



20 cm
LOWER CAULINE LEAF
(connate base cut)

UPPER CAULINE LEAVES
(in connate pairs)

Dipsacus laciniatus at Parkland Walk Extension
del. Laura Andrew © 1992 (see page 39)

ADMINISTRATION

HON. GENERAL SECRETARY (General Enquiries) Mrs Mary Briggs, M.B.E.,
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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

NOTICE TO MEMBERS

COUNCIL NOMINATIONS

Nominations for vacancies on Council, in writing, signed by two members of the Society and accompanied by the written consent of the candidate to serve, if elected, should be sent to the Hon. General Secretary, at the above address, to arrive BEFORE FEBRUARY 1st 1993. (See *Year Book* 1993 for the list of present Council members May 1992 - May 1993.)

MARY BRIGGS
Hon. General Secretary

CONTRIBUTIONS INTENDED FOR

BSBI NEWS 63

should reach the Editor before

28 FEBRUARY 1993

DIARY

N.B. These dates are supplementary to those in the 1993 Calendar.

1993

FEBRUARY

- 1 Deadline for applications for grant from Pat Brenan Memorial Fund (see page 50)
 - 16 *Climate change and the British flora* lecture, Linnean Society, London (see page 47)
 - 28 Deadline for contributions to *BSBI News* 63
- Deadline for bookings for Recorders Conference York (see page 7)

MARCH

- 18 Translocation Conference (see leaflet with this mailing)

MAY

- 14 *Conservation and the Herbarium* Conference, Liverpool Museum (see page 48)
- 15-29 Kew Guild Centenary (see page 47)
- 24 Excursion to Bulgaria, until June 5 (see page 47)

JUNE

- 5-19 Tour of Hungary (see page 46)

SEPTEMBER

- 3-5 Recorders Conference York (see page 7)
- 16-19 2nd International Workshop on the Ecology and Management of Invasive Riparian and Aquatic Plants, Kostelee n.c.i., Czechoslovakia (see page 49)
- 23-25 *Natural History and Literature (1650-1850)* Conference, Chichester, West Sussex, organised by the Society for the History of Natural History. Details from Dr Paul Foster, WSIHE, Chichester, West Sussex PO19 4PE
- 24-27 *Plants and People Conference*, Royal Botanic Garden, Edinburgh (see page 49)

OCTOBER

- 16 *Conservation of the Biosphere meeting*, Winchester Guildhall (see page 49)

1994

SEPTEMBER

- 12-16 9th EWRS Symposium on Aquatic Weeds, Trinity College, Dublin (see page 49)

IMPORTANT NOTICES

WHATEVER HAPPENED TO COURTESY?

The following complaint has been received from a correspondent. I have decided to publish it in a prominent position as we all need such a reminder some time or other, I know I do! Ed

Do you ever get complaints that people reply to requests for information in *BSBI News* and get no reply. I think a sharp reminder is needed, that postage is expensive, time precious and **whatever happened to courtesy?** All people asking for information should acknowledge replies. I suppose it was all taken for granted in more gracious days, but is 'going out'. It has now happened to me twice. Of course letter (hand) writing is out anyway isn't it?

Name and address supplied

CORRIGENDA CORNER

Apologies to the family of the late M.C. Clark for describing him in last years *Annual Report* as 'an expert in the Mammalian field'. Mr T Preece informs us that Mr Clark was in fact 'a very remarkable field *mycologist*... He was awarded the Linnean H.H. Bloomer Award in 1987 for his *mycology*.' Thank you Mr Preece for bringing this to our attention.

Apologies also to Deryck Viney for getting both his addresses wrong in *BSBI News* 61 under the heading *Flowers of North Cyprus*. His UK address (until December) was 138 Tubbenden Lane, Orpington BR6 9PR (not 95 Crofton Road) so if you have not received a reply don't blame Deryck. Write again to his Turkish address: Karaman, Girne, Mersin-10, Turkey (not Messin).

EDITOR

EDITORIAL

A Happy New Year to all. I trust you all had a merry Christmas and to celebrate the festive season, (even if by the time you read this cold turkey will be but a queasy memory) you have another bumper issue of *News* to wade through. My thanks to all contributors.

Notice to contributors. Typewritten or computer printed copy can now be scanned directly into my computer setup. If you have access to a computer or typewriter do use it to produce your copy and please keep corrections to a minimum or use a pale-blue ink. Hand-written copy is, of course, still welcomed so long as it is legible, although this cannot be accurately scanned in yet!

White-flowered plants. Elizabeth Norman writes that she has seen white-flowered *Impatiens glandulifera* and *Arctium minus* s.l. by the Thames at Hammersmith.

Flora Britannica. *Woodbine* is the name of a newsletter sent to all correspondents. Its intention is to update you on the project and to give guidance as to the specific plants and parts of the country we would like more information on. Copies are available from Common Ground, 41 Shelton Street, London WC2H 9HJ.

Botanical artists.

Hilli Thompson, whose drawings have often graced the pages of *BSBI News* (see page 44) and who was responsible for many of the illustrations in Clive Stace's *New Flora*, would be pleased to hear from anyone wanting botanical drawings. Her address is 42 Dover Road, Ipswich IP3 8JA.

Mike Hill has been producing botanical illustrations for a few years and some have been shown at the Society of Botanical Artist's annual exhibitions in 1990 and 1991. He asks if any author needs illustrations for papers in *BSBI News* (or for any other journal) as he wants to keep his hand in. Mike is currently working on a D.Phil project (in entomology). His address is Environmental Archaeology Unit, Walled Garden, University of York, Heslington, York YO1 5DD (tel. 0904 433847). I must apologise to Mike for the delay in publishing this offer.

Change of Address. Dr Sarah Webster has left *English Nature* on secondment to the Department of the Environment as Head of Research Branch in their Directorate of Rural Affairs. Her new address is Room 917B, DoE, Tollgate House Houlton Street, Bristol BS2 9DJ (tel. 0272 218159).

Nomenclature. Despite all my good intentions I'm afraid I have still not managed to fulfil my promises to use Kent/Stace nomenclature and to give English names throughout *BSBI News*. I had hoped to have had some help with the typing of this issue but it was not to be. So instead of checking nomenclature, etc., I've been slogging away at the keyboard! Sorry.

EDITOR

HON. GENERAL SECRETARY'S NOTES

Congratulations to Duggie Kent whose *List of Vascular Plants of the British Isles* was published this year. This list replaces J.E. Dandy's *List of British Vascular Plants* - for long our Standard List but now 35 years out of date. Working in close collaboration with Clive Stace, Duggie's weighty manuscript was processed for publication by the BSBI Database at the University of Leicester. The Kent *List* and the *New Flora of the British Isles* are both outstanding achievements by BSBI Members and these publications are invaluable for our studies of the taxonomy and distribution of our flora in the British Isles with which we can go forward into the next century.

Keith Ferguson (past Hon. Gen. Sec. of BSBI) is a winner of a Botanical Society of America Special Award presented at the International Science and Engineering Fair at Nashville, Tennessee in May this year. The citation was published in *Plant Science Bulletin*:

'Ian Keith Ferguson, Deputy Keeper of the Herbarium and Head of the Palynology Unit at the Royal Botanic Gardens Kew, is a premier systematic palynologist worldwide. In 1970 he published, together with D.A. Webb, one of the first papers using scanning electron microscopy to study pollen morphology. He has provided valuable new insights into the use of pollen in systematics. He founded the Linnean Society Palynology Specialist Group in 1972 and has organised two major international palynological conferences for the Society. He has authored or co-authored over 100 original research papers, and co-edited five books. Among his notable works are the discovery of a unique pollen type in the genus *Crossandra*, his study of the pollen morphology of the genus *Erythrina* in relation to floral structure and pollination, and his phylogeny of the Restionales and Poales using pollen morphology. His main research interest is in the structure, evolution, and biology of pollen in the Leguminosae.'

Congratulations Keith!

Peter Fry

Our thanks to Peter Fry who on regular visits to the Dept of Botany, the Natural History Museum, now replies to all the BSBI post sent there (our official address). Peter recently retired from Anglia Polytechnic University as Head of Science Education, and his experience in education is particularly useful for the many requests that we receive from teachers, students and schoolchildren for help with projects. Members who have written to the Society c/o the NHM may well have received a reply over his signature, and we send appreciative thanks for his good help.

Dublin Naturalists' Field Club

Our offer to include addresses of local Botanical Societies in the *Year Book* (see *Year Book* 1993 pp. 10-13) was intended for **Botanical** groups, clubs and associations, and we regret that we do not have space to add general natural history societies also, although we do realise that many of these include local botanical activities. The Dublin Naturalists' Field Club was founded in 1886 with the aim of promoting the practical side of **all** branches of natural history, runs a programme which emphasises field activities and currently includes a project of special interest to BSBI members, i.e. *A Flora of County Dublin* is being finalised. The Hon. Sec. is Dr David Nash, 35 Nutley Park, DUBLIN 4 Ireland.

Manx news

The Manx Nature Conservation Trust has established its first headquarters, housing a shop/display/interpretation area and office for the Trust's first full-time Conservation Officer, John Lamb. Some BSBI leaflets were sent on request, and visitors to I.O.M. can look for the centre at The Courtyad, Tynwald Mills, St Johns.

China mail

It was good to receive a P.C. from China, from the recipient of a Warburg Grant contributing towards his expenses on this botanical expedition, and David Evans says 'the trip has been unbelievable.'

Tail-piece

Heard on my travels, the tale of Dr Eva Crackles our redoubtable v.c. recorder for S.E. Yorks, who, while standing bird-watching one day had a trusting tree-creeper work its way up her rugged field clothing ...

As a keen naturalist Eva has kept bird notebooks and she tells me that it was on June 6 1943, a very cold day and, as a hard-up teacher at the time, she would have been wearing ex Land Army cords and a gabardine.

'Attracted to a pollarded willow we saw three young tree creepers busily progressing upside down along the branches. We were standing side by side watching their antics, when one flew out of the hedge alighting on Eunice's sleeve. It made its way up and finally rested on her shoulder. Then it departed and I in turn had a tree creeper land on my sleeve and work its way up to my shoulder.'

Sadly Eva has suffered poor health in 1992 and is at present immobilised by arthritis in her knee, although she was able to direct her successful field meeting from local transport provided for her. We hope that 1993 will be better.

MARY BRIGGS, Hon. General Secretary

RECORDERS AND RECORDING

Current lists of v.c. Recorders, and of Referees and Specialists are published in *BSBI Year Book for 1993* - sent with this mailing.

For more than 40 years Captain Roe has been associated with Somerset botany, since an Admiralty appointment brought him with his wife to live in that County. He has been v.c. Recorder for N. Somerset since 1965, and from 1979 for both S. & N. Somerset, and in 1984 he published *The Flora of Somerset*. Now Captain Roe feels that it is time to retire as Recorder and we send him many thanks for those years as custodian of the county records. Breda Burt too retires after nine years as Recorder for East Sussex, where her detailed knowledge of her 'patch' and interesting habitats has been generously shared with many BSBI members. Grahame Walley (v.c. 56 Notts.) and Mr & Mrs Birse (v.c. 91 Kincardines.) also retire. We sincerely thank them all for their hard work as Recorders.

We are pleased to welcome as new Recorders, Paul and Ian Green for Somerset v.c. 5 & 6 respectively (apparently a Green take-over in the South-west, but the Green twins are not I think related to Dave Green, adjoining Recorder for v.c. 7?), to Paul Harmes for E. Sussex v.c. 14 and to David Wood for Nottingham v.c. 56.

John Trist was first appointed as *Bromus* Referee in 1979, since when he has named a very large number of many species of grass for many members, and we send him good wishes on his retirement as a Referee. Tim Rich, who has resigned as *Crucifer* Referee, has also helped a large number of members with this puzzling family, not least by his authorship of the *BSBI Handbook Crucifers of Great Britain and Ireland*, a particular achievement. Keith Ferguson also resigns as *Verbascum* Referee, writing that 'with great regret' he must resign as:

'I find I am getting upwards of 12 scraps in August/September and some of them are clearly "horrible hybrids of horticultural origin". I feel I am cheating if I guess parentage and the material is more often than not totally insufficient as the sender clearly wants to leave the (often sterile!) plant for posterity - a very reasonable and responsible attitude. I don't feel I am giving a service nor getting any intellectual reward from the exercise, so the time has come to hand the challenge to younger blood.'

We have not yet found this 'younger blood' - any volunteers? Keith will continue as *Salicornia* Referee. All will join in our appreciation as we send good wishes and thanks to the retiring Referees.

We welcome Tom Cope to additional *Juncus* groups, and Megan Dowlen, who works in the British Herbarium in the NHM Dept of Botany, where she has access to the large-scale v.c. boundary maps - so it is appropriate for her to be the Referee for vice-county boundaries, and she will take this on from Roy Vickery. Clive Stace continues as Referee for *Vulpia*, and, now with

Tom Cope, as general *Juncus* Referee, but due to pressure of work he must resign as *Festuca* Referee - this genus is very exacting and time-consuming, and there is no Referee for *Festuca* at present. Clive now has very heavy commitments at the University, and he asks members not to send him unsolicited parcels of plant specimens (other than *Vulpia* & *Juncus*), as he does not have the time to name these.

Some Recorders and Referees have changed addresses, please check these in the 1993 *Year Book* before posting, e.g. Rev. Tony Primavesi (*Rosa*) - the Post Office has now finalised the address of his college as: Ratcliffe College, Fosse Way, Ratcliffe on the Wreake, Leicester LE7 4SG; Trevor Elkington (*Erophila*) now retired from the University, asks for plant material to be sent to his home address: 91 Parkhead Road, Whirlow, Sheffield S11 9RA; Tom Cope (*Juncus*) asks us to use his R.B.G., Kew address; and Walter Scott has just sent his new address, New Easterhoull, Castle Street, Scalloway, Shetland Isles ZE1 0TP.

MARY BRIGGS, Hon General Secretary

RECORDERS CONFERENCE, UNIVERSITY OF YORK 3 - 5 SEPTEMBER 1993

The Recorders Conference is primarily for the benefit of BSBI vice-county recorders but as in previous years, ordinary members may apply for any spare spaces. These will be allocated on a strict 'first come first served' basis. If you would like to be placed on the waiting list please write to the address below as soon as possible, enclosing a 16 × 23cm SAE, marked 'York Conference' in the top left corner.

The final date for booking RESIDENTIAL accommodation (which must be accompanied by £6 deposit) is 28 February 1993. Those wishing to attend on a NON-RESIDENTIAL basis should also write in to be placed on the waiting list.

Accommodation will be in single rooms in WENTWORTH College, arriving at teatime on Friday 3 September - departing before lunch on Sunday 5 September. A self-service dinner and a packed lunch are available as are tea and biscuits at appropriate time.

Final prices, location map and detailed programmes will be sent after 1 March 1993. There will, of course, be a bookstall, and any offer of slides for evening viewing will be gratefully received.

Provisional programme

Friday	5.00pm	arrival and registration
	7.00pm	Dinner
	8.00pm	Talk and Slides ?Yorkshire flora
Saturday	9.00am	Scarce species - results, trends, publication of atlas
		Aquatic atlas
		New National atlas
		Census catalogue
		Rosa handbook
	1.30pm	Excursions
		a) Roses
		b) Aliens
		c) v.c. recording
Sunday	9.00am	Established aliens
		Computer keys for difficult groups

Saturday evening will be left free for discussions, informal workshops and slides.

DAVID A. PEARMAN, The Old Rectory, Frome St Quinton, DORCHESTER, Dorset DT2 0HF

A GARDEN WEED SURVEY

Alderny was not included in the recent BSBI Arable Weed survey. It now has a very limited agricultural industry and despite the small use of herbicides, only a handful of the arable weeds included in that survey are found here, partly due to the restricted flora totalling under 900 species, and partly due to better seed cleaning techniques for those grain crops which are still grown. In view of this a survey of the 'Weed' population of a small garden has been made.

The island is approximately 3.5 miles long, 1.5 miles wide at its widest point, and about 9 miles off the French coast. It consists mainly of a high plateau containing most of the arable land, at about 280 feet bounded on the south, and half of the west sides, by sheer cliffs, and with a comparatively narrow band of flat land roughly on the 30 foot contour on the east, north and half the west sides, much of it fixed sand dunes. A steep, mainly north-facing slope connects the two parts. The small town of St Anne is in a slight hollow, roughly in the centre of the island, and has spread down the north-facing slope in recent years.

Only a small part of the agricultural land, which is still based on the open-field system, with no hedges and few boundary walls, is now farmed. Difficulties of transporting fresh produce out of the island caused the cessation of most agricultural and horticultural production in the 1960s, and present day crops consist mainly of barley, oats, and grass, grown to feed the island's two dairy herds, with an acreage of potatoes for both stock feed, and local sale, which is not large enough to make the island self-sufficient in this commodity.

There are only a few cattle kept for meat, and a single small flock of sheep. One of the two local greengrocers cultivates about 5 acres, mainly for green vegetables and salad crops, and sells the produce in his own shop. There are a number of plastic greenhouse tunnels erected in this area.

The island flora includes about 20 species in the British Red data book, some of them quite common here, and two plants almost unique to Alderney, *Geranium sub-molle*, the Alderney Geranium, and *Limonium normannicum*, the Alderney Sea-lavender. It was the last known site for *Euphorbia pepelis*, Purple Spurge, now thought to be extinct.

The author has spent the last seven years studying the flora, published a small *Flora of Alderney, a Check-list with notes* in 1988, and has personally added to the earlier lists about 80 plants not previously recorded, most of them obviously present for some years, and simply not noticed or at least noted.

The author's own garden has yielded the lists which follow. The plot, about 50 × 25m, is situated about 150-200m from the shore, near the NW corner of the island. It is bounded to the east and south by other residential property, to the west by a public road, with open 'Green Belt' countryside beyond, including a nearly derelict Watermill and farm, no longer used for either purpose. To the north the garden is separated by a public road from fixed sand dunes. The stream which drove the mill, discharges onto the sand dunes immediately in front of the house, and about 100m back from the shoreline. A pond existed here for centuries which held the island's only native freshwater fish, the Stickleback, and the principal stand of *Cyperus longus* (Galingale), but water extraction higher upstream, for the island's domestic needs over the last fifteen years or so, gradually reduced this to a marsh, still with *Nasturtium officinalis*, *Apium nodiflorum*, *Epilobium hirsutum*, *Polygonum amphibium*, *Mentha aquatica*, and several aquatic grasses. In the last three years almost total extraction of the available water flow has caused this area to dry almost completely. The sedge and aquatic grasses have now virtually disappeared from the area, and only the Water-cress, Willowherb and Water Mint remain, along the edges of the channel containing the remaining trickle of water. The *Polygonum* still grows but has reverted to the land leaf-form. The rest of the area, which must be still very moist below, has been colonised principally by a lush growth of *Holcus lanatus*, *Agrostis stolonifera*, and *Ranunculus repens*.

