cleddon to find Cranberry (*Vaccinium oxycoccos*) growing in *Sphagnum* near Sundew (*Drosera rotundifolia*), Hare's-tail Cotton-grass (*Eriophorum vaginatum*), Bog Asphodel (*Narthecium ossifragum*) and Narrow Buckler Fern (*Dryopteris carthusiana*).

Sunday started at Penpergwm Pond, the body of which was inaccessible though Bog Bean (*Menyanthes trifoliata*) and Bladder Sedge (*Carex vesicaria*) could be easily recognised. The south-west margin was well clothed by Orange Foxtail (*Alopecurus aequalis*), Water-purslane (*Lythrum portula*) and Lesser Marshwort (*Apium inundatum*) at its only v.c. site. Tasteless Water-pepper (*Polygonum mite*) grew with Water Pepper (*P. hydropiper*) on the east side, the only (?) v.c. site for the former.

The afternoon was spent mainly in Cwm Celyn, an acid heath. A woodland flush was visited, with the owner, to see the recent first v.c. record of Whorled Caraway (*Carum verticillatum*). Ivy-leaved Bellflower (*Wahlenbergia hederacea*) occurring there in large quantities was only just coming into bud as was Lesser Skullcap (*Scutellaria minor*).

The heath was approached across a ditch full of Musk (*Mimulus moschatus*). The marsh had large spikes of Southern Marsh Orchid (*Dactylorhiza majalis* subsp. *praetermissa*), Common Spotted Orchid (*D. fuchsii*) and hybrids between the two. Wood Horsetail (*Equisetum sylvaticum*), Petty Whin (*Genista anglica*), Great Burnet (*Sanguisorba officinalis*), Creeping Willow (*Salix repens*) and Narrow-leaved Bitter Vetch (*Lathyrus montanus* var. *tenuifolius*) were scattered among the heather plants covering the slope.

A last stop was made at Bunker's Hill where, on old coal waste, a strange mixture of calcicoles and calcifuges formed a community. Musk Thistle (*Carduus nutans*), Blue Fleabane (*Erigeron acer*), Carline thistle (*Carlina vulgaris*), Crowberry (*Empetrum nigrum*) and Small Cudweed (*Filago minima*) seemed to thrive on the unpromising substrate. Nearby two roses were in evidence: *Rosa rubiginosa* by its apple fruity smell detectable from a distance and *R. mollis* lacking a scent but recognisable by its greyish foliage caused by the hairy nature of the leaves and the very straight prickles that contrasted with the very hooked thorns of *R. rubiginosa*.

Before breaking up the party expressed their thanks to Mr T.G. Evans for his preparatory work in seeking out such a range of habitats with interesting plants. He, in turn, expressed his thanks to Mr Williams of Lower Meend Farm who allowed parking on one of his fields and Mr Jeff Price and Mrs Mary Jones who gave permission to wander on their properties in Cwm Celyn.

T.G. EVANS

PENLEY, DENBIGHSHIRE (v.c. 50). 3rd AUGUST

Little Green Farm, the site of this field meeting, is farmed by Ian Owen and he is interested in all aspects of wildlife conservation. The farm is part arable and part cattle grazed. It has 21 field ponds and we examined 16 of them.

It was noticeable how the ponds differed. Ungrazed ponds were overgrown with tall herbs, *Sparganium erectum*, *Alisma plantago-aquatica*, *Typha latifolia* and *Olyceria* spp., while over-grazed ponds had more of the smaller plants, *Ranunculus sceleratus*, *Veronica beccabunga*, *Scutellaria galericulata* and *Callitriche* spp. The best ponds, botanically, were partly grazed, with abundant *Oenanthe aquatica*, *Carex pseudocyperus* and *Bidens cernua*. There was some

non-flowering *Cicuta virosa* and *Berula erecta* and one pond had a very large stand of *Schoenoplectus lacustris* subsp. *tabernaemontani*. Submerged plants included *Ranunculus aquatilis*, *R. trichophyllus*, *Chara vulgaris*, *Callitriche hamulata* and *Lemna trisulca*.

Four species of *Potamogeton* were identified, *P. natans*, *P. obtusifolius*, *P. berchtoldii* and *P. alpinus* (the latter rare in Wales).