Glaucium flavum, *Malva sylvestris*, various Compositae including *Carduus tenuiflorus* in some quantity, several common vetches, and Lucerne in several colour forms, *Solanum dulcamara*, *Galium aparine*, Brambles and *Heracleum sphondylium* are to be found round the outer parts of the site, with *Anacamptis pyramidalis* and *Salvia verbenaca* round the former drier edges where rabbits keep the turf shorter. In the part nearest the sea, it has become a regular site for *Calvatia gigantea*, the Giant Puffball, and this year about two dozen specimens over 50cm in diameter, weighing between 7-8kg, and several smaller ones in the 3-4kg range have appeared there.

The part directly in front of the house was worked from 1940 to 1990 as a sand quarry, reaching to barely 20m away from the road, and is now partly backfilled with hoggin brought from a large area of Victorian quarry spoil about a mile away, recently bulldozed to create sites for a

States' housing project. This is scarcely colonised yet, except round the edges, (see *BSBI News* 52, p.26).

The beach beyond is shingle, mostly up to 2cm diameter, with some emergent sandstone and diorite rocks. At and above H.W.M. it is well colonised with *Crambe maritima*, *Cakile maritima*, *Glaucium flavum*, *Eryngium maritimum*, *Honkenya peploides*, *Atriplex prostrata*, *Atriplex laciniata*, occasionally *A. glabriuscula* and *Euphorbia paralias*.

The garden area was formerly pasture land, developed during the German Occupation from 1940-44 into a camp of sectional huts to house slave-workers, mainly Russians. This was evacuated and burnt by the Germans in 1944 just after D-Day. It was cleared, except for some concrete bases still remaining in some gardens, and reverted to pasture in 1946-8. The houses now on the site were mostly built 11-15 years ago, with the author's house at the NW extremity one of the last to be built.

As a protection from the savage, salt-laden, E & NE gales, frequent in winter, this garden has been surrounded by a belt of evergreen trees and shrubs, now about 4-5m high, and 2m wide, on three sides. About half are *Pinus radiata*, and the remainder a mixture of *Pinus pinaster*, *Eleagnus ebingei*, *Euonymus japonica*, *Escallonia rubra*, *Chamaecyparis lawsoniana*, × *Cupressocyparis leylandii* and *Quercus ilex*. Little grows beneath these although the pine needles are cleared regularly. The north side is planted mainly with evergreen or semi-evergreen shrubs, various species of *Hebe*, with *H. × franciscana* the most frequent, *Rosa rugosa*, *Ligustrum ovalifolium*, *Rhamnus cathartica*, *Senecio greyii*, *Lycium barbarum*, and *Griselinia fulvia*, all trimmed to about 4 feet to allow a view of the shore from the house, with *Salix tortuosa* *S. viminalis*, *S. alba*, *Cyperus longifolius*, *Carex pendula* and *Iris pseudacorus* flourishing in a damp corner.

The soil is slightly alkaline from sea shells, with pure sand at about 2 feet down. All along the northern side, inside the shrub belt, there are two fish ponds formed from thick plastic liners, overflowing into a shallow ditch lined with thin plastic to retain the water, which is continuously running at low volume, piped from a tiny spring-fed stream above the house to the SW. The thin plastic, now penetrated in places by the roots of the various plants in it, allows the water to escape through the sand, and only overflows at the surface for a short time after periods of heavy rain.

The whole plot is divided roughly into two halves, the northern, seaward part consists of a 'lawn' mown from the original field grass, with narrow flower borders against the house, rockeries, flowering shrubs, and a small herb garden. The other part contains the bungalow and garage, a swimming pool surrounded by paving, and gravelled banks, with some raised flower beds on the southern side. The sheltering trees are here backed all round by walls, 2m high concrete blocks to E & S, and 1.5m natural local sandstone to the west.

Alderney has little frost, and midday temperatures below zero are extremely rare. The maximum temperature recorded since 1957, was 28.2°C in September 1990, but it is rare for maximum temperatures to exceed 20° for more than three days consecutively, at any time. The lowest ever recorded was -9° in January, 1987, but in context the average of the lowest January temperatures recorded over a 35 year period is +0.05°C. The average daily maximum temperature recorded throughout the year since 1957 is 13.81°, and the average nightly minimum 9.42°. Annual rainfall now averages about 600mm.

These conditions allow many Mediterranean species at more or less their northern limit, and other natives of warmer climes, to survive and set viable seed. In the context of the garden under review, seedlings of *Eleagnus ebingei*, *Escallonia rubra*, *Cyperus longifolius*, *Hebe × franciscana*, *Lavatera olbia* and *Carpobrotus edulis* are regularly found

A yellow *Sisyrinchium* probably *S. micranthum*, *Briza maxima*, *Oenothera stricta* and *Echium pininiana* which latter produces flowering stems up to 19 feet high, seed themselves so vigorously as to be a nuisance. *Pinus radiata*, although much planted, does not seem set seed in the island.

About half the total area of the 'lawn' is composed of grass, (mainly *Agrostis stolonifera*), the remainder roughly equal parts of *Achillea millefolium*, *Bellis perennis*, and an assortment of *Geranium molle*, *Erodium cicutarium*, *E. moschatum* and *Ranunculus* spp. including *R. parviflorus*, *Diplotaxis tenuifolia*, *Hirschfeldia incana*, *Medicago* spp., *Silene dioica*, *S. latifolia* ssp. *alba*, *S. gallica* var. *quinquevulnera*, and various Compositae. There is one large patch of *Lotus corniculatus*. The large amount of Yarrow has encouraged the growth of *Orobanche purpurea* and the odd plant of *Spiranthes spiralis* and *Anacamptis pyramidalis* appear regularly. There is very little cultivated ground, and some of these wild species are encouraged by selective weeding and mowing.

In the following lists frequency of occurrence is noted by the usual letters, the taxonomic sequence used is that of C.T. & M., and the plants are separated into those which have appeared spontaneously, from obvious nearby sources, those casuals which have arrived from no obvious

nearby source, probably through the agency of birds, and those plants included in local wild and naturalized flora, deliberately introduced from local sources, which have naturalized themselves and spread.

Natural Colonisers

Ranunculus acris (o), *R. repens* (f), *R. bulbosus* (o), *R. parviflorus* (r), *R. ficaria* (o), *Papaver rhoeas* (o), *P. dubium* (o), *P. hybridum* (o), *P. somniferum* (o), *Glaucium flavum* (o), *Fumaria muralis* ssp. *boraei* (c), *Sinapis arvensis* (o), *Hirschfeldia incana* (o), *Diploaxis tenuifolia* (o), *Coronopus didymus* (f), *Capsella bursa-pastoris* (o), *Cochlearia danica* (o), *Lobularia maritima* (a), *Cardamine hirsuta* (c), *Barbarea verna* (c), *Nasturtium officinalis* (f), (in the water filled ditch), *Matthiola incana* (c), *Cheiranthus cheiri* (r), *Alliaria petiolata* (r), *Sisymbrium officinale* (r), *Viola odorata* (f), *V. riviniana* (f), *Hypericum tetrapterum* (f), *Silene dioica* (r), *S. lafolia* ssp. *alba* (o), *S. x intermedia* (o), *S. gallica* var. *quinquevulnera* (o), *Cerastium fontanum* (o), *C. glomeratum* (f), *C. diffusum* (o), *C. semidecandrum* (f), *Stellaria media* (f), *Sagina apetala* (f), *S. procumbens* (f), *S. nodosa* (o), *Arenaria serpyllifolia* (f), *Spergularia rubra* (r), *Polycarpon tetraphyllum* (c), *Chenopodium album* (o), *C. ficifolium* (r), *Beta vulgaris* ssp. *mariüma* (r), *Malva sylvestris* (f), *Lavatera arborea* (r), *Geranium dissectum* (o), *G. molle* (c), *G. robertianum* (c), *Erodium cicutarium* (f), *E. moschatum* (o), *Oxalis corniculata* (c), *O. exilis* (c), *O. articulata* (o), *O. incarnata* (r), *Acer pseudoplatanus* (f), *Ulex gallii* (r), *Lupinus arboreus* (r), *Vicia hirsuta* (r), *V. sativa* (o), *V. sativa* ssp. *nigra* (o), *Ononis repens* (o), *Medicago lupulina* (f), *M. arabica* (c), *Trifolium repens* (o), *T. dubium* (o), *T. scabrum* (o), *T. micranthum* (r), *T. pratense* (r), *Lotus corniculatus* (o), *Lotus subiflorus* (o), *Anthyllus vulneraria* (o), *Rubus fruticosus* (f), *Potentilla reptans* (f), *Aphanes microcarpa* (r), *Prunus spinosa* (o), *Crataegus monogyna* (o), *Sedum anglicum* (r), *S. album* (f), *S. acris* (f), *Umbilicus rupestris* (f), *Epilobium hirsutum* (f), *E. parviflorum* (o), *E. ciliatum* (o), *E. tetragonum* ssp. *lamyi* (r), *E. adenocaulon* (o), *Oenothera stricta* (a), *Hedera helix* (? ssp. *hibernica*) (f), *Anthriscus sylvestris* (f), *Foeniculum vulgare* (o), *Apium nodiflorum* (o), *Heracleum sphondylium* (f), *Daucus carota* (f), *Mercurialis annua* (c), *Euphorbia lathyris* (r), *E. helioscopia* (c), *E. peplus* (c), *E. portlandica* (f), *Polygonum aviculare* (r), *P. arenastrum* (r), *P. persicaria* (r), *P. lapathifolium* (r), *Rumex acetosella* (c), *R. acetosa* (f), *R. crispus* (o), *R. obtusifolius* (o), *R. sanguineus* (o), *Parietaria judaica* (c), *Soleirolia soleirolii* (o), *Urtica urens* (r), *U. dioica* (f), *Armeria maritima* (o), *Anagallis arvensis* (f), *Borago officinalis* (f), *Convolvulus arvensis* (c), *Nicandra physalodes* (r), *Solanum nigrum* (f), *Datura stramonium* (r), *Cymbalaria muralis* (c), *Digitalis purpurea* (o), *Veronica chamaedrys* (o), *V. arvensis* (f), *V. hederifolia* (c), *V. persica* (o), *Orobancha purpurea* (o), *O. minor* (o), *Mentha aquatica* (c), *Stachys sylvatica* (f), *Lamium purpureum* (f), *Plantago major* (r), *P. lanceolata* (f), *P. coronopus* (r), *Galium aparine* (c), *Lonicera periclymenum*, & *L. periclymenum* var. *quercifolia* (f), *Valeriana locusta* (c), *Centranthus ruber* (o), *Senecio jacobae* (f), *S. vulgaris* (r), *Petasites fragrans* (o), *Calendula officinalis* (c), *Pulicaria dysenterica* (o), *Gnaphalium uliginosum* (f), *G. luteo-album* (f), *G. undulatum* (o), *Conyza canadensis* (f), *Bellis perennis* (a), *Achillea millefolium* (a), *Tripleurospermum inodorum* (o), *Matricaria matricarioides* (f), *Cirsium vulgare* (r), *C. arvense* (r), *Hypochoeris radica* (f), *H. glabra* (o), *Leontodon autumnalis* (f), *Picris echioides* (r), *Tragopogon pratensis* (f), *Lactuca serriola* (f since 1988), *Sonchus arvensis* (o), *S. oleraceus* (o), *Taraxacum* spp. (o), *Hyacinthoides non-scripta* (r), *Allium triquetum* (a), *A. subhirsutum* (r), *Juncus effusus* (o), *J. bufonius* (c), *Luzula campestris* (o), *Gladiolus communis* (G. *byzantinus*) (r), *Spiranthes spiralis* (r), *Anacamptis pyramidalis* (r), *Carex arenaria* (c), *C. hirta* (r), *C. pendula* (c), *Festuca rubra* (f), *F. ovina* (o), *Lolium perenne* (o), *L. multiflorum* (r), *Vulpia bromoides* (c), *Desmazeria rigida* (f), *D. marina* (r), *Poa annua* (a), *P. infirma* (f), *P. pratensis* (f), *P. trivialis* (f), *Dactylis glomerata* (c), *Cynosurus cristatus* (r), *Briza maxima* (a), *Bromus sterilis* (a), *B. hordeaceus* (o), *Elymus repens* (o), *E. farctus* (c), *Hordeum murinum* (o), *Arrhenatherum elatius* (c), *A. elatius* var. *bulbosum* (c), *Aira praecox* (f), *A. caryophylla* (c), *Holcus lanatus* (o), *Agrostis stolonifera* (a)

2. Casuals

Ribes sanguineum (o), *Dracunculus vulgaris* (2 plants appeared in 1990).

3. Introduced plants

a. In the pond/ditch system

Azolla filiculoides, introduced to the garden from an island quarry deep-water reservoir, this reproduces so freely by both spores and vegetative division, on the approximately 10-12 sq metres of water, that some 10-15 wheelbarrow loads a year have to be removed; *Ceratophyllum submersum*

also reproduces freely; *Crassula helmsii* introduced from the same quarry is contained in a small area; *Primula veris* planted at the margin of the ditch is surviving and spreading very slightly in soil of the wrong pH; *Hippuris vulgaris*, introduced from the only large shallow quarry pond is rampant, and has to be frequently reduced; *Lagarosiphon major* and *Myriophyllum aquaticum*, and *Potamogeton natans*, all from the same source as the *Azolla* both do well; *Iris pseudacorus*, a single root introduced 5 years ago from a former marsh, since dried up, has formed two very large clumps; *Cyperus longifolius*, introduced from a single greenhouse potplant about 0.5m high, has formed several massive clumps, grows up to 2m high and seeds vigorously, even in the adjacent grass; *Nymphaea alba* spreads by vegetative means, whilst *Nymphoides peltata* spreads by both runners and seeds. Both were introduced from a static water source where they had possibly been planted about 20 years before.

Zantedeschia aethiopica flourishes in the margins; *Carex pendula* and *C. hirta*, frequent along the banks of another nearby stream, and *Nasturtium officinalis*, *Apium nodiflorum* and *Epilobium hirsutum* colonised the system from the pond on the sand dunes in front of the house before it dried up.

b. In the garden generally

Agrostemma githago has now spread from the garden to the dune area; *Carpobrotus edulis* which is common all over the island; *Mirabilis jalapa* seeds freely, and overwinters as tubers.

Oxalis articulata, a white form was found growing up through the asphalt road at the base of the garden wall, and a piece brought in and planted. This has spread and seeded and remains white; *Petroselinum crispum* a single plant from seed has seeded itself well, and the original plant, now 4 years old appears to be evergreen and perennial; *Euphorbia cyparissias* seeds freely as well as spreading by runners. It has to be drastically curbed; *Quercus ilex* now about 12 years old is beginning to set seed; *Primula vulgaris*, a couple of plants in the hedge have spread considerably by seed, and produced a white sport; *Echium pininana* already noted above; *Nicandra physalodes* and *Datura stramonium* the subject of the note in *BSBI News*, 52. Seeds brought from those plants germinated, and both appear sporadically; *Hebe ×franciscana*. A hedge of this along the seaward boundary was obliterated by the 1987 hurricane, but over the next three years many seedlings emerged, and plants from these are now up to 1.5m; *Thymus praecox* came in with gravel from the edge of the beach; *Erigeron glaucus* common on grassy banks all round the island, spreads widely from small pieces; *Eupatorium cannabinum*, abundant in Sark, has spread from a seed head brought back; *Tanacetum parthenium*, only infrequently found in the island in the wild has formed a large clump from a single runner; *Scilla peruviana* grown from seed from a single plant found on one of the sandy commons has itself seeded and spread; *Agapanthus praecox* in both white and blue colours, seeds vigorously; *Allium schoenoprasum* seeds itself, as does *A. vineale*; *Cordyline australis* planted all over the island on commons, and in the churchyard about 1910-30, and in gardens, was cut to the ground in the 1987 hurricane, but almost all plants sprouted from the base and flowered two years later. Seedlings are regularly found nearby; *Tritonia ×crocsmiflora* found in clumps all over the cliffs has spread well in the garden by both seed and bulblets; *Lagurus ovatus*, a single head from a dried flower arrangement was dropped on the gravel area, and the grass has now spread throughout the garden also appearing in the lawn. It has also colonised the dune area in front of the house. It is common in Jersey, but not yet found in the wild elsewhere in Alderney.

Many of the plants first appear in the gravelled areas. The more attractive local wild-flowers are subsequently encouraged by selective weeding.

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

IS A PCW JUST AS USEFUL AS A PC?

May I use a small bit of space to correct a widespread misconception?

It is perfectly cheap, quick and easy and there are a number of methods, to convert ASCII text files from CP/M (i.e. PCW) 3" discs to MS-DOS, PC 3½" discs and vice-versa.

PCW users are quite aware that they cannot, and do not want, to run Advanced Revelation on their home PCW.

PCW users stick to their machines, not only because they cannot afford a PC but because over some years they have built up a useful library of programs and archive files, many nothing to do with botany, (even botanists can have other hobbies) which would cost far more than the hardware to replace.

Given the simplicity of the conversion facility, a PCW is perfectly capable of storing one person's botanical records in a neat, accessible and 'Pink Card' style manner. When I am dead, anyone who tries to read my 'hard' card index will appreciate finding the same records on PCW 3" discs.

Now can I, and presumably all other BSBI PCW users, stop being 'sent to Coventry' please?

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EQUISETUM × *FONT-QUERI* IN SOUTH HAMPSHIRE

On 5 August 1991 I found an unusual *Equisetum* at South Baddesley, South Hampshire (v.c. 11), grid reference SZ/350.967. At the time it remained unidentified, as I was using Clapham, Tutin and Warburg (ed. 2, 1962), which does not cover all the *Equisetum* hybrids now known in Britain.

I came across the form again on 28 May 1992. This time it was even more clearly unusual, since it had cones on the vegetative shoots, though it did not appear to be any of the species which normally have such cones. By now I had Stace's *New Flora*, and from this it seemed to be *Equisetum* × *font-queri* Rothm., except that Stace says this has not been found south of Worcestershire. I therefore sent specimens to Dr Chris Page, who confirmed that they were indeed *E. ×font-queri*, a new vice-county record and by far the most southerly site known in Britain.

The site is a very ordinary roadside verge and hedge. One of the parents of this hybrid, *E. telmateia*, is common in the same location, though not usually within a metre or two of the hybrid. The other parent, *E. palustre*, has not been found for certain. *E. arvense* is occasional. The colony extends from the T-junction at SZ/351.967 westwards along the roadside for several hundred metres, apparently not continuously. The hybrid has also been found by a small stream running parallel to and just north of the road.

Morphologically the specimens are variable. Some resemble the form shown in Stewart (1990), with long branches and the cone well separated from the topmost sheath. Others have shorter, often more densely packed branches. In many specimens the topmost sheath extends well up the cone. Usually the plants are obviously different from 'normal' *Equisetum*, but with unmistakably 'something of *E. telmateia*' about them. They are attractive plants, though perhaps less so than *E. telmateia*, a fine specimen of which (not necessarily a large one) is to my mind one of the most handsome members of the British flora.

I am not aware of any proposed developments threatening the site. I am grateful to Dr Page for identifying specimens and for suggesting this note.

Reference

STEWART, O.M. (1990). A new record of *Equisetum* × *font-queri* in Dumfriesshire. *BSBI News*, **54**: 18-20.

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WHEN DOES BUTCHER'S-BROOM START TO FLOWER?

Bentham & Hooker said 'spring'. The old RHS Dictionary and McClintock & Fitter's *Pocket Guide* both said March to April. CTW and Fitter, Fitter & Blamey (*Wild Flowers of Britain and Northern Europe*) both say January to April. Stace doesn't give flowering times! For the past 15 years I have

been checking the first flowering date of a naturalised colony on a bank outside a garden in Bledlow, Bucks. When in both 1987 and 1988 I recorded January 3, I tried December, and got December 28. 1988. Then in 1989-91 it was November 18, 8 and 8 respectively. So in 1992 I tried October, and found *Ruscus aculeatus* flowering on the 10th. When does it start to flower? Or does it go on right through the year, with a main flowering period, somewhat like *Ulex europaeus*, in late winter and spring? Or could naturalised plants have a different flowering period from wild ones?

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THE EARLIEST FIELD BOTANIST

No : Thomas Willisel was nowhere near to being the earliest field botanist (*BSBI News* 61: 8), let alone the earliest one in Britain.

So far as we know, the latter honour belongs to Henry Daniel, a Dominican friar who flourished in the 1370s and whose writings contain several localised records of British wild plants. John Harvey in his recent book, *Mediaeval Gardens*, devotes a special appendix to him. Another monk, Thomas of Sarepta (1297-c.1378), is known to have formed a reference collection of dried herbs - it is probably over-dignifying it to claim it as a herbarium - some of which were gathered in Britain (Sarton 1948). And for all we know there may have been individuals even in Roman Britain who pursued the subject recreationally.

Thomas Willisel however, may well have been the earliest professional botanical collector (as opposed to professional herb collectors, who had of course been operating for centuries). I hardly think that counts as much of an honour, though : much more meritorious, surely, were the first people to pursue field botany on an entirely amateur basis, without the pecuniary motive that presumably at least in part impelled anyone whose livelihood depended on herbalism or medicine. Disregarding John Aubrey's uncle, the Somerset landowner Henry Lyte, whose botanical achievements appear not to have extended beyond producing an English edition of Dodoens' herbal, we must clearly give that palm to the Petersfield botanist John Goodyer, who was a manorial steward (the equivalent of a land agent) by life-long profession, for which he would have had a training that was largely legal. Born in 1592, he was botanically active a full generation before Willisel; and he was not merely a 'curious searcher of plants' (in Parkinson's words), but also made meticulous notes about each new species he encountered, carefully localizing his finds. The first records of quite a number of British plants stand to his credit as a result. Unfortunately he never published any of these himself, content to leave that to others (most notably Thomas Johnson), and the full extent of his work for long remained unknown - and indeed unsuspected. We should still be unaware of it today but for the heroic detective-work of the great Oxford historian of science, R.T. Gunther, who around the time of the First World War succeeded in piecing together much of Goodyer's life from miscellaneous documents whose backs Goodyer had luckily made use of as scrap paper on which to make his botanical notes. Gunther's book was published by private subscription and unfortunately seems to have found its way into only very few libraries; but it should be much better known, for apart from being a fascinating read, it is a gold-mine of early records - for many parts of Britain.

References:

- Gunther, R.T. (1922). *Early British Botanists and their Gardens*.
 Harvey, J. (1981). *Mediaeval Gardens*.
 Sarton G. (1948). *Introduction to the History of Science*, vol. 2.

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A VERY EARLY FIELD BOTANIST

Further to Jill Lucas' Biblical references (*BSBI News* 61), but on a different subject, it would appear that Thomas Willisel was not the earliest field botanist, as suggested elsewhere in the same issue. According to 1 Kings 4: 29 & 33, 'God gave Solomon wisdom and very great insight He described plant life, from the cedar of Lebanon to the hyssop that grows out of walls.' (Adam, by contrast, named only the fauna of the Garden of Eden.)

On a more whimsical note, I recall the existence in Norwich Cathedral of a memorial tablet for a man with the most wonderful name of Field Flowers! Another tablet commemorates a man named Osberto Parsley.

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DISTRIBUTION OF WILD ROSES IN V.C. 35

When I started mapping the county flora in 1985, it soon became obvious that some critical groups would be a problem. As a self-taught botanist I had my favourite families and some I ignored. Roses had been among the latter. Though *Rosa arvensis* was easy and widespread (see map) *R. canina*, almost as widespread, was not. Too often it seemed extremely variable and hybridized with other species. The glabrous plants were recorded as *R. canina* and the similar ones differing only in the hairy undersides of the leaves were recorded as *R. dumetorum*. Where to put those roses that had varying numbers of glands on the leaves puzzled me. While the bulk of the 105,000 records were being mapped other species were noted as *Rosa* agg. and set aside until time allowed for their study.

In previous floras *R. mollis* was not recorded and yet I became convinced that this was the most common of the hairy roses. It was at this stage that I decided to seek the assistance of the Reverend Gordon Graham. He responded with patience, tolerance and with considerable kindness in pointing out the features I should be concentrating on. In spite of being at the southern limit of its range *R. mollis* was one of the most common of the uncommon roses of the vice-county. I find it hard to detect the slightly resinous smell. Unlike *R. rubiginosa*, which scents the air with its 'sweetbriar' fragrance for many metres around the bush, especially on a warm, calm autumn evening. The glands on its leaves, fruits and pedicels rather than its flowers produce this. So far only one bush of *R. sherardii* and three of *R. tomentosa* (two in one tetrad) have come to light. Another fragrant rose, with a sweet apple scent, found, so far, in only two tetrads is *R. micrantha*. I need to bruise its leaves to detect it. The prickles and tiny pin-like glands are distinctive.

For a time I thought I would never find *R. stylosa*. Once found, it or *R. ×andegavensis*, its hybrid with *R. canina* seemed to crop up whenever I went searching. It is probably the most common of the less common roses. It is certainly widespread in the eastern half of the county especially on the carboniferous limestone. *R. pimpinellifolia* is easy to recognise but I doubt it is native in v.c. 35. The first records were those of bushes planted to enhance factory entrances or housing estates. The site in SO/2.0.P is nowhere near house or factories but it is within 100m of another bush which bears tiny double-pink blossoms.

One rose that has so far escaped me is *R. obtusifolia*. All old NMW herbarium records have been declared doubtful or in one case *R. ×dumetorum*, its hybrid with *R. canina*, Gordon Graham has confirmed the same hybrid but from a different tetrad and its hybrid with *R. stylosa* in another.

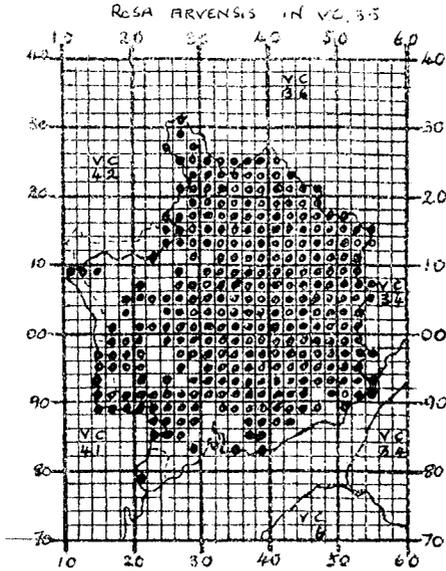
Hybrids abound, as do species introgressed to varying degrees by other species which probably causes the variation and problems that have confused me and resulted in the barrage of fresh specimens, dealt with expeditiously by Gordon Graham. My thanks also to Bob Fraser and David Lewis, who report any less common roses they meet with in their wanderings.

On the v.c. map (see page 15) roses found in the shaded tetrads are as follows;

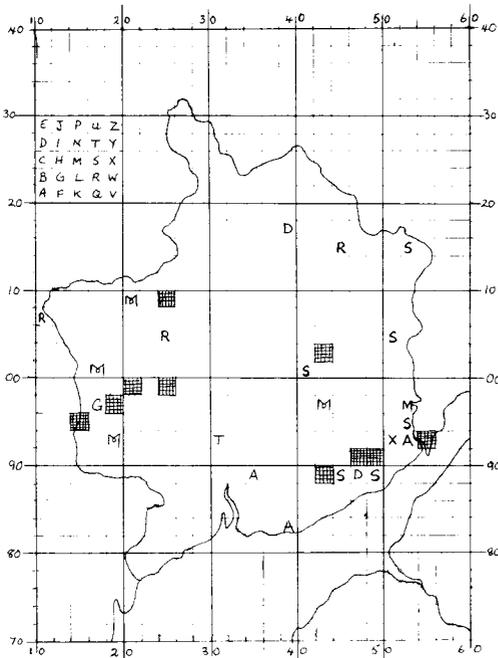
ST/4.8J - A & S; ST/1.9M - A & D; ST/1.9T - G & R; ST/1.9Y - A, M & S; ST/2.9E - C, D M & S; ST/4.9Q - A & S; ST/4.9V - A, M & S; ST/5.9L - A, D & S; SO/2.0P - M, P & R; SO/4.0G - R & T

A problem that will face future rhodologists will be the mixing of genes between the native roses and those planted around new housing estates and new road verges.

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VC 35 MONS.



- A *ROSA X ANDEGAVENSIS* BAST
- X *R. X AVRAYENSIS*
- C *R. CAESIA* Ssp *GLAUCA*
- D *R. X DUMALIS*
- G *R. GLAUCA*
- M *R. MICRANTHA*
- M *R. MOLLIS*
- X *R. OBTUSIFOLIA* X *R. STYLOSA*
- P *R. PIMPINELLIFOLIA*
- R *R. RUBIGINOSA*
- S *R. STYLOSA*
- S *R. X SHOOBREDII*
- S *R. SHERARDII*
- T *R. TOMENTOSA*
- ▣ MORE THAN ONE ROSE SPECIES

Distribution of some wild roses in v.c. 35

MORE ON SCANDIX

In *BSBI News* 61, the Rev. Addington records the complaint of an East Suffolk farmer that with *Scandix* 'it is impossible to separate the needles from the corn'.

This arable weed used to be common in West Sussex, though is now scarce. Farm workers called it 'Puck-needles', as Grigson also records in *The Englishman's Flora*. As an old steam-threshing contractor I recall the simple expedient we used to separate the needles on our machines. Where the grain drops on to the top sieve we placed a plain steel sheet, which resulted in the needles coming on to the perforated area in a horizontal position and thus 'tailing over' to waste, along with the short straws and other rubbish.

Incidentally, grain and seed merchants use machinery which can take out any impurities and I am sure this problem would present no difficulty to them.

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THE FLORA OF SHERKIN ISLAND AND OTHER ISLANDS OF ROARINGWATER BAY, WEST CORK (H3)

Sherkin Island Marine Station is a privately funded institute near Baltimore in Co. Cork. For nearly 20 years, using mostly volunteer staff, the station has monitored littoral, sublittoral and plankton communities in Roaringwater Bay and adjacent coasts and seas. It is particularly well-known for the study of Red Tides. There has also been a good deal of work on the terrestrial flora and vegetation of Sherkin island.

The director of the Station, Matt Murphy, has asked me to bring together ten years of observations and surveys on the flora and vegetation of Sherkin and the other islands of Roaringwater Bay, with the aim of producing a local Flora. I have been visiting Sherkin since 1986, following in the footsteps of my school biology teacher, the late Oleg Polunin, who recorded the flora from 1947 to 1951. During a two week visit at the end of this summer, Karen Clarke (from the USA, who had been studying the flora since March), and myself were able to relocate almost all the 30 or so rare Irish plants that occur on the islands, as well as finalising an inventory of the flora. During the next six months I shall be editing the Flora, which will include accounts and maps of the vegetation. It should be noted that no Flora of Co Cork has appeared for over 100 years.

I shall therefore be grateful if any BSBI member who has plant records from Sherkin, Cape Clear or any of the smaller islands of Roaringwater Bay could let me have appropriate information. The Flora will be quite detailed, so acknowledgement for individual records will be given in the text. We have been astonished by the richness of Roaringwater Bay. The flora list stands at about 500 species, many of them rare Irish natives or interesting naturalised species or weeds, including *Rumex pulcher*, *Lotus subbiflorus*, *Tuberaria guttata*, *Viola lactea*, *Kickxia elatine* and *Artemisia absinthium*. The Flora is due to appear in the early summer of 1993 and will be available to BSBI members as a pre-publication offer.

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IS COMMON TOADFLAX DOOMED?

Common Toadflax (*Linaria vulgaris*) is abundant in the hedgebanks of Pembrokeshire, flowering when most other species have gone to seed, beautiful to the human eye and bountiful in its supply of nectar to *Bombus* species. But it is suffering.

I first noticed *Bombus lucorum* and *B. terrestris* biting holes in the spur of *L. vulgaris* in the late 1980s and I am sure that many other members have witnessed this, these two *Bombus* being addicted to such 'criminal activities' on a whole range of wildflowers. By the summer of 1990 I deemed this activity worthy of further study and was at first surprised to find that few or no flowers had been holed in July. But by late July of that year holing had started and by September in one

particular fallow field where *L. vulgaris* was abundant, all flowers had had their spurs holed. Presumably in the earlier part of *Linaria's* flowering season there are sufficient other easier and more abundant flowers to occupy *Bombus* whereas by late September there was often nothing outside gardens. All this 'anti-social' (anti-floral) activity *Linaria* takes in its stride as there are sufficient other visitors to the flowers like *Bombus pascuorum* and *Plusia gamma* obtaining nectar by legitimate means. But matters have now taken a more serious turn!

I noticed that some flowers appeared to be shrivelled in late July 1990 and assumed that this was due to drought at the end of a good summer. By the late summer of 1991, however, 80-90% of plants had become affected, after a more or less damp summer. Closer inspection revealed quite serious distortion of the plants. Growing points were often browned, or even blackened, and side branches bushed out as if galling had occurred. The side branches often themselves became 'galled'. Such plants became tall, much-branched and without flowers, any flower buds becoming browned and remaining small. On the rare occasions when flowers did develop and manage to produce seed, the seeds were black.

This disease has reached epidemic proportions. A recent visit to the fallow field near St David's which used to be a glorious display of common toadflax, revealed no flowers at all. The disease has affected plants growing elsewhere, as in my garden, where I only grow wildflowers. Every plant here is without flowers. In addition of course vegetative propagation cannot help matters.

Would any member who is a plant pathologist or who knows one, please let me know what is happening or at least give me a clue or a reference.

G. KNIGHT, 12 Ffordy Felin, Trefin, HAVERFORDWEST, Dyfed SA62 5AX

ARCHIPELAGOS REVISITED

Since my idea of 'islandised squares' for an archipelago was published in *BSBI News* 60, I have had to reply to criticism that I don't know anything about biological recording. For the last 30 years I have been carrying out habitat surveys and vegetation analyses and have been working very hard towards setting up a local BRC, but the criticism has made me look into the problem even further, with interesting results.

Orkney, including Sule Skerry, manages to get itself into 45 10km map squares. Not one of those 10km squares is all land. 12 10km squares have less than 5% land, (one has 0.06%) two of these 'under 5%' join Orkney to Caithness and one actually includes about 2% land in Caithness; (one, however, is Sule Skerry which has no adjoining square with land and must be mapped separately, if at all). There are 7 10km squares with less than 20% land which spread themselves over 2, 3 or 4 separate islands. There are four islands with less than 7000 has. each (two much less) which spread themselves over 4, 3 or 3 different 10km squares.

The total land area of Orkney is under 10 10km squares. To record, for a national dot-map Atlas, every one of these 45 map squares would falsify distribution and frequency records 4½ times. Even my 25 'islandised squares' gives 2½ times the actual land area. I am talking about National distribution maps. For specific biological recording, obviously even the 0.06% bit mentioned above may need separate recording, but to do so merely to get an extra dot on a national map isn't biological recording, it is twitching.

I can also understand the need to show the exact distribution of coastal species in the UK mainland by not lumping them into the nearest 100% land square, but every square in Orkney has some coastline so that does not apply here.

Finally, I would heartily support John Cannon's plea for permanent archival preservation, although, in the absence of a computerised local BRC, that is not too easy or foolproof, as some of the Scarce Species printouts show.

ELAINE R. BULLARD, Toftwood, Kirkwall, ORKNEY KW15 1SB

GROWING *OROBANCHE PURPUREA* Jacq. FROM SEED

In October 1990 the large population of *Orobanchae purpurea* Jacq., seen flowering in June 1990 at Maryport Harbour SSSI, was checked for seed set. The plants had indeed set large quantities of seed and, with the permission of the landowner, one seedpod was taken.

A plastic seed tray (Ward 355 × 215mm) was filled with seed compost to a depth of 43mm. The seed compost used was Chempak loamless seed compost made by the method prescribed on the seed base packet which is: 12 gallons of peat and 4 gallons of horticultural sand mixed with one pack (525gm) of Chempak seed base. The seed base formulation is:

N.P.K. fertiliser	2.3:3.6:2.7	
Nitrogen		2.3%
Phosphorus pentoxide (P ₂ O ₅)		3.6% (P 1.6%)
Potassium oxide (P ₂ O)		2.7% (K 2.24%)
Magnesium oxide (MgO)		4.0% (Mg 2.40%)
Iron (Fe)		0.32%
Manganese (Mg)		0.14
Zinc (Zn)		0.12
Boron (B)		580 mg/kg
Copper (Cu)		580 mg/kg
Molybdenum (M)		38 mg/kg

Some shoots of *Achillea millefolium* L. were dug up with as much root and rhizome as possible from an ordinary garden soil in Newcastle upon Tyne.

Achillea millefolium is the host plant for the parasitic *Orobanchae purpurea*. The *Achillea* plants were planted into the tray of seed compost. The seeds of *O. purpurea* were sown onto the roots and rhizomes of the *Achillea*. The seed compost was pressed down evenly, the seed tray watered from beneath by capillary action, drained, and placed in a closed case.

The sown tray was kept in a warm glasshouse throughout the winter of 1990. In spring 1991 the seed tray was placed in an open frame outdoors. It remained there for another year. In June 1992 seven flower spikes of *O. purpurea* appeared. The largest spike is 250mm in height with 40 flowers. Pollinating insects were not observed but seed appears to have been set on the older flowers which had died by July 1st 1992.

Observations on the population of *O. purpurea* at Maryport in 1992 showed a number of clumps of flowering spikes with the 1991 dead flower spikes amongst them. The plant would therefore seem to be a biennial, at least in these instances, since seed takes 2 years to produce new flower spikes.

O. purpurea does not appear to need any particular soil conditions nor any particular race of *A. millefolium*, the requirement appears to be for the presence of seed of *O. purpurea*.

ANNE T. PICKERING, Department of Biology, Ridley Building, The University, NEWCASTLE upon TYNE NE1 7RU

ULMUS IN LEICESTERSHIRE

AN UPDATED REPORT ON SITES VISITED BY THE BSBI IN 1977

A well attended meeting of the Society was held in Leicestershire on August 20th, 1977. Its avowed objective was to afford local botanists and others to profit by the knowledge and experience of the late Dr Ronald Melville of Kew, in the recognition and precise determination of some of the taxa of *Ulmus* that are widespread in v.c. 55, before all mature specimens were swept away in the advancing tide of Dutch Elm Disease.