Between ponds we visited two small woods. In one there was *Sorbus torminalis* and about eight *Tilia cordata* showing their upturned flowers. The second wood was ungrazed and had *Milium effusum*, *Dryopteris carthusiana* and *Carex strigosa*, *C. remota* and *C. sylvatica* growing along the small stream.

The day was notable for the variety of water plants and also for the pleasure of seeing so many good field ponds on a working farm.

JEAN A. GREEN

ANNUAL EXHIBITION MEETING, 1991

BRITISH BRAMBLES IN THE NORTH COTENTIN, FRANCE

The Cotentin Peninsula has been strangely neglected by British *Rubus* specialists. The only one to have published records from there is the Rev. W. Moyle Rogers, in 1898. There has equally been little or no French work there since the end of the last century.

A reconnaissance in 1991 resulted in the discovery of four species not previously known outside the British Isles. Two of these, *Rubus bloxamii* and *R. leyanus*, were not unexpected. But *R. tumulorum* and *R. fuscoviridis* have not been found in the Channel Isles and in view of their very restricted ranges in Britain seemed likely till now to be narrow endemics. Their presence in the North Cotentin reflects the strongly western facies of its *Rubus* flora. It also strengthens the possibility that other Cornubian specialities may similarly be found to extend to mainland France.

Herbarium sheets of the four gatherings were exhibited, together with British examples of the species and maps showing their British Isles ranges.

D.E. ALLEN

WHICH LEMNA?

Specimens of *Lemna minuscula* were presented with *L. minor* for comparison. Both were somewhat the worse for the Exhibition Meeting being late in the season!

E. BECKETT

RORIPPA ISLANDICA (Oeder ex Murray) Borbás NEW TO WALES

The discovery of *Rorippa islandica* in Cardiganshire (v.c. 46) in 1991, new to Wales, was briefly described with habitat notes. Further details will be submitted to *Watsonia* as a short note.

A.O. CHATER & T.C.G. RICH

RECENT ADDITIONS TO THE W. LLEYN FLORA

The hybrid *Festuca rubra* x *Vulpia fasciculata* (x *Festulpia hubbardii*), long searched for, has now been found at Abersoch and Pwllheli: the known sites for *V. fasciculata* in W. Lleyn.

The *Limonium binervosum* agg., known on Bardsey Island since 1955, has recently been assigned by M. Ingrouille to one of its segregate constituent taxa: *L. britannicum* subsp. *celticum* var. *pharensis*, hitherto only recognized from above South Stack lighthouse, and one other cliff on Anglesey. There are no other representatives of *L. britannicum* known from Caerns. v.c. 49, though the related *L. procerum* is found on the Lleyn mainland, as well as Great Orme and Anglesey.

A recent update of Roses has confirmed five additional hybrids for W. Lleyn: *Rosa canina* x *R. sherardii*; *R. caesia* subsp. *glauca* x *R. canina*; *R. caesia* subsp. *caesia* x *R. canina*; *R. canina* x

R. micrantha; and *R. canina* x *R. obtusifolia* (all determined by A.L. Primavesi). The last three of these could be new for Caerns. v.c. 49.

Other records of interest are *Marrubium vulgare* and *Polypodium cambricum* discovered by Iwan Edgar in Porth Ceirias, near Abersoch.

A.P. CONOLLY

CYMBALARIA MURALIS forma TOUTONII

In *Watsonia* **14**: 182-3 (1982) David McClintock drew attention to a remarkable variant of *Cymbalaria muralis* Gaertn., Mey. & Scherb. named *C. toutonii* by Chevalier in 1937. First found at Laval, France, it then appeared in 1960 at Aachen. In 1990 McClintock received seed (unavoidably not sown) from the Botanic Gardens, Utrecht. In the summer of 1990 an obviously identical plant appeared quite spontaneously on damp brickwork in the Cambridge University Botanic Garden. Cuttings were rooted before the original plant was destroyed as a 'weed'. In 1991 numerous identical self-sown seedlings, as exhibited appeared near their (?autogamous) parent. Uniformity of numerous progeny was reported both at Laval and Utrecht.