During the meeting, thirteen designated sites were visited selected each for its own special interest, and a collection of specimens was made by the staff of the City Museum and Art Gallery, Leicester, from trees which had been given positive determinations by Dr Melville. These were subsequently arranged, mounted and annotated by Mr C.S. Scotter of the museum's Botany Section. A collection of photographs of the trees represented in the collection was added during the next few

months. Nineteen specimens were sampled, some sites yielding one only, others several, and two none at all.

All the trees sampled succumbed to Dutch Elm Disease within five years of the meeting and were felled, probably by 1982, though the dates were never precisely checked. The sites were located with sufficient accuracy for later visits to be practicable and they were revisited in October 1992, their present states noted, and new photographs were taken. In the report that follows Melville's taxonomy is used, with the following standard abbreviations:

CRT *U. coritana* Melville

GLA *U. glabra* Hudson

PLO *U. plotii* Druce

PRO *U. procera* Salisb.

Each site is identified by a 6-fig NG reference; in the larger and more complex sites this indicates approximately the centre of the site. Melville's determinations are given for each of the specimens from the site.

1. SK708074 Roadside spinney opposite entry to INKERMAN LODGE (*H. Shakespeare's* farm). PLO × CRT (2 sheets); PRO (1 sheet). 1992: juveniles of both taxa survive; the first was regarded by RM as a unique local clone and he spoke at the time of taking cuttings for propagation, though it is not known whether this was done. However it still survives and is growing vigorously in its original location.
2. SK708075 Field hedges north of INKERMAN LODGE. CRT X GLA X PLO; GLA: (1 sheet of each). Stools of trees felled in these hedges appear to be of more than one kind and in 1992 only those of PRO are identifiable with certainty from their derived suckers; there are juvenile GLA in a spinney adjacent to one of the fields, and of a *U. minor* clone by a stream flowing down one side; finally the suckers generated by an isolated stool on the northern margin of the site appear Plotiform if not actually *U. plotii*.
Young *U. plotii* are undoubtedly present in a small spinney in on the LOWESBY estate adjacent to Inkerman Lodge and by the roadside close to WHITE'S BARN. Specimens were seen at both points in 1977 but were not sampled.
3. SK717077 LOWESBY: hedgerow by farm track; PLO: three trees felled by 1982, and the hedge partly grubbed out; PLO now EXTINCT.
4. SK787010 Roadside hedge between EAST NORTON and LODDINGTON; CRT × PLO × GLA; in 1992 the stools of the two trees felled by 1985 were still recognisable, and elm suckers occur within 3 metres of the northerly one, but it is a very mixed hedge and is kept very closely trimmed, so that without previous knowledge determination would now be impossible.
5. SK795034 Roadside hedges between LODDINGTON and LAUNDE; no specimen at LSR; the hedges here are now so closely trimmed that no trace of elms remains.
6. SK793047 Roadside hedges just west of LAUNDE PARK FARM, (described as 'just outside Launde Park' on herbarium labels); PLO × GLA; GLA × PLO × CRT; CRT × PLO; PLO × CRT; this is reputedly where A.R.HORWOOD first saw, in 1912, the elm which he named *Ulmus elegantissima*, and which RM determined in 1937 or thereabouts from herbarium material only, as GLA × PLO; Horwood's original tree was not found in 1977, and the specimen then det. by RM as PLO × GLA was evidently of a different clone. In 1992 there were sucker hedges extending westward from the farm discontinuously for several hundred metres to LAUNDE CROSS ROADS (site no 7); almost without exception these were Majoriform, and would almost certainly have been generated by elms belonging to RM's GLA × PLO × CRT clonal group, and only one small group appeared different. Even this would have not been detectable had the hedges been more recently trimmed.
7. SK782047 Roadside hedges along the four arms of LAUNDE CROSS ROADS; GLA × PLO × CRT (2 sheets); GLA × CRT (1 sheet); the herbarium sheets each are marked with pencil sketch maps showing the precise location of the three trees sampled; all but one of the trees of the original extensive population were felled by 1982, the sole survivor belonging to a clone of *U. minor* subsp.

- minor* and being located about 150m to the north of the crossroads. The hedge in the NE angle is kept much more rigorously trimmed than those in the other three and the site of one of the three sampled trees is no longer identifiable: there is vigorous young growth on both sides of the sites of the other two but although several differing clones can be distinguished, it would be rash to attempt to identify any of them with RM's diagnosed hybrids.
8. SK724016 ROLLESTON AVENUE; no specimens in LSR; most members of the 1977 meeting had dispersed before this site was reached. The avenue was felled before 1985, and no trace now remains.
9. SP687952 KIBWORTH HALL; GLA; roadside shelter belt extending for several hundred metres north and south of main gateway; there is no way of telling where the tree that was sampled was sited; in 1992 there was a dense mixed population of juveniles of both Glabriflora and Majoriform (GLA hybrid) elms.
10. SK722986 THREE GATES/NOSELEY; CRT × PLO; in 1977 the hedges on both sides of this road were lined with elms for several hundred metres, some at least of which RM refused to determine on the grounds that they were 'recently introduced'; in 1992, none remain and the hedges are rigorously and closely trimmed, so that identification of the still abundant elm sucker growth is not currently possible; the decaying stools of several large trees remain. There are several young trees in a field hedge at 726990 which belong to the clonal group which I have been calling MERCIANAE, and RM's determination of the LSR specimen suggests that he would have regarded my Mercian elms as hybrids between Cortician and Plot Elms also.
11. SP520880 ULLESTHORPE/ASHBY PARVA; CRT × PLO × GLA; the precise location of the tree sampled in 1977 is not now known, and in 1992 the hedges are fairly heavily trimmed so the elms in them would be indeterminate *ab initio*; it is certainly Majoriform (GLA hybrid) and belongs to a clonal group or groups differing from both 'DUTCH' and 'HUNTINGDON' cultivars.
12. SP526894 LEIRE LANE, ASHBY PARV; CRT × PRO; in 1992 there is dense roadside growth not too rigorously trimmed, and some young trees in a field hedge at right angles to the road, with a decaying stool to mark the junction. I would have said that all the surviving growth was Proceriform and that the bark pattern of the young trees indicated *U. procera*, unhybridised; in view of the views expressed by RM himself on occasion, and shared by several other botanists that English Elm has not been proved able to hybridise, and because this particular case is no longer susceptible of proof it seems to me that the right determination of this population as it now survives must be PROCERIFORMES.
13. SP548903 CHURCH LANE, DUNTON BASSETT; CRT × PRO; PLO × CRT × GLA; the roadside hedges at the given NGR are rigorously trimmed and show no sign of ever having contained elm; in 1992, however, at 546904 beside and opposite the junction of the road with a bridle way are vigorously growing elms which I regard as PROCERIFORMES for the same reasons as given above (LEIRE LANE); so the old NGR may be wrong.

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CHILDING PINK, A NORFOLK PLANT

Petrorhagia nanteuilii (Burnatt) P.W. Ball & V. Heywood

This small and dainty pink has been shuttled around between three different genera, *Dianthus*, *Kohlruschia* and now *Petrorhagia*. It is an annual with flowering stems usually 30-40cm high bearing clusters of tiny, pale-pink flowers only one of which is ever out at one time, it is very closely allied to the proliferous pink, (*P. prolifer*) and is separated from it by a number of very

small characters of which the most important is the surface of the seeds. According to the most up to date British Flora (1) it is native to dry grassy places but rare in south-central England.

The Norfolk Flora of 1968 (2) describes its occurrence under the heading 'Casuals' but earlier Floras considered it native. Trimmer (3) reported it between Stanhoe and Bircham and at Fincham, both in the 1840s though Nicholson (4) in 1914 has nothing later to add. In his presidential address to the NNNS in 1932 Salisbury (5) considered it as a rare but native species occurring in Norfolk at its northerly limit in Britain.

There are four known records of the plant this century, by J.E. Little near Northwold in 1927, by E.L. Swann near the Devil's Dike at Cranwich in 1950, by Mrs Gomershall at Mundford in 1951 and by Mrs J.E. Gaffney at a second site in Cranwich in 1985 where it is still to be found. The most interesting fact about these sites is that they are all in adjacent parishes and the obvious conclusion must be that they are relicts of a once much larger population native to the sandy soil of the area. Once out of flower the plant is very difficult to spot so it is no surprise that it has been noted infrequently, especially as none of the earlier Floras were worked by botanists living in the area. It is of course still possible that another population may turn up in the area, particularly within the parish of Mundford.

References

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4. Nicholson, W.A. (1914). *A Flora of Norfolk*. London.
5. Salisbury, E.J. (1931-32). The East Anglian Flora. *Trans. Norfolk & Norwich Nats. Soc.*, Vol XIII, pt.III. 1931-2.

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WHEN'S THE SEASON TO BE JOLLY?

A small holly (*Ilex aquifolium*) bush growing in my garden retained last year's berries well into June 1992 and completely failed to flower at that time. Looking at other holly bushes in the locality around my home (Burnham, Bucks), I have noticed several other bushes that also retained their berries well into the summer, and even, in one case, into the autumn, when the new season's berries were ripening on adjacent bushes. In September the holly bush in my garden finally came into flower and is now (early November, 1992) full of immature holly berries. Some other holly bushes in the area have also flowered during September and October. I wonder if the weather, with the early summer drought followed by the cool and rather wet late summer, 'have 'confused' these holly bushes as to the correct season for flowering and fruiting, and also whether the phenomenon is confined to my local area or is more widespread.

PAMELA TAYLOR, Heathlands, 74 Stomp Road, BURNHAM, Bucks, SL1 7LT

REGISTER OF STABLE ABERRANT FORMS OF NATIVE PLANTS

Aims of the register

To contribute to a historical record of the plasticity of each native species. (The major work in English on aberrations of form remains Masters' work on plant teratology written in 1868. This register may contribute to updating Masters' lists).

To monitor the occurrence of such forms over space and time. Some years seem to be good for certain aberrations (e.g. bracteate bluebells). Other forms seem to occur simultaneously at great distances from each other.

To retain the background information concerning the introduction into cultivation of forms of native plants.

Scope of the Register.

Aberrant forms include both pigmentational abnormalities (unusual flower, foliage, stem or fruit colour) and morphological abnormalities (e.g. double flowers, apetalous forms, bracteate forms and fasciations). At this stage forms where the native status of the material is not known for certain are to be excluded.

Stability is envisaged as material showing relevant characteristics over at least two growing seasons.

I would be delighted to hear from anyone with an interest in this fascinating range of abnormalities and who would be prepared to help.

Copies of the *Register* will be made available to interested parties at cost and forms on which reports can be registered are available from the address below.

MARTIN CRAGG-BARBER, 1, Station Cottages, Hullavington, CHIPPENHAM, Wilts SN14 6ET

DACTYLORHIZA STUDY GROUP

It was decided at the last meeting of the Records Committee to see if there is sufficient interest in forming a *Dactylorhiza* Study Group. In my capacity as a member of that Committee, I undertook to write this note.

Although apparently represented by few taxa in the British Isles, *Dactylorhiza* is a difficult genus. This difficulty is compounded by the strongly held and conflicting views on the status of some of our marsh orchids: witness the recent controversy in the pages of *Watsonia*.

In his new *Flora*, Stace summarises some of the many problems in this genus. That dactylorhichid taxa have recently been discovered new to the British Isles; Britain, and, indeed, new to science, speaks for itself.

The objectives of such a Study Group would, of course, be a matter for discussion. Speaking personally, I would like to see it attempt to act as a forum for co-operation between dactylorhichidologists (what an ugly word!) in the interests of the advancement of our understanding of the genus. I also feel it is incumbent on those of us experienced in this genus to help and encourage those less experienced. No doubt this is already happening to some extent. Activities might include excursions, indoor meetings, and workshops.

I would be willing to support such a Group in anyway thought fit (as Secretary?).

Would interested members like to drop me a line, please. We can then assess the realistic potential for getting such a Group off the ground. It would be excellent to see a good geographical spread, particularly in Scotland and Ireland: fine dactylorhichid countries!

FRANK HORSMAN, 7 Fox Wood Walk, LEEDS, LS8 3BP (tel: 0532 653925)

SORBUS ARIA var. LONGIFOLIA IN LANCASTER

In response to our note in *BSBI News* 60: p. 17, Peter Sell (after examining specimens) has kindly sent the following information:

I would include your *Sorbus* in *S. aria* var. *longifolia* Pers. as I understand it at present. It is a widely planted tree with narrow leaves and usually larger fruits than typical *S. aria*. I suspect as the trees grow larger some of the leaves may be broader with some still very narrow. This is my experience anyway. I do not know if it is part of the sexual diploid or is apomictic. The tree called var. *edulis* by gardeners should I think be included. Cv. *Decaiseana* (*Majestica*) of Mitch-

ell, 'Trees of Britain' may be the same thing. I have never seen it in a locality where I would consider it to be native and have not seen it among native populations.' Miss Vera Gordon has also found this *Sorbus* at Crosby.

LEN & PAT LIVERMORE, 8 Durham Avenue, Scotforth, LANCASTER, Lancs. LA1 4ED

SCARCE PLANTS PROJECT

SCARCE PLANTS UPDATE

Thanks to a very good response from vice-county recorders and other BSBI members, the Scarce Plants Project has completed its two years most successfully. There are now over 100,000 records in the database, the majority of which have been added during the project. Over 8,000 are records from 1989 and onwards, a good proportion of recent records. We have also been able to accept some data in machine-readable format, which has cut-down considerably on inputting time.

The adoption scheme which was co-ordinated by David Pearman has provided much detailed information on over 80 species, with many adopters using population forms. Hopefully, such information will be of use in research projects in the future.

As there is still information awaiting processing from several areas, it is as yet difficult to summarise the current status of many of the species. The list of scarce plants will have to remain provisional until this further data is processed. Once the final maps have been produced, it will be possible to see what changes have occurred in the distribution of the species. As this is the first time that the scarce species have been considered, as a group, since the publication of the *Atlas* it will be interesting to see if any patterns of change emerge.

Finally, thank you to all of you who have taken part in the project by supplying records. The information gathered, when published, should become a vital reference for all those working in conservation, to which you will all have contributed.

ALISON STEWART, BRC, ITE Monks Wood, Abbots Ripton, HUNTINGDON, Cambs., PE17 2LS

Thanks to an excellent effort, especially from vice-county recorders, the project has completed its preparatory stages most successfully. Of course more time for fieldwork would have been most acceptable but the project seems to have produced a very broad response and the next few months will see this translated into maps and reports.

JNCC have provided for a further short contract, until March 1993, to prepare the results for publication. Both basic pre/post 1970 maps, and where necessary, or feasible, further special maps will be produced. The accompanying text, now being written by botanists with a field knowledge of the species will also be edited. The completed text and maps will be handed over to JNCC publications branch for production, hopefully this year.

I must admit that far more of the work has fallen on the v.c. recorders than I expected; I thought more members would correspond via me to take some of the pressure off them. But for me at least, in spite of two years of seemingly endless pink cards, it has been a really enjoyable task - and I am looking forward very much to the *Atlas*. The Monks Wood database is working extremely well and is very flexible; the information received towards the end of the project was excellent.

Alison and I must acknowledge BRC's support and in particular that of Chris Preston who has been involved at every stage - probably far more than he expected.

DAVID PEARMAN, The Old Rectory, Frome St Quintin, DORCHESTER, Dorset, DT2 0HF.

We should take this opportunity of thanking David Pearman for the enormous amount of voluntary work he undertook for this project- and in anticipation, for the work still needed to carry it through to publication! We are greatly indebted to him for his enthusiastic co-operation, and for his occasional chivvying, which has helped to keep the project to its tight timetable.

CHRIS PRESTON & ALISON STEWART, BRC, ITE Monks Wood Abbots Ripton, HUNTINGDON, Cambs. PE17 2LS

NOTES AND ARTICLES

UNIVERSITY OF BRISTOL HERBARIUM

The large and very important herbarium held within the Botany Department of the University of Bristol (**BRIST**) has been given to other institutions by the University authorities. Lack of space and a changing emphasis of research are thought to be the reasons for this move.

The vascular plant material, including that of J.W. White, H.P. Reader, C. Bucknall and the aliens of C.I. and N.Y. Sandwith, has been donated to the City of Bristol Museum & Art Gallery (**BRISTM**). Enquiries concerning this material should be made to The Natural History Section, City Museum & Art Gallery, Queens Road, BRISTOL BS8 1RL (tel. (0272) 223571)

The cryogamic collections (including pteridophytes) have been donated to the National Museum of Wales (**NMW**) and enquiries concerning this material should be made to The Dept. of Botany, National Museum of Wales, Cathays Park, CARDIFF CF1 3NP (tel. (0222) 397951 ext. 220)

'OUT OF OLDE BOKES... COMETH ALL THIS NEWE SCIENCE' personal reflections on botany, botanists and books

[This is an edited version of a paper presented at the annual general meeting of the Botanical Society of the British Isles, National Maritime Museum, Liverpool, May 1991.]

For out of olde felde, as men seith,
Cometh al this newe corn from yeer to yere;
And out of olde bokes, in good feith,
Cometh all this newe science that men lere.

Geoffrey Chaucer: *The Parlement of Foules*

Beware of new books; but pursue the old, both sacred and civil, too much neglected.

John Ruttly: *Spiritual diary, and soliloquies* (1796)

'OLDE BOKES'

We are all, amateur and academic, dependent ultimately for our knowledge of plants on the written and printed word, on the manuscripts and books bequeathed by our predecessors. An easy way to demonstrate this dependency is to look at the plant names and references acknowledged in published research papers. Even if a botanical paper contains no references, it will surely have at least one properly cited plant name which in itself is a simple historical and bibliographic statement. Thus, within the seemingly inconsequential triplet *Bellis perennis* L. - the correct name for the common daisy - is explicit information that will reveal that Carl Linnaeus bestowed that couplet on that species in *Species Plantarum*, published in Stockholm on 16 August 1753, in volume 2, on page 886: of course you have to do a bit of work to unearth that full bibliographic citation, and you need to be aware that the abbreviation 'L.' - the authority - is the key (in this case to a source such as

Stafleu & Cowan 1981). Thus each botanical name with its authority is a statement about an 'olde boke'.

The printed contents of books is a topic too broad to encompass in a brief essay, and in any case the older botanical and horticultural books of British and Irish origins have been well documented by Arber (1986) and Henrey (1975), among others. Instead I will muse about marginalia, and examine what knowledge about botany, botanists and bibliophiles can be gained from perusal of the 'olde bokes' on library shelves, whether those of an institute such as the National Botanic Gardens, Glasnevin, or of a small personal library like my own. I will also meander into the general realm of deceased botanists and their libraries.

There is something immensely satisfying about being in a house full of books - my book-shelves sag under perhaps a thousand volumes. Most are recent publications, but occasionally I buy a second-hand - a more friendly denomination than 'antiquarian' - book principally because I believe I have a need for the particular volume. I scan catalogues from 'antiquarian' dealers for works that I should have on Irish botany and Irish gardening. I am not an investor, someone who buys books aiming eventually to realize his investment - I acquire them to read, to use as reference volumes or research materials. Thus I often bring home volumes which more choosy collectors would eschew, ones with cut fly-leaves, foxed plates, battered spines, and even - in desperation, oh horror of horrors! - with a missing plate or two, or the scribbblings of some 'vandal'.