Chevalier had already suggested that *C. toutonii* is a mutant, and in 1947 Cufodontis named it *C. muralis* forma *toutonii*. In all probability it is a double recessive mutant comparable to the well-known variant *dodartii* of *Urtica pilulifera*, currently flourishing at Pembroke College, Cambridge.

D.E. COOMBE

OPHIOGLOSSUM LUSITANICUM : 31 YEARS IN CULTIVATION

In *The Wild Flowers of Guernsey* (1975) McClintock rightly ascribed the decline of this little fern to changed agricultural practices (cessation of grazing and furze-cutting for fuel) rather than to over-collecting. By 1960 *Ulex* (checked by the 1959 drought) had not completely covered the southern slopes; by 1979 spiny scrub was almost impenetrable, and the total of fronds in Guernsey was about 1,500.

Yet one plant in 1960 has produced uncounted thousands in moist, frost-free conditions at Cambridge. Remarkably, it is fertile throughout the year and was ideal for teaching (unlike *O. vulgatum*). Its greatest enemies apart from frost are competition from other plants (even 'weedy' mosses and liverworts), slugs and snails, and, in the field, rabbits.

It recovers rapidly from prolonged desiccation: in 1990 plants became fertile one month after six months' drying out; in 1991 some plants desiccated at up to 42°C for 18 months recovered in four to eight weeks.

D.E. COOMBE

AN UNUSUAL FORM OF CERASTIUM DIFFUSUM Pers. - CERASTIUM TETRANDRUM L. var. PUSILLUM A.J. Wilmott?

During botanical work on the machair of the Aird A'Bhorrair Peninsular, North Uist (v.c. 110) over the last four years, an odd annual *Cerastium* was found repeatedly. The plants were glandular, had herbaceous bracts, had tiny, clustered flowers, and apparently did not produce fruiting capsules. They occurred in a number of sites, often frequently, and in successive years. They are most typical of dry, first year fallow arable fields with *Arenaria serpyllifolia*, *Cerastium diffusum* (*C. tetrandrum*) and *Viola tricolor*. The fields in which it occurs are cultivated using traditional methods without herbicides.

Reference to the *Flora of the Outer Hebrides* (Pankhurst & Mullin 1991) immediately suggested that the plants could be *Cerastium tetrandrum* var. *pusillum* A.J. Wilmott (*Journal of Botany* **79**: 102). Comparison with the type specimen in **BM** showed that the plants were indeed very similar, although having more clustered flowers with slightly smaller parts.

If the plants produce no fruit, then how is this variety maintained? Such plants are certainly not 'one-offs'. We hope to cultivate plants in 1992 to find out more.

I. CRAWFORD, T.C.G. RICH & G. HALLIDAY

AQUATIC PLANTS DATABASE

A project to reassess the national distribution of submerged, floating and emergent aquatic plant species is currently being undertaken by the Biological Records Centre. The traditional sources of species-related records are being used, but in addition one object of the project is to incorporate records from the numerous site surveys which have taken place in recent years. It is important to ensure that only taxonomically reliable surveys are incorporated into the database; preference is then given to detailed surveys containing precisely localised records, particularly from under-recorded areas. The potential uses of the database were illustrated by maps showing spread of an alien species, decline of native species, colonisation of canals by native species, studies of the flora of individual sites and phenological studies of closely related species.

The work is financed by JNCC, NERC and NRA.

J.M. CROFT & C.D. PRESTON

A TAXONOMIC REVISION OF THE GENUS *GALANTHUS* L.

Snowdrops have recently been classified in several radically different ways, with as few as ten or as many as 28 species. No taxonomic agreement exists and the genus awaits a full biosystematic investigation.

For this reason, a scientific research programme was initiated as a joint project between the Royal Horticultural Society and the University of Reading.

Until now, this research has concentrated on leaf micromorphology and anatomy, seed morphology and palynology. Herbarium studies were also undertaken, over 500 herbarium specimens have been examined. On a recent visit to St Petersburg and Tbilisi material collected in the Caucasus was studied.