Torn, battered, annotated botanical books, copies described as 'in poor condition', are books with a history, perhaps of appalling abuse but more likely of zealous use. They may be floras that were well-handled, carried in coat pockets across peat bogs, dropped accidentally into mountain torrents, incarcerated in a vasculum with frogs and cuckoo-pints. One can only guess what befell Henry Chichester Hart's copy, now in the National Botanic Gardens, Glasnevin, of Asa Gray's *Manual of the botany of the northern United States...* (New York, 1872) during the British Polar Expedition to the Arctic on *H.M.S. Discovery* in 1875 and 1876 - at least it is warm and dry nowadays. Such a book didn't sit unread on a library shelf, accumulating dust, unopened, uncut, unloved - I'll agree wholeheartedly with the Abbé in Allen Kurzweil's (1992: 98) splendid novel, *A case of curiosities*, who pronounced that 'a book unread is like cathedral glass that hides its beauty from all who do not enter.'

Of course, a well-loved book need not have been wrecked, foxed or defaced, but a well-used book will display its history both on the surface and inside, and I prefer the well-used ones.

ANNOTATED BOOKS

What can one discover in a second-hand volume? What new science is there to be gleaned from old books? To gain anything, a book must have at least a signature in it, or an annotation about a plant; perhaps it will merely be embossed with a crest or a seal, or have a bookplate on the front endpapers. These personal marks proclaim that someone, some time ago, opened the book; they record the name of a previous owner, even the idle doodles of a bored plantsman, or chart the perambulations of a peripatetic botanist. Thus old books can be enchanted mines of information, perchance yielding some long-forgotten facts. Nowadays, given the advances made in botany, it is rather improbable that annotations will yield new scientific data - but I use science in its original sense, 'knowledge acquired by study'.

Annotating books was something we were always warned about at school - 'Don't scribble in your books... Someone else might want to read it one day!' I have to confess I often scribble in books, adding new information or correcting lapses; someone, some day, will take up my copy of D.A. Webb and M.J.P. Scannell's *Flora of Connemara and The Burren* (Cambridge, 1983) and find a few additional records of plants that I have gathered in recent years. And if earlier botanists hadn't scribbled in their copies we would not know that there was a mighty strawberry tree (*Arbutus unedo* L.) growing in a garden at Ballymount near Dublin about 1650; that annotation is in William How's own copy of his anonymously published *Phytologia Britannica* (London, 1650). The Glasnevin copy of How's book was once the property of the Dublin botanist, Nathaniel Colgan, and before that of the Revd Littleton Brown MA FRS who noted in the margin that dropwort (*Filipendula vulgaris* Moench) grew by the Charwell in Kitts' Meadow at Oxford.

Thus annotated copies of old floras can contain miscellaneous, sometimes significant information about the distribution of plants in former days, and sometimes well-known annotations have been assiduously garnered by compilers of later floras. In the Royal Irish Academy, Dublin, there is a copy of Caleb Threlkeld's *Synopsis stirpium Hibernicarum* (Dublin, 1727, second issue) that belonged to the eccentric Quaker Dr John Rutty, a native of Wiltshire, who came to Ireland to practice medicine after graduating from the University of Leiden in 1723. He was a driving force

within the short-lived yet innovative Physico-Historical Society of Dublin. Rutty's annotations were incorporated by Reginald Scully and Nathaniel Colgan into the second edition of *Cybele Hibernica* (Dublin, 1896) and by Colgan into his *Flora of the county Dublin* (Dublin, 1904), although neither Scully nor Colgan identified the annotator. Rutty had contact with other virtuosi including Dr Charles Lucas, Clare-born apothecary and politician, who reported to him the occurrence of mossy saxifrage (*Saxifraga hypnoides* L.) in County Clare and whortleberries (*Arctostaphylos uva-ursi* (L.) Sprengel) 'on ye mountains in C. Clare' in July 1740, both the earliest records, by many decades, of these plants from The Burren (Nelson & Walsh 1991, Nelson 1992a).

ASSOCIATION COPIES AND BOOKPLATES

In my own library, there are association copies but none copiously annotated: rarely have I acquired them deliberately; most are chance purchases because booksellers generally seem unwilling to promote such copies (thank goodness! - they are often quite cheap). My copy of *Cybele Hibernica* (Dublin, 1896, second edition) - a gift to me from an American botanist (and so annotated!) - once sat on the library shelves in Fota House, County Cork: it contains the bookplate of A.H. Smith Barry. One of my two copies of David Webb's *An Irish Flora* (Dundalk, [1943], first edition) belonged to the late Will Ingwersen, the eminent alpine-plant nurseryman, whose gentian bookplate has been stuck over that of another (probably his father's, I am reliably informed).

A few of my books have 'come down in the world', their former aristocratic owners included the famous geologist-earl of Enniskillen. I did deliberately buy William Harvey's *Manual of the British marine algae* (London, 1849) for its associations with Florencecourt, in my home county of Fermanagh, and with Harvey 'Keeper of the herbarium of the University of Dublin; and Professor of Botany to the Royal Dublin Society.' I have Sir Charles J.J. Hamilton's (son of Charles Hamilton whose gallantry at Quebec earned the baronetcy) copy of the eccentric Corkonian Richard Dowden's *Walks after wildflowers or the botany of the bohoreens* (London, 1852), and my copy of Threlkeld's *Synopsis Stirpium Hibernicarum* (Dublin, 1727, second issue) bears a crest which matches that of the earls of Drogheda - a moor's head in profile, couped at the shoulders, cinctured, springing from a coronet. A recent, chance acquisition was Frederick William Burbidge's wonderful account of his travels in Borneo. *The gardens of the sun* (London, 1880); by the year this was published, Burbidge was curator of Trinity College Botanic Garden in Ballsbridge. Signed simply 'Ventry 1889'. bound in marbled boards, half leather, it is back in Ireland where it had been originally purchased from 'Hodges Figgis, 104 Grafton Street, Dublin.'

Someone was the recipient of a copy, now in my possession, of Robert Lloyd Praeger's *A populous solitude* (Dublin, 1941) as it has the prize-plate of Collegium Dublinense Societatis Jesu, but, alas, the space for the name of the recipient remains blank. And I have a copy of Walter Wade's *Plantae rariores in Hibernia inventae...* (Dublin, 1804) which was in the library of The Society of Writers to The Signet, Edinburgh's law library - its fine crest is stamped in gold on the boards, front and back

Crests and bookplates are useful. They declare ownership and at the same time can be amusing, informative and beautiful. In the National Botanic Gardens, Glasnevin, a scattering of books with interesting bookplates proclaims an assorted lineage of owners. Lady Louisa Tenison, of Kilronan Castle, near Carrick-on-Shannon, whose herbarium is in Trinity College, Dublin, once owned Joseph Paxton's *Botanical dictionary* (London, 1868, new edition); evidently this copy came to Glasnevin through Dr T.J. Walsh, Keeper of the National Botanic Gardens, 1944-1968. James Britten's copy of John Cameron's *Gaelic names of plants* (Edinburgh & London, 1883), inscribed by the author to Britten on 29 January 1883, somehow reached Dublin. Britten's magnificent bookplate is worth closer examination - there are elves stocking a library with volumes, some displayed higgledy-piggledy for us to see, and from their titles we gain immediate information about Britten's interests and occupations as editor of the *Journal of Botany* and (presumably) of *League of the Cross Magazine*; the books proclaim that folklore, social reform and Ireland were within his purview; 'de Ecclesia' and 'de Fide' undoubtedly affirm his faith. I don't know of any other bookplate that encapsulates a career so finely, and I wonder who engraved it. Other bookplates are as informative; William H. Phillips, fern enthusiast of Holywood, County Down, had his made from a published photograph showing him among his ferns.

WILLIAM HENRY HARVEY'S BOOKS

Signatures and dedications sometimes provide fascinating morsels, especially about botanical 'networks' and individual relationships. William Henry Harvey was Professor of Botany in the Royal Dublin Society from 1848 and later (1856) in Trinity College, Dublin; he was the foremost



Bookplates *Ex Libris* James Britten (top) and Charles Nelson (bottom)

student of seaweeds (marine algae) during the mid-nineteenth century. Some of his personal books are in the National Botanic Gardens, where perhaps they were left more by accident than design - Dawson Turner originally inscribed *Muscologiae Hibernicae spicilegium* (Yarmouth & London, 1804) for someone and then 'J.E.B.' gave the copy to William Harvey in 1829; Asa Gray inscribed *The botanical text-book* (New York, 1850, third edition) to 'Professor Harvey from his friend The Author'; Jean Francois Camille Montagne dedicated a copy of the botanical volume of *Voyage au Pole sud et dans l'Océanie sur les corvettes L'Astrolabe et la Zélée...* (Paris, 1842-1845) 'à son savant ami M. harvey...', and also Harvey's copy of *Histoire... de l'île de Cuba... botanique...* (Paris, 1838-1842).

Recently I added to my small collection of Harveyana the three volumes of *Nereis boreali-americana* (Washington, 1851-1858) which were a gift from Harvey to fellow phycologist, Mrs Amelia Griffiths - the first is signed and dedicated 'Mrs Griffiths from her friend The author'; the second bears the inscription 'Mrs Griffiths from The Author'; and the third, published after Mrs Griffiths' death, is inscribed 'to Miss Amelia Griffiths, 'in memoriam', from the author' (her mother died on 4 January 1858). Mrs Griffiths, her daughter and Harvey once handled those books; Mrs Griffiths even annotated volume two, adding the botanical names below the lithographs. Professor Harvey had dedicated his *Manual of the British marine algae* to Mrs Griffiths.

I have two other intimate volumes, both chance purchases. A collection of offprints, bound as a single volume, on the natural history of Ireland by John Kinahan - the first paper is on the classification and nomenclature of varieties of ferns - is inscribed 'L.A.S. Kinahan from her affect son JRK, Nov 1862'; inside there is also the signature 'Amelia G. Kinahan 09'. *Ulster Nature Notes* (Belfast, 1908), another miscellany, by Robert Paterson was his own gift 'To my Mother, with much love from The Editor! 16th December 1908'.

William Harvey is an entrancing subject for a bibliophile, so two further marginalia may be noted. He had a puckish sense of humour, and didn't approve of the Darwinian notion of evolution. On 17 February 1860, Harvey delivered a lecture to the Dublin University Zoological and Botanical Association, dissenting from Darwin's theory, concluding with this:

I could readily spin [my yarn] out for an hour or two longer. Innumerable illustrations strike me. I could tell you of the battles of the frogs and the mice, symbolic of man's first struggles with the spirit of evil; of the distinction between manly frogs and slaving toadies; of frog-lyrics, and the Marseillaise hymn as connected therewith; but I am warned by the lateness of the hour, and, besides, remembering the fatal consequences attending a funny verse of Oliver Wendell Holmes,

'I never dare to write
As funny as I can.'

The lecture was published under the title *An inquiry into the probable origin of the human animal...* (Dublin, [1860]: the pamphlet's title-page bears as an epigram the penultimate line from the Limerick author, Gerald Griffin's (1803-1840) verses *Aileen Aroon*, 'Truth is a FIXED star'). In the preface, Harvey described the lecture as a 'serio-comic squib... a trifle...' Darwin was most offended. There are two copies of this pamphlet in the National Library, Dublin (Praeger 1918) - one has the inscription in Harvey's hand 'This is rubbish - merely got up to amuse an evening meeting of a private society', while the second (sent to the Revd Charles Graves) is annotated 'To be burned when read' at the top of the title-page, and 'Suppressed by the Author' at the bottom (both in Harvey's hand). Many months after publication Harvey sent a copy to Darwin, inscribed 'With the author's repentance.'

ROBERT BROWN WITH BOOKS IN IRELAND

So far I have discoursed about books that are known, that can be handled and examined. There is another facet of bibliophagy which is entirely intangible - 'missing' books, those from many authors that once belonged to a botanist and are no longer kept together as an intact library, those that never were published, and those that were published yet have vanished without trace.

Two centuries ago, a young Scot carried botanical books from town to town around Ireland in a trunk. By studying his diaries, it is possible to list some of the books that once formed the portable library of Robert Brown, one of the greatest botanists of the nineteenth century, who spent half a decade in Ireland, then travelled around the world, and finally settled in London where he became '... our *Jupiter Botanicus*'. Brown was only 21 when he joined the Fifeshire Fencibles as a surgeon's mate, and in June 1795 he was posted to Ireland. Based for most of the five and a half years in the north, he lived in barracks at Belfast, Londonderry and Dunrea on the Inishowen Peninsula in

County Donegal. Brown collected purple saxifrage (*Saxifraga oppositifolia* L.) on Bulben Mountain and gathered Irish spurge (*Euphorbia hyberna* L.) a few paces from the military fort at Dunrea.

Brown divided his day unequally between botany, medical duties and the mess-room - it was not unusual for him to consume a pint of port at dinner (see Mabberley 1985: 48) and then spend four hours at botanical work, retiring after midnight and sleeping for just a few hours. He read widely in medicine, politics, history and botany, and most of the books were his own. Mabberley (1985) deals at some length with Brown's years in Ireland and notes some of the books which this young botanist had with him.

Robert Brown's diary for 1800 is extant (in Department of Botany, Natural History Museum, London) and shows that he was obliged to carry his library about with him, packing, unpacking and repacking the books as he moved from barracks to barracks, Londonderry, Dunrea, back to Londonderry, then to Kilcock, Maynooth, Kilcullen and finally London. On 5 June 1800 Brown wrote:

Slept about 2 hours - Went to bed half part 11 awakened by the Corpl of the Guard about 12 who informd me we were to march the following morning - Slept none

June 6th Rose about 3 oClock - employd in packing up my cloaks, books, specimens &c till - 7. But, he could never carry about all the books he needed. Almost a fortnight later on 19 June, the regiment was in Londonderry;

Walk'd to Sharon about 8 miles from Derry in the County of Donegal. My object, to procure a loan of the Species plantarum from the Rector {Mr Usher} who I was inform'd was a botanist - my information prov'd false - however, & he has not the book - he informd me that the best Botanist in Dublin was the Professor of Astronomy Mr Brinkley, that Dr [Robert] Percival the Professor of Chemistry was also a good botanist - the Professor of Botany in the Dublin College knows little about the matter Mr Wade is the lecturer on Botany to the Dublin Society his salary £300 & his fee from each student 3 Guineas - ! he is improv'd I hope since the publication of his barren Catalogue - ! Staid about an hour & half at Sharon - returnd to Derry about half past 4.

On 25 June, having spent his usual time in the hospital till one o'clock, Brown was

Employ'd till half after 4 in unpacking my books writing my name in them all & separating those which I intend sending home - I can scarce bring myself to part with any, tho' I cannot expect to carry them about without considerable expense & danger of being damaged or destroyed. At Dinner a pint of Port - Messroom till 7 o'Clock Parade half an hour - Tea in my room. Kelly of the York & Green - Walk'd half an hour with the above namd - two glasses of Porter in Kelly's Room - where I staid upwards of an hour - Violin 3/4 of an hour - Went to Bed a quarter before two oClock.

During that September, Brown was based in Kilcock, County Kildare, west of Dublin and he walked into the city (or took a canal barge) on several occasions.

Sepr 3d Rose half after 5 - Left Kilcock at 6 - Breakfasted with Capt Morris at Leixlip - Walk'd to Dublin - Sun Inn Queen Street Walkd thro several of the Streets - Gilberts Medical Bookseller Great George Street - bought several medical works

Sepr 4th Breakfasted with Dr [David] Ledwith to whom I had a letter of Introduction from C Lyon our Paymaster I expected to find him a Botanist, but am so far disappointed - C Cheshire Louth Militia breakfasted with the Dr. Walkd with Dr Ledwith to the Botanic Garden at Glasnevin - the plan excellent but the execution in its infancy - [John] Underwood the Gardener... Dr [Walter] Wade - the Professor

Sepr 5th... Walk'd out to Glasnevin... Looked at the 2d edition of Hedwigs Theoria... Read some papers in Vol 5th of the Linnean Transactions...

Brown returned to Dublin on 18 September and again went to book shops - Gilberts' and Archer's, and to Thomas Read & Co., cutlers, in Dame Street. On the following day he breakfasted with Dr David Ledwith

he accompanied me to the College Library - spent an hour there Plumier Filices - Sir Hans Sloane History - Sauvages Nosologia - Walkd out to Glasnevin Dr Wade conversation with - give him specimens receive nothing in return but one of *Saxifraga umbrosa* take notes from Vols 8 - 9 & 10 of English botany & from the Nos of 11th as far as July 1800.

He had 'No Dinner' but 'Suppd on Mutton Chop & bottle of Porter - went to bed at 10 oClock'. Brown was up at 7 o'clock the next morning looking for Dr Robert Scott (whose copy of William Hudson's *Flora Anglica...* (London, 1778) is in the National Botanic Gardens, Glasnevin); failing to find him, Brown went to breakfast with Dr Ledwith and then to

College Library took some memoranda from Plumier's Filices - Walkd to Glasnevin... Neither Dind nor Suppd Went to Bed at 10.

Copies of Charles Plumier's *Traité des fougères de l'Amérique* (Paris, 1705) and Hans Sloane's *A voyage to the islands ... with the natural history of the herbs...* (London, 1702, 1725) are in Trinity College Library to this day (cf. Nelson [1981]), undoubtedly the ones Brown used - indeed I suggest it is unlikely that Plumier's book has been opened since that day. Francois Boissier de la Croix de Sauvages' *Nosologia methodica*, a medical work, is also still reposing on the shelves in the College Library - the 1768 edition, published in Amsterdam.

I do not know where the second edition of Johann Hedwig's *Theoria generationis et fructificationes plantarum cryptogamicarum Linnaei...* (Leipzig, 1798), seen at Glasnevin by Robert Brown, has gone - the only copy recorded in Ireland is in the Royal Irish Academy (Nelson [1981]). On the other hand, the complete set of volumes of James Edward Smith's *English botany* (London, 1790-1814) happily is still in use at the National Botanic Gardens.

The library that Brown carted around Ireland was substantial - he had (for example) Samuel Elisée Bridel's *Muscologia recentiorum seu analysis...* (Gotha, 1797), Erasmus Darwin's *Phytologia* (perhaps the Dublin issue, 1800), at least one work by the Welsh botanist, Lewis Dillwyn, and Joseph Gaertner's *De fructibus et de seminibus plantarum* (Stuttgart, 1788), Albrecht von Haller's edition of Johann Scheuzer's *Agrostographia* (Zürich, 1719), and an unidentifiable edition of Georg Franz Hoffmann's German flora. We know he did not have any Irish floras nor any edition of Carl Linnaeus' *Species plantarum*, but he did have Linnaeus' *Philosophia botanica* (the first edition was published in Stockholm during 1751), and, mysteriously, something which he recorded as 'Walker's *Flora scotica*' (could this be an otherwise unrecorded manuscript belonging to his teacher, the Revd John Walker, Professor of Natural History in the University of Edinburgh?).

Where are Brown's books now? 297 volumes from his library went after Brown's death to the Linnean Society, London, and the rest were sold by John Stevens of Chelsea during June 1858, but none of the volumes recorded in the Linnean Society's register nor in the sale catalogue predates 1800. I suspect that Robert Brown packed his books and brought them with him on the voyage of *H.M.S. Investigator*, and most probably none returned intact after four years in a leaky, vermin-infested ship. Occasionally Brown's books 'surface' in antiquarian catalogues, but presumably most are now scattered through innumerable, anonymous libraries.

MISSING BOOKS AND GHOSTS

The other sorts of unavailable books - the still-born, the ghosts, and the vanished - may conclude this ramble into botanical bibliophily. Ghosts exist perhaps as a tantalizing sheaf of proof sheets. Walter Wade's *Flora Dubliniensis* (Nelson 1980) was designed as the sumptuous Irish counterpart of William Curtis's *Flora Londinensis* (London, 1775-1799). The text pages and an excellent engraving of henbane (*Hyoscyamus niger* L.) are the only pieces that survive of the proof of Wade's book, although there is firm evidence that at least two other plants had been described if not drawn - red fescue (*Festuca rubra* L.) and water dropwort (*Oenanthe crocata* L.). The mystery remains - why was it started and never published?

Even more fascinating is William Harvey's ghost: *Horae Macleayanae* was never completed, let alone published. The extant fragment comprises the proofs of the first sixteen pages printed in Cape Town. This single gathering remains a testimony to Harvey lively mind and, equally, to his debilitating tendency to acute depression and consequential lethargy (Nelson 1992b).

Finally, the missing books, the lost works, 'olde bokes' vanished without trace from which no 'newe science' can be gained. Where, for example, are two items advertised by Patrick Bernard O'Kelly of Ballyvaghan - catalogues of ferns and of the flora of County Clare (cf. Nelson 1990, Nelson & Walsh 1991). No library in Ireland has copies as far as I can tell, and they are not available in Britain either. Neither is listed in 'standard' catalogues such as those of The British Library and The Library of Congress. For a botanist with an interest in 'olde bokes' (and moreover with an interest in The Burren), the loss of these is a torment. Over 600 'new sorts of Irish ferns and plants' were named in O'Kelly's catalogues (according to himself!), plants '... never before discovered in any part of the world'. New to science they may not be, but they are, in the present-day, utterly unknown! Where are Patrick Bernard O'Kelly's *Catalogue of the flora of Clare* (Ballyvaghan, c.1895) and *Catalogue of 1042 species and varieties of British ferns* (Ballyvaghan, c.1895)? When published they cost two pence and three pence a copy, respectively! Please, someone unearth them. What phantom sunbeams shine through that 'cathedral glass'?

ACKNOWLEDGEMENTS

My thanks are due to Judith Diment, formerly librarian, Department of Botany, Natural History Museum, London, for access to Robert Brown's diary, to Vincent Kinane for information about books in the Library, Trinity College, Dublin, and to uncounted friends (book-sellers included) who have stimulated and satisfied my love of books, especially Joe Ewan.

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DICTIONARY OF BRITISH & IRISH PLANT-LORE: PROGRESS REPORT

Since the *Dictionary of British & Irish Plant-lore* project was announced in *BSBI News* **56**: 30 (1990), considerable progress has been made. The Oxford University Press have agreed to publish the work, the compilation of which should be completed by mid 1995.

So far entries have been at least partially prepared for approximately 200 species. Although some of the information used is derived from a wide range of previously published works, the main source of information and inspiration is material sent in by correspondents throughout the British Isles with approximately 4,050 items of information having been received from 524 correspondents. Thus the *Dictionary*, will provide a good impression of what is known concerning the folklore of plants at the present time.

However, coverage of the British Isles remains patchy, with some areas being well covered, and others being poorly known. The major region in the latter category is Scotland: are things really as barren as they appear to be north of the border? It is also apparent that widespread and well known items of plant-lore are tending to be under-recorded. For example, no information has been received on how the game of conkers is, or was, played. Many BSBI members have been extremely helpful in supplying information to this project, and it is hoped that this note will encourage others who have not yet done so to contribute. If you know of any information on the folklore and traditional uses of plants, or would like to know more about the *Dictionary*, please contact me.

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BOTANICAL CORRESPONDENCE

Some interesting letters from Wm. Marshall to Revd L. Blomefield, (Leonard Jenyns) in 1875

In 1875 the botanist William Marshall (1815-1890) of Ely wrote to the Revd Leonard Blomefield (1800-1893) who was then living at Bath, asking questions about the birds and plants of Cambridgeshire. Blomefield was the naturalist who had described Darwin's Fishes and was the brother-in-law of the Revd John Stevens Henslow (Professor of Botany at Cambridge). Previous to 1871 Blomefield was known as the Revd Leonard Jenyns, Vicar of Swaffham Bulbeck (he changed his name in 1871 to receive an inheritance). William Marshall's herbarium is now held at the Plant Science Department of Cambridge University, some of his letters are at Kew. Marshall was a solicitor at Ely, but botany was his lifetimes interest. The following extracts are from the letters of William Marshall to Blomefield:

April 10th 1875. Ely.

I am afraid you have long forgotten me, altho' I have not and never shall forget my Botanical walks with you and Profs. Henslow some 45 years ago at Ely, when as a lad I accompanied you & him to Haddenham and elsewhere. Professor Selwyn told me of your whereabouts last Autumn & having a question I want solving relating to one of our Fen Birds, I do not know to who I can refer as an authority equal to yourself.

When I was quite a Boy I used to hear one of our big Fen Birds frequently called 'Cawdy Mawdy' but I never knew which it was. I remember also a doggel which I heard at the same time in connection with the same Bird, but what it means I am quite unable to say, - It was

'Cawdy Mawdy' lives in the Fen
and Brews good Beer for Gentlemen
Gentlemen, come every day
But 'Cawdy Mawdy, flies away

Marshall asks Blomefield if he knows what bird this could be, he continues :

The remainder of my paper allows me to mention a singular fact connected with another department of Natural History in which you are, I know interested. I mean Botany. You know well that the Bee Orchis is not found at Ely, nor in any part of Cambridgeshire nearer than Devils Ditch, Burwell, Exning & Fulbourn & yet it has appeared, within the last few years, in a moist grassy part of one cemetery at Ely (part of New Barns) & is growing with great luxuriance & in great profusion. About 20 years ago the ground was sown with Hay Seeds obtained from the sweepings of the stables of the Lamb Inn & Bell Inn in Ely. I Can account for the appearance in no other way.

The next letter is dated : April 27th 1875. Ely. After thanking Blomefield for his 'long & valuable letter' he continues:

I think you must be mistaken as to the Bee Orchis having ever been found in this neighbourhood. Speaking from an experience of near 45 years, I can say I never found it, nor ever heard its having been found by any body else, neither do I think it likely to have been found here, since O.mascula is never seen, O.maculata very rarely & even O.morio is not common.

The Senico Paludosus has long since disappeared from Ely, but I still retain my specimens both of that & also of Cineraria palustris [1] which I gathered myself about 40 years ago. It is just possible it may yet linger in Wickham Fen where I believe it was last found.

On Thursday, we shall have the Melancholy satisfaction of burying Professor Selwyn in our cemetery among the Bee Orchises. He was much respected at Ely

I am, very dear Sir, Yours faithfully, W. Marshall

Professor Selwyn and Blomefield were long time friends and the announcement of his death must have been a blow to him. He wrote in his diary 'April 24th 1875. Professor Selwyn died this day at his house at Cambridge: a great loss to the University'.

Professor John Stevens Henslow mentioned above inspired a whole generation of Cambridge naturalists including Charles Darwin. Leonard Jenyns (as he was known then) and Professor Henslow intended bringing out jointly a Fauna Cantabrigiensis*, and with this object in view (not missing the chance to collect any plants) they rambled as far as Ely and there they would stay a few nights. It was during these visits that the fifteen year old Marshall had the chance of going with them and of being enthused with an interest in botany that was to last him a lifetime. Marshall published on a 'New Waterweed', Anacharis alsinastrum [2] in 1852 and contributed botany to S.H.

Miller & S.B.J. Skertchley's *Fenland* in 1878 and in the *Phytologist* Vol. ii 1845, 284-285; Vol. iv 1852, 705-715. William Marshall died on the 4th February 1890 and was himself buried in the cemetery at Ely. As to what a 'Cawdy Mawdy' was we cannot be sure but a 'Coddy Moddy' seems to be a Common Gull.

*The Fauna of Cambridge was never published but Jenyns wrote up his work and presented it to the Cambridge University Museum where it is preserved today.

[1] *Senecio palustris* (L.) Hook. non Vell.

[2] *Elodea canadensis* Michaux

These interesting letters from Marshall are just a small example of the hundreds of 'Letters from Scientific Men' to Blomefield (Jenyns) that he preserved and deposited with the Bath Royal Literary & Scientific Institution (now Bath Geology Museum) along with his herbarium, Shell collection, and his Natural History Library. My interest (as the last Keeper of these collections) is to research and collect as much information on Blomefield (Jenyns) as possible, to be able to produce a biography of Blomefield. If you have seen any of Blomefield's letters of reply or any other material I would very much like to hear from you. September 1st 1993 is the centenary of the death of Blomefield. He is buried in Lansdown Cemetery, Bath and this article is dedicated to his memory.

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A FURTHER DECLINE IN TAXONOMY?

In *BSBI News* 61: 6, under the heading 'Decline in Taxonomy', our Secretary remarked on the decline of taxonomic research in British universities and at the Natural History Museum. In an obituary to Sir Terence Morrison-Scott, Director of the Natural History Museum from 1960-1968, we are told that he 'increased the Museum's research budget by the ingenious expedient of reclassifying it as a research body rather than a museum'. This year, in an obituary to Dr Maurice Burton, Deputy Keeper of Zoology at the BM from 1949-1958, the point is made that with the **present** cutbacks in senior scientific staff, future young scientists will no longer enjoy the generation-to-generation training which formed the backbone of research at South Kensington, and will have to start from scratch. What a contrast.

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TAXONOMIC AND NOMENCLATURAL CONTROVERSY

Comments in *BSBI News* from Tim Rich and Kery Dalby about my *Watsonia* review of the BSBI's 'Crucifer Handbook' call for a response. In my defence, may I be permitted, by way of illustration, a reminiscence from my youth?

At the Debating Society of an ancient Scottish University, c.1972, the motion that 'Jesus Christ had died in vain' was proposed by a hirsute and vociferous Marxist agitator. When one of his fiercest political opponents (now a Right-wing Tory M.P.), made a contribution to the debate, the Marxist interjected to denounce him. 'But Mr Quigley', said Mr Right, his stentorian, patrician tones mollified by pity, 'had you been listening to what I am saying, you would have realised that I am speaking on behalf of your motion!' I rest my case.

I apologise for my error over Kery's initials, but existing as I have always done on the very fringes of botany (being by trade a failed geneecologist) I was unfamiliar with his real initials. If it is any comfort to him, my name is frequently mis-spelled - and I intend one day to publish a full synonymy. My favourite alias is a certain Dr J.A. Keroud, whom *Journal of Bryology* reported to have collected, with his more reputable colleague C.D. Preston, a rare moss on the Greek island of

Samothraki. The Levantine tone of the name suggests this gentleman to be a Moslem, probably a Turk, so he was very lucky to leave the island in one piece!

Finally, all accounts of *Cochlearia* are controversial: none work.

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NEWS FROM THE NATURAL HISTORY MUSEUM

Two major projects have started which may temporarily restrict facilities in the British and General (i.e. non-European) Herbaria. The British Herbarium is being recurated according to Kent's checklist, and the General Herbarium is being re-roofed. It is not known how long the recuration of the British Herbarium will take, but the re-roofing of the General Herbarium should take about 15 months. Therefore it is most important that all intending visitors contact a member of the Museum's staff to ensure that what they want to see, and appropriate work space, is available.

Three workshops have been planned for the early part of 1993. On Saturday 15 January Roy Vickery will explain how the facilities at the Museum can be used as an aid to identification. The day will start at 11a.m. with a tour of the herbaria after which participants are encouraged to try and identify any specimens which may be puzzling them, or examine material of any particular group or area which is of particular interest to them. If you have a number of puzzling plants which you have always been meaning to identify, or if you want to start on a new group or area, this is your opportunity. No fee will be charged, but please notify Roy in advance if you intend to come along.

The other two workshops are:

Saturday 6 March: Clive Jermy - *Juncus*

Saturday 24 April: Jenny Moore - Charophytes.

These are open to all who are interested, but advance booking is required. Bookings, together with a fee of £3.50 per workshop, should be sent to Roy Vickery, to whom any cheques should be made payable.

The Museum's Saturday workshops have proved to be popular and enjoyable, and we are most grateful to all those who have shared their expertise and enthusiasm with us.

The herbaria remain open during the times given in *BSBI News* 61: 41, and people wanting to use them are encouraged to contact a member of staff in writing before their proposed visit.

ROY VICKERY, Department of Botany, The Natural History Museum, Cromwell Road, London, SW7 5BD.

OXFORD UNIVERSITY HERBARIA (OXF and FHO)

Teaching and research in Plant Taxonomy at Oxford has recently been reviewed by a Panel chaired by the Director of the Royal Botanic Gardens, Kew. Acknowledging the increasing commitment to the plant sciences at Oxford, the Panel recommended that taxonomic research be developed through an integrated programme of restructuring. The first step in this reorganisation will be the securing of funds for the comprehensive refurbishment of the herbaria and associated laboratories. Changes are already being made but throughout these improvements there will be no restriction on loans. However, inquiries should now be addressed to the Acting Curator, Dr David J. Mabberley.

One of the Panel's recommendations was that the Fielding Herbarium cease to accumulate new material and that the Forest Herbarium be the repository for new specimens. The Druce Herbarium will continue to be the repository for all British material and the Forest Herbarium will now be that for material from the rest of the world. The latter (**FHO**) will accordingly be known henceforth as the Daubeny Herbarium as it will no longer be merely the repository of forest plants. The name commemorates Charles Giles Bridle Daubeny, MA, MD, FRS (1795-1867), Professor of Botany from 1834, having been Professor of Chemistry from 1822. He did much to restore the teaching of botany at Oxford, reviving the Botanic Garden and introducing experimental techniques into the subject. He was instrumental in the University's acquisition of the Fielding Herbarium in 1853. To

quote H.N. Clokie, *An account of the herbaria of the Department of Botany in the University of Oxford* (1964) p. 47: 'Professor Daubeny is one of the most outstanding of the Oxford Professors of Botany. His greatness lay chiefly in his ability to get botany taken seriously in the University, in his capacity to read and assimilate data on the latest ideas in botany, chemistry, geology and agriculture, and to work in the same directions, producing papers which might be of use to his students in their work and generating his own infectious brand of enthusiasm'.

The disposition of the Herbaria is now as follows:

Fielding-Druce Herbarium (**OXF**): herbaria of Fielding, Sherard, Dillenius, Sibthorp, Morison, DuBois, Bobart, Druce, of which only the last is accepting new (British) material.

Daubeny Herbarium (**FHO**): world herbarium for all new non-British material.

The Department of Plant Sciences is pleased to announce the conferment of the title of Distinguished Research Curator on F. White, M.A. (Oxon.), Sc.D. (Cantab.) until retirement, in recognition of his outstanding research work, notably on the taxonomy and ecology of African plants.

C.J. LEAVER F.R.S., Sibthorpiian Professor and Head of Department.

H.G. DICKINSON, Sherardian Professor and Keeper of the Botanic Garden.

Department of Plant Sciences, University of Oxford, South Parks Road, OXFORD OX1 3RB

EILEEN BOLTON AND LICHEN DYES

Botanists may be interested to learn that *Lichens for Vegetable Dyeing* by Eileen M. Bolton was republished in 1991 in America (Robin & Russ, Handweavers, Oregon, not priced) - an updated edition of a work first published in Britain in 1960 (reprinted in 1972). The joint editors are Karen Leigh Casselman (Research Associate in Natural History at Nova Scotia Museum, Halifax) and Julia Bolton Holloway (Director of Medieval Studies at the University of Colorado).

Eileen M. Bolton was born in Warwick in ?1903 and died in Betws-y-Coed in 1981. Eileen was one of four children of John Nunn Bolton of Dublin, an artist who won the prestigious Taylor Art Scholarship of the Royal Dublin Society in the early part of the century. Apart from short periods in Ireland and America, Eileen spent most of her life from 1950, in Wales.

Eileen Bolton was a self taught artist and naturalist. During the war years she taught art to children. She worked in stained glass and engaged in wood engraving. She was interested in lichens and used them as a source of dyes and in her book she distils the knowledge gained from experimentation. In the 1960s she donated samples of lichen-dyed wool to the National Herbarium (**DBN**) now at the National Botanic Gardens, Glasnevin, Dublin.

Fourteen lichens are described together with notes on methods of dye extraction. Seven other species are mentioned which also yield dyes. The book is illustrated with colour plates of the work of Eileen Bolton.

The editors provide an updated bibliography to lichens and dyes. Also they warn on over-collecting and advise dyers to consult libraries [and herbaria] on lichen distribution.

MAURA SCANNELL, Dublin 4

DO WE WANT TRANSLOCATIONS?

I cannot be alone in deploring the intentional interference with natural plant distribution such as the 'botanical initiative' reported by John Thompson of English Heritage (*BSBI News* 61, Sept. 1992). I well recollect no less a botanical giant than the late Ted Lousley commenting most unfavourably when a Kent botanist many years ago planted a rare orchid across the county boundary in Surrey, in an area where it might well have occurred naturally. Lousley's argument - with which I concur - was that such activities cloud the study of the distribution and natural spread or decline of species.

From this point of view, the more responsibly the planting is done, the more reprehensible the effect. If seeds are scattered carelessly by unskilled persons they are unlikely to produce plants; whereas the careful placing of a species in a suitable habitat makes it far more probable that the

transfer will be 'successful', i.e. that we shall never know whether the plant in question could have spread to the site by natural means.

Of course I am aware of the argument that since modern developments destroy habitats (such as the Hadleigh Castle site) it is reasonable to try to redress the balance by translocating threatened or scarce species. But I take the long view: ever since man became a cultivator and a trader there have been continuous unintentional changes in plant distribution, and there always will be. Naturalists must accept this, and indeed the observation of the phenomenon over periods of time is itself a fascinating study. To try to arrest these global trends by petty measures such as parochial translocations of plants seems to me to be a misuse of ingenuity.

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BOTANOPHIL OR BOTANIST?

It gave me a great deal of pleasure to read David McClintock's 'Memoir' of Dorothea Eastwood. Apart from the *Valley of Springs*, for which I am still searching, I have her books and would agree entirely about the humour and sensitivity of her writing. David McClintock mentions that Dorothea described herself as a 'botanophil' and in two passages from the *Mirror of Flowers* she defines what she means by that term:

'I have memories of rare finds whose joys I would pass on if I might, only to discover the act impossible, for they are immersed in sunlight and colour, with landscape and cloud, with physical well-being and a sense of freedom from the world's affairs, with good companionship or the delights of loneliness... in fact with any or all of those things whose sum total inspires the fine felicity of the botanophil but are in themselves untransmittable.'