Extensive field studies have been made in Yugoslavia, Greece, The Aegean Islands, Turkey and France during Winter-Spring 1991. Collaboration with botanists in Russia and Georgia is underway, and plans are well advanced for a visit to the Caucasus in 1992 and 1993.

It is planned to use the modern molecular methods of chloroplast DNA analysis and phytochemistry to examine the infra and inter-specific relationships, and to resolve phylogeny.

A.P. DAVIS

THE *IRIS UNGUICULARIS* GROUP

Results were presented of a study on these taxa which recognised two species *I. lazica* Albov (S.E. Black Sea Coast) and *I. unguicularis* Poirlet (Mediterranean), the latter containing three subspecies: *unguicularis*, *cretensis* and *carica*. The last, subsp. *carica* further divided into three varieties: *carica*, *angustifolia* and *syriaca*.

A.P. DAVIS & S.L. JURY

SPECIES RECOVERY PROGRAMME

English Nature's Species Recovery Programme, launched on 9 April 1991, is a positive programme of action aimed at rescuing, reviving and restoring plants and animals threatened with extinction. A basic objective is to ensure long-term self-sustained survival of the species selected by encouraging appropriate habitat management and monitoring.

We are working in partnership with a wide range of individuals and organisations to achieve the aims of the programme. English Nature has committed over £100,000 to the programme in its first year.

By collaborating with our partner organisations, we are utilising funds in the most effective way possible to promote species conservation. To date we have concentrated our resources on initiatives for six species, selected in consultation with others - four plants and two animals. These are fen ragwort *Senecio paludosus*, ribbon-leaved water-plantain *Alisma graminea*, strapwort *Corrigiola litoralis*, fen raft spider *Dolomedes plantarius*, lagoon sandworm *Armandia cirrhosa*, Plymouth pear *Pyrus cordata*.

We have also provided additional funding to current work on eight further species.

ENGLISH NATURE

ASPECTS OF THE MONMOUTHSHIRE (V.C. 35) FLORA 1985-1991

Dandelions and Hawkweeds were illustrated by coloured 6" x 4" prints with the suggestion that if well-photographed, well-pressed, typical, labelled specimens, with close-ups of key parts could be made available, at a price, to enthusiasts they would make identification aids in the absence of adequate handbooks.

Distribution maps, a county coastline map and printed comments illustrated the possible threats to coastal plants when the proposed upgrading of the sea wall took place.

Displays of new vice county records and some scarce plants on herbarium sheets completed the exhibit.

T.G. EVANS

SOME BRITISH *OROBANCHE* VARIANTS

Orobanche species occasionally show a tendency towards colour or morphological variation and many varieties and forms have been described - particularly by early continental workers. However, there is a scarcity of such records in recent British literature.

In Britain, even the commonest species is comparatively rare and consequently, photographs and detailed field notes are the only responsible means of building up permanent records. This is probably one reason why variation in British *Orobanche* species often goes unrecorded.

Nevertheless, their occurrence is more frequent than might be supposed, and by way of example, colour photographs were shown of some recently encountered. These included an example of *O. rapum-genistae* f. *hypoxantha* Beck from Caerns. v.c. 49, an unidentified form of *O. minor* (occurring at two separate localities in S. Lancs. v.c. 59 and SW Yorks. v.c. 63), and several unusual forms of *O. reticulata* from Mid-W. Yorks. v.c. 64, including one approaching f. *kirantha* Beck, and another apparently undescribed so far.

A request was made for details of examples of variation in *Orobanche* - British or otherwise.

M.J.Y. FOLEY

CONSERVATION OF MOROCCAN CONIFERS IN THE BRITISH ISLES

Concerned by the gradual erosion of wild populations of many coniferous species, the Edinburgh Conifer Conservation Programme aims to help safeguard many species by establishing breeding populations of rare and endangered temperate conifers throughout the British Isles.

At the present rate of loss of wild habitats it is likely that many of these cultivated trees will outlast the species in the wild. In such cases it will be possible to reintroduce these species back into the wild from a broad genetic base.

A series of expeditions has been organised over the next few years to sample seed from across the natural distributions.

During a visit to Morocco we collected seed of four species of Moroccan trees: *Abies marocana* Trabut, *Cedrus libani* A. Richard in Bory subsp. *atlantica* (Endl.) Batt. & Trabut, *Cupressus atlantica* Gausson and *Tetraclinis articulata* (Vahl) Masters.

It is planned to undertake further studies on these genera in order to ascertain the correct systematic position and nomenclature of these Moroccan taxa.

M.F. GARDNER, S.L. JURY & MOH REJDALI

PROBLEMS IN THE *DRYOPTERIS AFFINIS* GROUP

The *Dryopteris affinis* group is widespread in Europe and Macaronesia. It has a very complicated ancestry and is also apomictic. Within the group, however, there are "forms" or "noda" which can be distinguished by the experienced botanist. In the range of specimens exhibited two complexes - *affinis s.s.* and *borreri* - emerged as identifiable units.

The most important character in identification is the indusium. Frond shape is a second useful character. Scaliness of the stipe and rachis, and the colour of those scales are distinctive. Pinnule shape can vary considerably but the degree of toothing and the sharpness of teeth is diagnostic. The shape and degree of lobing of the lowermost basal pinnule on the frond is also very important and

the lowest pinna should always be collected. The time of unfurling of the leaves in Spring can also be significant.

The British Pteridological Society will be mapping the distribution of the *Dryopteris affinis* group over the next five years. Further particulars can be obtained from Anthony C. Pigott, 43 Molewood Road, Hertford SG14 3AQ.

M. GIBBY, A.C. JERMY, A.M. PAUL & A.C. PIGOTT

CYTOLOGICAL CATALOGUE OF THE BRITISH AND IRISH FLORA

Progress in compiling a cytological catalogue of the British and Irish Flora was reviewed. The Valentine card-index has now been computerised using Advanced Revelation software; all taxa being listed according to the Kent checklist. The post 1975 literature survey is also progressing well. A total of 278 populations of 163 species have now been counted at Leicester. Of these new counts, many are the first European or British counts and some counts are new to the World. A selection of mitotic preparations was displayed, including *Euonymus europaeus* ($2n=32$) which represents the first count at this ploidy level, previously published counts (from Eastern Europe) have been $2n=64$. A request was made for assistance with plant collection, chromosome counting and literature searches. A series of Short Notes to communicate the results has been started in *Watsonia*.

R.J. GORNALL & J.P. BAILEY

VEGETATION SURVEY ROUND A LATE MELTING SNOW PATCH IN THE VAL D'AOSTA

The growing season for many alpine flowers is extremely short, and even as late as the first week in July there are still many large snow patches at high altitudes in the Aosta valley. In this fieldwork project the undergraduates mapped a snow patch as it melted, measured light and temperature in and around the snow patch and made a detailed study of the plants that emerged from the snow patch. The study gives some idea of the speed with which some plants grow, even when they are still under the snow.

A.M. HALL, H. BARTRAM, P. HOLT & P. WALLIS

LT.-COL. JOHN CODRYNGTON 1898 - 1991

"This indefatigable old soldier was shrewd and creative, his memory a marvel. He was the gentle water-colourist, the unstoppable traveller, the ingenious garden designer, the eager botanist, the undercover-agent, the singer, the leg-puller, the cheerful friend".

On show were 19 watercolours of plants he painted in 1905-6 when he was 6 and 7, his "Flowers of the Field" of 1907 with his annotations, an extract from his set of 300, indexed, "botanical maps and directions" referred to in his obituary in *Watsonia*, copies of obituaries in other journals, of a letter he wrote from Salzburg when with his regiment to the *Wild Flower Magazine* in September 1922, and a note of the exhibition of some of his very numerous paintings held at the Michael Parkin Gallery in January and February 1992.

D. McCLINTOCK

MEGA-MUSTARD (*SINAPIS ALBA* L.)

Photographs and specimens of a 220cm tall plant of *Sinapis alba* which occurred as a casual in a garden at Nayland, Suffolk (v.c. 19) in 1989 were exhibited. The size of the plant was partly attributed to home-made compost! Seed from the plant grown in the same soil in 1990 produced only normal-sized specimens.

This plant was the source of the maximum height limit given for *Sinapis alba* in *Crucifers of Great Britain and Ireland*.