I think the phrase 'the fine felicity of the botanophil' most enchanting. In another passage she writes: 'There are a great many rarities still undiscovered to keep me both humble and happy. Happy, because although the botanophil's prayer is to find every British flower, I can, by no remote possibility, ever become that miserable devotee to whom the Lord listens. Nothing could be worse than to have no more thrills in store for another summer.'

Andrew Young in his *Prospect of Flowers* also rightly describes himself as a botanophil:

'A Botanophil searches for plants, a Botanist may not have time to do so, or even the interest. The Botanophil is so much a plant-seeker that in winter, when there are few plants to find, he usually hibernates.'

JOHN ATKINS, Golbreck, Brough Sowerby, KIRKBY STEPHEN, Cumbria CA17 4EG

LETTER FROM LIMOUSIN

Dec 15th 1991

When Mike and I decided to buy this house we didn't realise the number of interesting things we were going to find as well. We arrived in the middle of December to take possession and found the whole front of the house smothered in deep purple violets (*Viola hirta* as we discovered when we had time to look at them, you try botanising at the same time as moving in !). We have left the enormous platoons of leaves because they are being eaten and Mike thinks we probably have fritillary caterpillars browsing.

March 21 - 28 1992

We had a visit from various members of the London Wildlife Trust, who, poor things, had the most appalling weather for their stay. The neighbours (mes voisines) said these were the 'giboulettes de Mars' the Limousin equivalent of April showers but mostly consisting of hail, sleet and snow! We went to the Parc National de la Brenne near Le Blanc, a lot of ponds, lagoons and heathy sort of terrain where there were Cranes, an otter, great crested grebes and despite the weather *Hutchinsia* flowering. (Sorry that should be *Hornungia* now.)

Another very interesting sight in Limousin is trees simply pom-pommed with Mistletoe (gui to the locals), Poplars are favoured hosts as are apple trees.

While our visitors were here we saw some spiky green leaves on the road edge and in the woods near Belabre there was no sign of flowers so I decided to keep an eye on them and see what transpired. There were also signs in Chateauponsac, our closest small town, to the 'Circuit des Narcisses'. We thought these would probably be wild daffodils, but the locals said, 'Non, ils sont des narcisses!' and when I went to see them in the middle of April, there were meadows full of *Narcissus poeticus*. There was also a rush of small tidy dandelions all over the fields. When Mike was over with another group of friends we saw early purple orchids growing by the roadside and the pond opposite is full of reed-mace and very loud frogs. If anyone talks about the peace of the countryside they either live in an area where all the wildlife has been killed or are going deaf. Even swallows produce enough twittering to drive you bananas. We do have some new nests in the *cabannes* (stone outbuildings attached to the *grange* behind the house, they shelter the garden from the east wind) and every so often I come across one of the local cats sitting around, looking up hopefully from time to time.

April 27th 1992

I eventually went back to the Belabre woods and what I saw at first (apart from some lesser periwinkle) puzzled me. It looked like a black tarry mess on top of a stem so I stopped the car and investigated. The black mess was bracts and as I got further down towards the river valley I discovered that these were Ornithogallums about the size of a Russel lupin, probably *Ornithogalum narbonense* and they are now appearing much closer to home, on the edge of the N145, the *Route de l'Atlantique au coeur de l'Europe*. I also found the most elegant spurge growing with these and I'm letting it grow on in a vase of water, each neat little flower put out a small seedpod, roughly globular and rough-coated. The plant is glabrous with a rosette of five smooth almost rectangular bright-green leaves on top of a 30cm stem, they subtend five stems which divide generally to give two more stems with bracts below paired flowers and one flower sitting solo. The resulting inflorescence gives the appearance of a particularly designed small circular garland of flowers and bracts and perusal of various floras makes me think it is *Euphorbia dulcis*. I know its not one that I remember seeing in England.

The spring has been particularly rewarding, we have had several seasons of different sorts of blossom. We started as one would expect with sloe (lots of it, all the locals make a sloe liqueur) and went on to real plum, then pear (wild and orchard), cherry and one or two pinky ones which I was told are almond and apricot and now apple and mayblossom and the roadsides are a delight. The communes use their roadmen for tidying up the verges very early on and quite a lot is done by hand and brush-hook and even when the grass grows the nearest half metre seems to be the only bit cut.

Mind you one can see the communes being careful with mechanical cutters as the native rock (granite) is about a foot down and there are whacking great boulders balanced on roadsides where they have been road-widening, so energetic use of Mechanical cutters would probably become expensive.

One drives between banks of bedstraw and flashes of *Veronica chamaedrys*, *Pulmonaria longifolia* and orchids (which are going over) and we are getting into the time for broom, and the *Ulex gallii* looks particularly luxuriant, its spikes are plumped out into fat green and orange wreaths. Moon daisies are coming in now taking the place of the dandelions and the farmers are desperately cutting for silage before the buttercups arrive. We've some sort of rocket-like stuff by the garage but I've no clue as to its species yet, I need to wait for the fruits. Talk about "Wait for our next thrilling instalment"! Cheers -

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OLD NAMES FOR NATIVE PRIMULAS

There are two puzzles arising from these old names that I have not found satisfactorily explained in books on common names. The name 'primrose', originally applied to various spring flowers, was, from the fifteenth century, used for *Primula veris* and *P. vulgaris* without clear distinction. Apparently it was not until the early seventeenth century that 'primrose' was more strictly applied to

P. vulgaris and 'cowslip' to *P. veris*, to avoid confusion. However, presumably the name 'cowslip', coming from the Old English 'cuslippe', was restricted to *P. veris*. The question remains as to what common name was applied to *P. vulgaris* before the fifteenth century and prior to the adoption of the name 'primrose'?

It is possible I suppose that in early times, in England, both species were called 'cowslip'. However, the name 'oxslip', which is as old as 'cowslip', may not have been applied as it is today. It is unlikely that the Anglo-Saxons would have been aware of *P. elatior* or the hybrid *P. veris* × *P. vulgaris*, therefore the name 'oxslip' may have originally been applied to *P. vulgaris*.

The other puzzle concerns the meaning of the name 'paigles'. Even Geoffrey Grigson in *The Englishman's Flora* seems baffled by this name. 'Paigles', still used in some country areas, is usually applied to *P. veris*. It is sometimes incorrectly described as the Anglo-Saxon name for the cowslip, but the name, in the form 'pagyll', was not recorded until the early sixteenth century.

The most likely explanation of the name 'paigles' is probably to be found in the Old English word 'paegels' which means 'winecups'. From around the time the name 'paigles' first appeared, cowslip blooms were used to produce a very popular country wine, therefore 'winecups' would have been an appropriate name for *P. veris*.

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ALIENS AND ADVENTIVES

ALIENS AND ADVENTIVES NEWS

FOREIGN *CRATAEGUS* FEEDBACK

May I thank everyone who sent interesting letters and specimens in response to my 'Thorny Problem' article in the last issue of *BSBI News*. I apologise for tardy replies in a few cases, but all are now dealt with. Only a single specimen was not nameable with certainty, but its leaves match yet another one growing at St Ann's Hospital, so I'm sure that it, too, will capitulate to our taxonomic regime sooner or later.

What emerged was that some of the species I discussed are indeed widely cultivated in the U.K., although the North American ones rapidly tail off northwards, to be almost unknown in Scotland. Among others, I received *Crataegus submollis* from Birmingham, *C. × lavallei* from Dublin, and *C. pedicellata* from Alderney. The latter species would now seem to be often grown as an amenity tree, and, in particular, the tightly-branched upright structure of mature standards has been found favourable for pavement planting in quite a few more north London streets than I'd realised.

The most unusual record of *C. pedicellata* comes from Howard Matcham who informs me that a farmland boundary hedge in rural Sussex is partly made of it. He opines that these bushes are likely to have been planted more than 100 years ago, yet they remained unnamed until Kew was sent material in the early seventies. Seedling germinations have not been observed because of regular hard ploughing on each side of the hedge. The locality is in the parish of Lyminster at GR TQ/035.046.

CONSUMER

Conyza sumatrensis could well thus be re-named, for this extraordinary exotic continues to devour London's habitats with insatiable zeal. Since I described its first occurrences in England (*Watsonia*, 1987), its spread has so far exceeded expectations as to change the face of our urban flora forever. Sumatran Fleabanes are now prolific, even pestilential, throughout Docklands and south-east London, locally dominating the stonier and sleazier corners of neglected terrain with plants up to 2m tall. They also occur as plentiful garden and shrubbery weeds in the City, the East and West End and north-east London, becoming more and more numerous each year. Once established, they

always persist. Here, in my own London Borough of Haringey, a single Parkland Walk specimen in 1986 was the first record ever. In 1988, scattered plants began to invade South Tottenham back streets and gardens; in 1989, they appeared in Markfield Recreation Ground, Lordship and Downhills Parks, and were plentiful on turned soil on Tottenham Marshes and by the new North-South Route from Tottenham Hale to Edmonton. Well naturalised colonies now occur throughout the borough, and by 1992 had extended out to Kentish Town, Southgate, Friern Barnet, Hampstead Heath and even Harrow Weald. Over the same period, plants have been steadily spreading from here to Enfield and Ponders End in 1989, and to Rammey Marsh and Waltham Abbey in 1990. A worrying new departure is currently observed, that this concrete-hugging thermophile is also able to adapt itself to the cool, shady glades of both secondary and ancient woodland. In 1992, several vigorous examples were noted in Sycamore/Ash woods in Abney Park Cemetery, L.B. Hackney, in regenerating Hornbeam coppice in Queens and Coldfall Wood, L.B. Haringey, and in open parts of Epping Forest, near Chingford, Essex.

The most northerly records to date are from Hertfordshire, and for those I am indebted to the keen eye of Mrs Ann Boucher who, in 1992, found small pioneer colonies around Cheshunt, Broxbourne and Hoddesdon, and even by the platform of Welwyn Garden City B.R. station. In addition, Gordon Hanson showed me a robust stand near Ware, so this species has clearly made it right up the Lea Valley northwards. Turning back to London, it is equally following the Thames Valley westwards. Again in 1992 I have seen isolated individuals at Hammersmith, Kensal Green, White City, in Ravenscourt Park and on the Chiswick river walls. The most westerly occurrences of all were in Kew Road and again in Kew Churchyard where one large plant actually embraces the immortal *Sisymbrium strictissimum*. Now Sumatran Fleabane is literally poised within a few yards of Kew Gardens themselves, if it has not already entered their gates: throughout the history of that august establishment, there cannot be many tropicals which literally blew their own way in.

Records are still lacking from Surrey west and south of Kew, from deeper Kent to the south coast and from the whole of Sussex, Berks and Bucks, so I would encourage readers to help monitoring the further progress of what may become Southern England's most serious alien aggressor for many decades.

CUT-LEAVED TEASELS ALSO GO TO TOWN

I must confess that John Killick's record of *Dipsacus laciniatus* from Charlbury, Oxon (*BSBI News* 60) had made me 'green' more with envy than ecology. But all comes to he who is patient, and kind providence shone by introducing this spectacular new species to me, also on land near a railway, before another year had passed. In May 1992, fourteen young Teasels with irregularly lacinate leaves were noted in coarse secondary scrub by the Finsbury Park Extension of Parkland Walk in L.B. Haringey. I returned in July to find them mature, rising to a formidable 2-4m tall. They were stoutly branched from below and bore numerous heads with flowers ranging through white to the subtlest nuance of milky pink. The fully grown leaves showed a most distinctive, deeply jagged scabious-like outline, and the bracts subtending the capitula were stouter, whiter, extra pungent and more broadly midribbed than those of *D. fullonum*. Indeed, several *D. fullonum*, 2-3m tall, were growing there, too, and so both species must be assumed of similar alien origin, presumably arising together from the wildflower seed which was scattered two or three years earlier as a 'nature conservation' benevolence. On a personal level, of course, I am delighted to see these plants. Nevertheless they do illustrate how we live in a semi-aware society which increasingly prescribes floral medications of quite unknown content to heal our hurt habitats. The whole moral and ecological significance of this behaviour could well stimulate more serious argument in future issues of our journal.

PLACING YOUR BETULAS

Spontaneous Birch seedlings often abound on pavements, walls, stony waste ground, old railway ballast, sandy heathland and dry woodland clearings. They are equally plentiful in town and country. They germinate particularly readily where solar heat is stored in the substrate. They grow rapidly and are remarkably drought-resistant. Our local and national literature tends to place most if not all such regeneration under *Betula pendula*. I suggest that a large proportion is actually unplaceable.

The basic conundrum is that these seedling are *almost invariably softly pubescent*, yet no flora known to me concedes that pure *B. pendula* may possess a dense covering of hairs in its youth. Or does it? Am I missing something? Is there a foolproof answer to this?

Mature *B. pendula* is always defined as glabrous, and that should be true even for juvenile or epicormic regrowth. The wild type is commonly planted in urban parks, streets and gardens, and its cut-leaved ('Dalecarlica') and weeping ('Youngii') cultivars are by no means rare in similar situations. But nearly as frequent as clear-cut *B. pendula*, there are forms intermediate to *B. pubescens* with ultimate twigs both downy and warted, with trunk irregularly silver, with a marked propensity for hard witches broom galls to form as a result of infection by the parasitic fungus *Taphrina betulina*, and with mature leaves rather roundly toothed and lobed. For a supposedly more precise classification of these leaves, we are given something called the Atkinson Discriminant Function, but for the life of me I cannot make head or tail of it. So I shall wait patiently until the day someone either explains what it means, or simply admits that *B. pendula* and *B. pubescens* have copied *Crataegus monogyna* and *C. laevigata* by melting themselves into a totally interfertile hybrid soup as a result of man's creation of secondary habitats. In any case, leaf shapes always vary on the same tree.

Moreover, whichever part of this soup an individual Birch might appear to be floating in, all its seed is fertile and all its progeny are born pubescent. Some of those progeny appear to mature beyond that pubescence, smoothing themselves into 'obvious' *B. pendula*. Others don't. I can find no correlation between pubescence patterns and habitat types, and indeed I doubt we can prove the survival of pure *B. pubescens* anywhere in the London area at this time. So I now lump all native-looking seedlings into a 'British group' and leave them there. I see no other rational solution.

Locally the situation becomes more complicated still, for we have a corresponding 'Himalayan group', too! This comprises *B. jacquemontiana* and *B. utilis*, with larger, more regularly triangular leaves and usually white trunks. But are they also distinct from each other? One author believes them to be extremes of a geographical cline. Another says they are good species, but only one is grown in Britain. Another says they hybridise not only with each other but with our 'British group' as well! So I'm not quoting anyone in this note. There's no point. I'm presenting confusions, not solutions. The whole subject has never been analysed properly in this country. Again, I can only regard the Himalayan Birches as a 'group', and indeed there are many examples planted in London's open spaces. And again they are fully fertile and doubtless self-sow. And I can picture several places where a British Birch is planted on one side of the highway and a Himalayan Birch is planted on the other side. Close to each there are numerous pubescent seedlings sprouting. But who will ever know whether they consist of one genetic soup or two?

LARKSPUR, THE ST JAMES'S VERSION

And so it came to pass in the month of April that a letter materialised upon Mary Briggs' doormat, from thence to be re-spirited to my humble dwelling-place. According to the gospel of Jean Humphrey-Gaskin, erstwhile gardener at St James's Church Piccadilly, mortal eye had witnessed the miraculous resurrection of Forking Larkspur by Kilburn tube station. Could it be a first coming for London? Would BSBI receive these glad tidings with joy? Should its rescued seed thrive and multiply in God's Garden?

In response to my new calling, I made speedy pilgrimage to that holy sanctuary and beheld what Jean had done. Whereupon I did proceed to prophecy, "Beware pubescent follicles, lest ill may befall". But all was delivered in vain, for, heedless of wise counsel, the news was made known to the people, and they flocked thither even as abundantly as the sands upon the shore, to pay homage to this wondrous sight. Yea, verily did hearts open with love, and brave voices offered their prayer of thanksgiving. Stronger still grew the plants, and, lo, they gave birth to heavenly blue flowers, some even white as snow. And the sun shone divine radiance upon them.

It was June, and faithful Jean departed this plot of earth to retire to the promised land of Sudbury Hill. Yet all the while, her spurred blossoms flourished to perfection, withered dry upon patent peduncles and left young ovaries swelling with new life. Now the day of revelation is nigh. Now by their fruits shall we know them. Now open thine eyes of enlightenment to see how smooth silk hairs of exquisite fragility doth clothe each ripening pod.

Therefore stand thee exposed, Forking Imposter, for *Consolida ajacis* be thy name!

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

CORISPERMUM LEPTOPTERUM (Ascherson) Iljin IN NORTH ESSEX

On 29 August 1992, whilst recording for the Scarce Plants Project in Bathside Bay on the Stour Estuary, North Essex (v.c. 19, TM/25.32), I encountered a totally unfamiliar plant. My initial impression was of a spineless *Salsola kali*, each branch terminating in a series of cone-like inflorescences, and each flower with a single perianth segment. Reference to Blamey & Grey-Wilson (1989) suggested it may be *Corispermum leptopterum*, but I could find no reference to the species having been recorded in Britain. The identity was subsequently confirmed by Jeremy Heath of Colchester Museum, using *Flora Europaea*. A voucher specimen has been deposited at Colchester Museum; Fig 1 is a photocopy of that specimen

The following description has been adapted from Aellen (1964):

An annual herb to 60cm, branched from the base, glabrous. Leaves alternate, linear-lanceolate to lanceolate, flat. Flowers hermaphrodite, solitary in the axils of bracts, in more or less dense spikes. Lower bracts lanceolate, completely covering the fruit. Perianth segment 1. Achene strongly compressed, 3.3-4.3 x 2-3.5mm, apex rounded, truncate or triangular. Marginal wing of achene membranous, generally 1/5 as wide as achene.

The habitat of all European species of *Corispermum* is shingle or sandy habitats.

A total of 24 fruiting plants of *C. leptopterum* were located, covering about 0.25ha of an artificial sand and shingle bank. Associated species included native shingle and other coastal plants (*Polygonum oxyspermum* ssp. *raii*, *Atriplex littoralis*, *A. prostrata*, *Cakile maritima*, *Catapodium maritimum*, *C. rigidum*, *Puccinellia distans*, *Tripleurospermum maritimum*) and ruderal species (e.g., *Diptotaxis tenuifolius*, *Lactuca virosa*, *Melilotus officinalis*, *Polygonum arenastrum*, *Picris echioides*, *Conyza canadensis*, *Epilobium ciliatum*, *Poa compressa*, *Chaenorhinum minus*) although the total vegetation cover was only around 5%.

Most of the plants were located above the mean high water mark of spring tides, but three were washed by high tides during the day after they were discovered. On revisiting the site a week later (5 September), these plants were found to have been killed, whilst the remaining plants had assumed a deep red pigmentation, very similar to that of the associated *Atriplex* species. The living plants contained abundant ripe seed, which had all been shed by the final visit on 20 September.