E. MILNE-REDHEAD & T.C.G. RICH

GUERNSEY 1991

Although the islands of the Guernsey Bailiwick have been well worked for some time, fresh good finds continue. The visit of Prof. Stace in May added two important, critical, grasses - guess which! Worth special mention are:

Guernsey - *Reseda alba*, 1st record since 1973. *Myosoton aquaticum*, the third occurrence. *Trifolium incarnatum*, last record 1963 of this agricultural waif. *Potentilla recta*, new to Guernsey. *Pyrus communis*, 2nd record. *Senecio viscosus*, new to Channel Islands. *S. x albescens*, 2nd record. *Sisyrinchium montanum*, new to Channel Islands. *Festuca rubra x Vulpia bromoides*, new to Channel Islands.

Alderney - *Cynara scolymus*, new to Channel Islands. *Onopordum acanthium*, 1st record for Bailiwick for 100 years.

Sark - *Montia perfoliata*, 1st record, for the family too. *Lythrum salicaria*, 1st record, apparently a garden outcast. *Lobelia erinus*, 1st record. *Carex sylvatica* 2nd record. *Festuca ovina* subsp. *ovina*, new to C.I. (being checked at Leicester). *Poa nemoralis*, 1st record. *Bromus madritensis* var. *ciliatus*, new var. for C.I. *Trisetum flavescens*, 1st record. *Agrostis canina*, 1st record for Sark itself.

Herm - *Crassula helmsii*, 1st record.

B. OZANNE

VERONICA x LACKSCHEWITZII Keller - AN OVERLOOKED HYBRID?

The distinction between the closely related species *Veronica anagallis-aquatica* and *C. catenata* was first brought to the attention of British Botanists by G.C. Druce in 1911. The sterile hybrid between them, *V. x lackschewitzii* Keller, was recognised in Hertfordshire by I.A. Williams in 1928, although it had been collected much earlier. Although the hybrid has been studied by J.H. Burnett and, experimentally, by N.G. Marchant, many botanists are still unfamiliar with it. The long sterile racemes are, however, quite distinctive. The hybrid is found in disturbed sites (e.g. gravel pits) and in more stable habitats. In some rivers it can form extensive, vegetatively reproducing clones. Two complicating factors are (1) different races of *V. anagallis-aquatica*, when crossed experimentally, have produced sterile plants similar to *V. anagallis-aquatica*, when crossed experimentally, have produced sterile plants similar to *V. x lackschewitzii* and (2) some populations of the parents are highly complex and contain fertile intermediates.

C.D. PRESTON

FUMARIA VAILLANTII Lois. IN DUNDEE DOCKS

Fumaria vaillantii was found as a casual in two places in Dundee Docks (v.c. 90) during a Kindrogan Field Centre excursion on 19 August 1991. It was growing on a disturbed road verge by a new warehouse with *Fumaria muralis* subsp. *boraiei* and *F. officinalis*, and nearby on dumped soil with *F. officinalis*.

This may be the second record for Scotland.

T.C.G. RICH

THE ERYTHRONIUM DENS-CANIS COMPLEX

The genus *Erythronium* (Liliaceae) encompasses between 15 and 25 species, most native to N. America. Four taxa are found in Europe and Asia: *E. dens-canis* L., *E. caucasicum* Woron., *E. sibiricum* Kryl. & Mey. and *E. japonicum* Decne. These are treated in various ways taxonomically. Provisional results were presented from morphological, palynological, biochemical and anatomical evidence which shows they are worthy of specific recognition.

N.A. ROWLAND

PLANT HUNTING IN THE PYRENEES

The results of a visit to the Pyrenees in May 1991 were reported. The Pyrenean mountain chain is particularly well-known for its range of habitats: the cool Atlantic coast to the hot Mediterranean shores; the steep, cool and moist northern cliffs to the hot, dry, arid Spanish slopes. The outstanding flora of this botanically rich area provided some 180 herbarium specimens for RNG and was recorded in over 700 colour slides. Highlights of this visit included *Narcissus poeticus*, *Gentiana acaulis*, *Ramonda myconi* and *Erythronium dens-canis*.

N.A. ROWLAND & R.D. HYAM

THE DISTRIBUTION OF *CARDAMINE BULBIFERA* (L.) Crantz IN BRITAIN

Cardamine bulbifera, Coralroot, is a very local, native plant of woodlands in the Weald, the Chilterns, and Staffordshire. It is also introduced and naturalized elsewhere in Britain and Ireland. Since 1988, we have been investigating the distribution of *Cardamine bulbifera* in detail to learn more about its ecology, reproduction and current status.

CURRENT STATUS

Localities Status	Native	Introduced
-post-1988	113	26
- extinct	30	16
- untraced or unchecked	35	4

Maps were shown of the plant with a request for more information about old or untraced localities.

A.J. SHOWLER & T.C.G. RICH

UMBELLIFERS - HOME AND AWAY

The exhibitor once again presented material arising from recent excursions to the mountains of Southern Europe in pursuit of rarely-seen species. *Seseli intricatum* Boiss. and *Ferulago granatensis* Boiss., from the Spanish sierras, were of particular interest.

The Scarce Plant Project and the revision of the BSBI Umbellifer Handbook led to the inclusion of *Oenanthe silaifolia* Bieb., *Oenanthe fluviatilis* (Bab.) Coleman and *Apium repens* (Jacq.) Lag. In the case of the *Apium*, material from Britain and the continent was shown, inviting comment on the status of Port Meadow collections.

The collection of European umbellifer fruits was available for inspection, as usual, and there was a live exhibit of three *Eryngium* species to demonstrate the wide range of over-wintering habits.

M. SOUTHAM

FERNS FROM NEWLAW MOSS V.C. 73

An exhibit of ferns from Newlaw Moss, north of Dundrennan, v.c. 73 were shown including *Thelypteris thelypteroides* known there since 1959. Other ferns are various Buckler Ferns including the hybrid *Dryopteris x deweveri* with both its parents. This year 2 large clumps of *Osmunda regalis* were found; this is rare in the county with only 2 other sites.

Also shown were plants from v.c. 73, *Viola reichenbachiana* from its only site. A very slender form of *Crepis paludosa* which is common in wet meadows, with a query whether other people have found a similar form. A plant of *Viola witrockiana* with normal largish purple flowers and a hybrid flower the size and colouring of *V. tricolor* on the same plant.

Paintings of wild flowers seen this year in Ireland and Scotland.

O. STEWART

WILD FLOWERS AND FRUITS

The five smaller paintings of *Aquilegia vulgaris* (Columbine), *Iris sibirica*, *Trollius europaeus* (Globeflower), *Papaver rhoeas* (Common Poppy), and *Rosa canina* (Dog-rose), were painted from life as part of a portfolio for an art course.

This was the catalyst for my interest in wild flowers, which has since become a passion. I hope to combine this, and through botanical art, help to conserve our wildflowers.

The three larger paintings were done in the autumn, with more care, and with a possible career in botanical art in view. They are *Castanea sativa* (Sweet Chestnut), *Sparganium erectum* (Branched Bur-reed), and *Cirsium vulgare* (Spear Thistle).

J. TYLER

JUVENILE PLANT-LORE

The exhibit gave examples of some of the ways in which plants feature in the folklore of children. It included plants used as food (*Crataegus* spp.), in divination (*Fraxinus excelsior* and *Galium aparine*), and in games and pastimes (*Calystegia* spp., *Alopecurus pratensis* and *Plantago lanceolata*).

The examples shown were taken from material contributed towards *A Dictionary of British & Irish Plant-lore* (see *BSBI News* 56: 30, 1990). Approximately 1750 items of information have been collected towards this project, but additional information is urgently sought.

R. VICKERY

AN *ALCHEMILLA* NEWLY DISCOVERED IN NORWAY : MIGHT IT BE IN BRITAIN?

In 1989, a Norwegian botanist found in W. Norway an *Alchemilla* he was unable to identify. He saw that it resembled the endemic Faeroese - Icelandic species *A. faeroensis*, and it was subsequently confirmed as related to that species, but distinct. I was able to visit the locality in May 1991: the exhibit showed a pressed specimen, photographs of the habitat, and details of related British and Continental species of the Section *Splendentes*.

The new species will be published in 1992 by the Swedish *Alchemilla*-specialist Dr Stefan Ericsson.

S.M. WALTERS

PROGRESS ON THE OXFORDSHIRE (V.C. 23) COUNTY FLORA

Progress is reported on a new Flora started in 1970 to update that of Druce (1927).

The coverage is now quite thorough, with c.170,000 records, 5 species found in all tetrads and 100 species recorded in 85% or more. To fill gaps we have utilized records (2300 so far) from the Berks, Bucks and Oxon Naturalists' Trust. We used low tetrad scores, the absence of 'ubiquitous' species and low scores on early season species, to target tetrads and species, adding another 900 records in 1991.

In many critical groups we are short of authenticated records and records confirmed by the appropriate expert will be welcomed. The bright spot is *Taraxacum*. We are also short of records of e.g. Conifers and early spring flowers.

We showed several examples of the 590 species so far mapped.

S.J.R. WOODSELL, R. PERRY & H.J. KILLICK

NEW TO GREAT BRITAIN? A WILLOWHERB AND A WILLOW

August 1991 revealed two native hybrids which may not have any previous British records. They were *Epilobium montanum* x *E. lanceolatum* from South Devon and *Salix cinerea* x *S. triandra* from East London. Pressed specimens were shown and morphological and habitat descriptions given. A fine painting of each was also exhibited by Laura Andrew.

B. WURZELL

ADVERTISEMENTS

BOTANICAL EXCURSION TO BULGARIA

Monday 25 May - Saturday 6 June 1992

Following the successful tour organised by the British Bulgarian Friendship Society for the BSBI, Prof. E.J. Sheppard will lead another tour in the Vitosha, Rhodope & Stranja Mountains. There will also be visits to the outstanding geological sites at Belogradchik, Karjali and Sliven (Blue Mountains).

Outline programme, cost and more detailed information will be sent on request. Please write as soon as possible as the closing date for bookings is 24 April

ITA PURTON (Secretary), The British-Bulgarian Friendship Society, c/o Finsbury Library, 245 St John Street, LONDON EC1V 4NB (tel. 071-837-2304)

BACK NUMBERS OF BSBI PUBLICATIONS

Are any members interested in back numbers of *BSBI News*, *Watsonia*, or *BSBI Abstracts*. I have to dispose of the mountain of copies which I have accumulated over the years.

BSBI News - parts **3 - 9** (1974-75), **17 - 48** (1977-88)

Watsonia - Vols **11** (1,3,4), **12 - 17** (1978-89)

Abstracts - **6 - 20** (1975-90)

Naturally I should expect postage costs to be refunded or anyone calling on me could collect any they wanted.

GWEN ELWELL, 3 Grove Road, DUNSTABLE, Bedfordshire LU5 4BY (tel. 0582 61958)

MEDITERRANEAN PLANTS

For those contemplating a Mediterranean wild flower holiday or seeking a refresher course, Brian Gale and Franklyn Perring are running a non-residential weekend at the London University Botanic Gardens, Egham, Surrey and at the Royal Botanic Gardens, Kew on July 4 -5 1992.

Some of the teaching will be done with the help of colour slides but most of the time will be spent looking at living plants.

For further details please contact:

FRANKLYN PERRING, 24 Glapthorn Road, OUNDLE, Peterborough PE8 4JQ

1992 BOTANY TOURS OVERSEAS - LED BY BSBI MEMBERS

Mount Olympus, Greece

11-20 June

F.H. & M.E. Perring

Further information from: Wildlife Travel, RSNC, 120 Wilton Road, LONDON SW1V 1JZ (tel. 071-931-0601)

STOP PRESS

Remember the date when reading 'PANTS', page 48.

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BSBI News (ISSN 0309-930X) is published by the Botanical Society of the British Isles.

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The Hon. General Secretary, c/o Dept. of Botany, The Natural History Museum, Cromwell Road,
London SW7 5BD.

Camera ready copy produced by Gwynn Ellis and printed by J. & P. Davison, 3 James Place, Treforest, Pontypridd, Mid Glamorgan CF37 2BT (tel. 0443-400585)

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