For a plant of no obvious horticultural interest, the question of its source of introduction must be asked. In its native state, *C. leptopterum* is found in southern Europe, but it is locally naturalised elsewhere, including Belgium, Germany and Holland. Herein lies the probable answer: the shingle bank in Bathside Bay has been progressively deposited on former mud flats over a period of about ten years. The particular section on which the plant was recorded was deposited about two years ago, using material dredged locally. However, the vessel used for dredging and pumping the material ashore apparently originated from Holland, and I presume that seeds from a naturalised population may have hitched a lift across the North Sea in this way.

It is of course premature to suggest that *Corispermum* may become naturalised in Britain. There is however little reason to suppose it could not: around ports such as Harwich and Parkeston Quay, there are usually areas of the necessary open sandy habitat, and its presence on adjacent Continental shores suggests it has sufficient climatic tolerance. The only obvious impediment is the likely fate of the present site - destined for housing, industry and recreational developments.

I am grateful to Jeremy Heath for his assistance in the preparation of this notice.

References

- Aellen, D., in Tutin, T.G. *et al.* (1964). *Flora Europaea* Vol. 1. CUP.
Blamey, M. & Grey-Wilson, C. (1989). *The Illustrated Flora of Britain and Northern Europe*.
Hodder & Stoughton.

CHRIS GIBSON, English Nature, Harbour House, Hythe Quay, COLCHESTER, Essex CO2 8JF



Photocopy of *Corispermum leptopterum*(actual size)

COTONEASTER PANNOSUS ILLUSTRATED

Reference was made in *BSBI News* Nos 42, 43 and 60 to the naturalisation of *Cotoneaster pannosus* Franchet in W. Kent., and the opportunity is now taken to publish a drawing of it by Hilli Thompson (see page 44).

C. pannosus eventually forms an upright shrub or small tree to 5m high. Leaves evergreen, short-stalked, to 35mm long; a dull but attractive sage-green colour above, white tomentose below. Mature stems reddish-brown. Flowers white with spreading petals, to 8mm across, anthers red. Sepals and flower stalks pale green, white tomentose. Flowers held in corymbs of up to 25, above and all along the previous year's branches, on short spurs (up to 6cm long) of the current year's new growth. Fruits ovoid, dull red, small (to 9mm).

Recent 'finds' in W. Kent (v.c. 16) include *Cotoneaster serotinus* (in chalk-pits), *C. submultiflorus*, *C. calocarpus* (on waste ground), and, more marginally, *C. prostratus* (pavement weed) and *C. hupehensis*. Also *C. multiflorus*, several good sized seedling bushes by a footpath.

JOHN R. PALMER, 19 Water Mill Way, South Darenth, DARTFORD, Kent DA4 9BB

RAPISTRUM RUGOSUM, BASTARD CABBAGE - A NEW THREAT TO CHALK GRASSLAND?

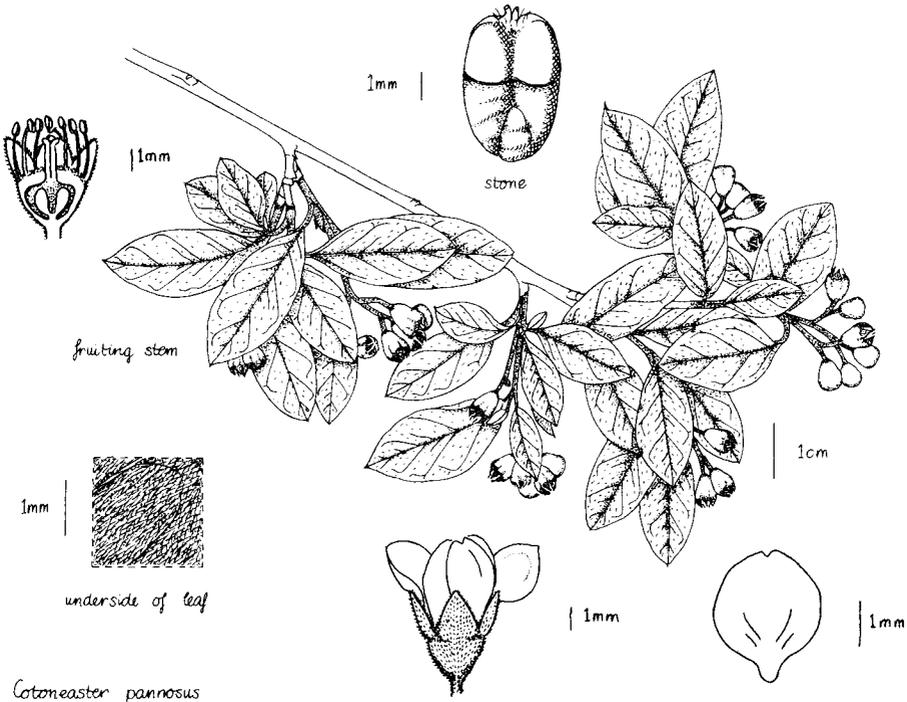
The rise to dominance of Tor Grass *Brachypodium pinnatum* (L.) P. Beauv. on chalk downland in the south east of England in the last 20 to 30 years has had a profound impact on species-diversity at a large number of sites. Its vigour in relation to other, lower growing species and tussock-forming habit allow it to oust all but the most persistent, tall or shade tolerant chalk grassland species. The appearance of another invasive species of chalk grassland would be cause for considerable concern.

Rapistrum rugosum (L.) Bergeret, an annual/biennial yellow-flowered crucifer superficially similar to charlock and rape, is an infrequent casual, native to the Mediterranean region, of disturbed places most common in the south of England. It has appeared on a large chalk grassland SSSI in West Sussex and rapidly spread through most of the site to become locally dominant.

The site concerned is a 1km long, quite steep-sided coombe aligned roughly east-west. *Rapistrum* was first noted at the site in 1981 at the same time that poaching of the sward by cattle became a problem. In addition, a new track was bulldozed down part of the site at around this time. It is not known how the species was introduced to the site but may have been a contaminant in supplementary feedstuff. At first the species was confined to the base of the coombe which has a deep, nutrient rich soil. Now, however, it is more or less present throughout the site associated with areas disturbed by the cattle. It forms a dense, monodominant stand 1 metre tall in the coombe bottom and smaller plants occur along the edge of terracettes on the coombe sides. Much of the lower parts of the site were as bright yellow in July as any field of rape. It is not grazed by the cattle or by rabbits. Interestingly, there has been no associated increase in the abundance of ragwort which might be expected given the amount of disturbance to the sward. The means by which the *Rapistrum* is spreading on the site is not clear - it has single-seeded, hairy but not barbed pods. It now also occurs alongside the long distance footpath of the South Downs Way which runs along the escarpment above the coombe. Whether it will be spread further afield to sites alongside the footpath remains to be seen.

I wonder whether this case is an indication that *Rapistrum rugosum* is about to become a frequent component of chalk grassland swards, at least in the south east of England. Could it be an example of things to come as a consequence of global warming? I would be interested to hear if anyone has encountered this species in chalk grassland in other parts of the country.

GRAHAM STEVEN, English Nature, The Old Candlemakers, West Street, LEWES



Cotoneaster pannosus

Cotoneaster pannosus del. Hilli Thompson © 1992

Hilli 24.9.1986/1992

IS QUERCUS MAS NATURALIZED IN BRITAIN

Trees referable to this European species occur along naturally wooded roadsides in the Stone and Bean areas of W. Kent (v.c 16) usually far from houses and accompanied by some smaller specimens, presumably seedlings.

In many ways similar to *Quercus petraea* but noticeable immediately on account of its much larger leaves, *Q. mas* Thore differs from it (in W. Kent) as follows:

1. Leaves 6 to 9 inches (15cm to 23cm) long
2. Leaves with up to 10 pairs of long forward-pointing leaf-lobes, lobes deeper and more parallel-sided, with no intercalary veins.
3. Lobes of involucre grossly tuberculate.

(The character of the fruiting peduncle, where present, being hairy, is not so reliable, as I have noticed *Q. petraea* with this character also).

Q. petraea is abundant in the same areas as *Q. mas* and the occasional smaller specimen appears intermediate, raising the question of hybridization.

Q. mas, where it occurs, might be misrecorded as *Q. rubra* L., which has leaves of a similar size, but with the lobes aristate and more triangular in shape.

If correct, *Q. mas* could have been introduced originally by the use of acorns from the Continent for general planting.

JOHN R. PALMER, 19 Water Mill Way, South Darenth, DARTFORD, Kent DA4 9BB

AQUILEGIA OLYMPICA Boissier

In his *New Flora of the British Isles*, Clive Stace says of *Aquilegia* that some occurrences of *A. vulgaris* L. may in fact be other species.

One of these is *O. olympica* (description in *European Garden Flora* Vol III). In 1984 I first noticed it on the chalky banks of Wrotham Hill, W. Kent; and in 1992 it was also a little further down the road growing in long grass near the Nepicar roundabout.

This roundabout, in open country and notorious from traffic reports, is not without other botanical interest. The surrounds have at least five species of *Carex*, plus some likely hybrids. An interesting glaucous grass, which I first noticed quite wild on a sandy bank 10 years ago, has still not flowered *in situ* or in my garden. Patches of *Cyclamen graecum* can also be seen not far away on the grassy verge, though doubtless originally planted. Like *C. hederifolium* it has auricled calyx-lobes, but the leaves are red underneath, and have horny edges. A Siberian peaflower, *Caragana arborescens*, used to extend along a nearby lane-side until more or less destroyed by development.

JOHN R. PALMER, 19 Water Mill Way, South Darenth, DARTFORD, Kent DA4 9BB

EHRHARTA ERECTA Lam. IN HERTFORDSHIRE

I was very interested to read Mark Hyde's article in *BSBI News* 60 because *Ehrharta erecta* has something of a history around here.

In my herbarium are two sheets both originating from Bruno Ryves. One - 'garden weed near Adelaide, S.E. Cape, South Africa. January 1988' and the second, a much earlier one, 'Seed ex Malta (where naturalised), appeared in greenhouse of B. Ryves, Kingston Hill 1974'. I extracted seed from the latter in 1976 in order to grow further herbarium material. Over the intervening 16 years this grass has become a noxious weed in both my own greenhouse and also the one at De Havilland College, Welyn Garden City where I worked until earlier this year.

This Autumn the grass appeared spontaneously in my lawn at the base of a low retaining wall thirty yards from the greenhouse. There are three plants which are now mature and shedding seed for a possible external infestation; Eric Clement saw these plants *in situ* earlier in November.

Because of the apparent ease with which this grass seems to have in perpetuating itself over a 15 year period in sheltered situations, I should hazard a guess that Mr Hyde's record did indeed originate from an E. Zimbabwe collection and travelled 25 metres from one garden to another. My two greenhouses are eleven miles apart and introduction was not deliberate, exchange of pot plants being the obvious vector.

GORDON HANSON, 1 Coltsfoot Road, WARE, Herts. SG12 7NW

CONSERVATION NEWS

BSBI CONSERVATION STRATEGY

One of the aims of the Conservation Strategy, agreed by Council in November 1991, is to create a greater awareness of the threat to our flora. The most powerful medium for doing this is television, especially when plants are news. To get them onto the screen we need to build up a collection, or know the location of, good pictures of all our Red Data Book species. One source of 'live' pictures we wish to investigate is the enormous archive of films held by the BBC Natural History Unit in Bristol: they are largely uncatalogued, at least as far as what plants are shown. The Unit has agreed that shots might be made available for news items if volunteers would help with the cataloguing.

If any member living in the Bristol area would like to spend a few days (weeks?) watching wildlife films at the BBC in Bristol, identifying and recording plants please let me know. It should appeal to all armchair botanists!

Copies of the *Strategy* are also available from me. Please send a self-addressed label with £1.50p to cover postage and envelope.

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

PLANTLIFE NEWS

From 16 September 1992, Plantlife Conservation Committee split into two, forming a Conservation Advisory Group and Plantlife Link.

The first is comprised of Plantlife members who are willing to commit time to Plantlife projects and activities, in order to further the organisation's contribution to plant conservation. It will advise the board on priorities for plant conservation and on general conservation policy, and set objectives for the conservation programme. It will also originate projects and activities to achieve these goals. Items discussed at the first meeting included the Great Hedge project, Back from the Brink (Species Recovery), threatened habitats and the acid rain report.

The second group is a forum for, and attended by, the botanical societies and organisations actively involved in plant conservation. Together these various bodies will help set the agenda for plant conservation. The aim is to advance plant conservation by facilitating the exchange of information between organisations involved in that field, and provide the context for strategic planning and co-operative venture. BSBI is represented on Plantlife Link by Elsa Wood. Several other BSBI members attend wearing individual or organisational hats. Reporting back to BSBI is through Conservation Committee.

LYNNE FARRELL, BSBI and Plantlife

GROWING WILD FLOWERS FROM SEED

One of the most frequent requests received by the BSBI is for advice on sowing wild flower seeds and on suppliers of such seeds.

For many years there has been a leaflet, originally written by Mary Briggs in 1975, and updated a number of times since then. It is now out of date in relation to suppliers who could be recommended as selling seed of native British origin.

A revision has been completed by the Vascular Plant Conservation Strategy Working Party which is serviced by BSBI and includes representatives of English Nature, the Joint Nature Conservation Committee, Plantlife, RSNL and WWF(UK) and has their unanimous support.

Copies of this A5 leaflet are now available 'free' if you send a stamped, addressed envelope to me at the address below.

FRANKLYN PERRING, 24 Glaphorn Road, OUNDLE, Peterborough PE8 4JQ.

NOTICES (BSBI)

BSBI TOUR OF HUNGARY, JUNE 1993

Arrangements for this tour, announced in *BSBI News* 60 have now been confirmed, following a visit by its leader, Philip Horton to Hungary in October. As in 1985 the BSBI party will be visiting Hungary as guests of their Institute of Ecology and Botany, and the Hungarian Nature Protection

Agency. The tour will take place between June 5th-19th. A number of bookings have already been received but places are still available. The number of participants will be limited to 25. As those who came on the 1985 tour discovered, the Hungarian flora is very rich, with many species of Mediterranean and Asian distribution, appearing alongside the more familiar ones of Western Europe. A warm welcome from our Hungarian hosts is also to be expected.

For further details please send a s.a.e to the address below.

PHILIP HORTON, Cumberland Gardens, CASTLE BYTHAM, Lincs, NG33 4SQ

NOTICES (OTHERS)

LECTURE IN LONDON

BSBI members are warmly invited to attend the meeting of the London Natural History Society at the Linnean Society, Burlington House, Piccadilly on February 16th, 1993. The meeting will begin at 6.30pm with some brief society business. The speaker is Tim Rich, who will talk about "Climate change and the British flora".

RODNEY BURTON, Sparepenny Cottage, Sparepenny Lane, EYNSFORD, Kent DA4 OJJ.

BOTANICAL EXCURSION TO BULGARIA

24th May to 5th June, 1993

The British - Bulgarian friendship Society has organised a 13 day botanical tour to Bulgaria in 1993. Vegetation in Bulgaria is rich and varied. The country's geographical location and its complex geological features are favourable for the growth of more than 3500 Central European, Mediterranean and Steppe plant species many of which are endemic to Bulgaria. During the latter part of May and during June the growth of plants reaches its zenith with tremendous beauty and grandeur.

The Bulgarian landscape is a real mosaic of picturesque mountains, wooded hills, fertile plains and cool valleys. The mountains ranging from 500 - 2990m above sea-level occupy about 30% of the territory though the foot hills increase this to about 60%.

Bulgaria has a long and fascinating history, and is the cradle of many ancient civilisations. This excursion has been designed so that participants could study the flora, especially in some of the mountainous regions, enjoy the scenery and visit some of the historic sites. The leaders are Professor E.J. Sheppard and Professor Ivan Assenov (Sofia) and the cost will be £470 half-board.

Further information and booking forms are available from: Mrs I. Purton, Secretary BBFS, c/o Finsbury Library, 245 St John Street, LONDON EC1V 4NB.

E.J. SHELLARD, 244 Ellerdine Road, HOUNSLOW TW3 2PY

CALLING ALL KEWITES!

The Kew Guild, an association of past and present members of staff of the Royal Botanic Gardens, Kew, is celebrating its centenary in 1993. If you are eligible to be a member or your £10 membership has lapsed, do contact the Hon. Sec. of Kew Guild (Royal Botanic Gardens, Kew, Richmond TW9 3AE).

1993 is a year of celebration especially the core fortnight 15-29 May, with the book launch of *A century of Kew plantsmen* by Ray Desmond and Nigel Hepper on 15 May, the Centenary Dinner in the Dinosaur Gallery at the Natural History Museum on 22 May, as well as Kewites clog-and-apron

race (volunteers?) and lectures. You can't wait 100 years for the next centenary! Only members will receive the bumper centenary issue of the *Journal*.

NIGEL HEPPER, The Royal Botanic Gardens, Kew, RICHMOND, Surrey TW9 3AB

CONSERVATION AND THE HERBARIUM

Liverpool Museum
Friday, May 14 1993

A one day meeting, organised by The Institute of Paper Conservation, in collaboration with The National Museum of Wales and The National Museums and Galleries on Merseyside is planned for Friday, 14th May 1993, to be held at Liverpool Museum.

Over 17 million specimens are held in 547 collections across the United Kingdom; this meeting is aimed at both curators and conservators responsible for their care.

Topics will include, past and current practice in the preservation of Herbaria, the input of conservation staff, environmental and pest control, appropriate storage materials, problems of mercuric chloride, and the conservation of botanical reference works, such as prints and drawings, and anatomical models.

It is intended that post-prints will be published.

Approx. cost: £30.00 members; IPC; £40.00 non-members.

Application forms are available from: The Institute of Paper Conservation, Leigh Lodge, LEIGH, Worcestershire WR6 6LB

Further information from:

NICOLA WALKER, Senior Paper Conservator, National Museums & Galleries on Merseyside,
LIVERPOOL L3 8EN (tel. 051 207 0001)

BOB CHILD, Head of Conservation, National Museum of Wales, Cathays Park, CARDIFF, South
Glamorgan CF1 3NP (tel. 0222 397951)

SIR JOSEPH BANKS AND THE AUSTRALIAN CONNECTION

Winter Lecture Series at the Royal Botanic Gardens, Kew

This Winter Lecture series celebrates the 250th anniversary of the birth of Sir Joseph Banks - the great plant collector and unofficial Director of Kew. Banks is particularly associated with plants of the Australian continent, a fact highlighted by the naming of 'Botany Bay' in commemoration of his collections at that location. The talks follow the study of Australia's fascinating flora from the time of Banks up to the present day.

Friday 29th January

Banks' Florilegium: The plants from Captain Cooks voyage

Dr Chris Humphreys

Friday 26th February

And Darwin Said Go!: Marianne North in Australia

Laura Ponsonby

Friday 26th March

Australian Rainforest Proteaceae

Peter Weston

Friday 30th April

Diwai bilong Australia: The Australian element in New Guinea

Br Bob Johns

Tickets cost £2 each and are available from the Kew shops or, by post (enclosing an S.A.E.) from the address below. Please make cheques payable to Royal Botanic Gardens, Kew.

The lectures will take place in the Jodrell Lecture Theatre (entry on Kew Road) and doors will open at 7pm. Lectures commence at 7.30pm.

SARAH OLDRIDGE, Kew Winter Lecture Series, Royal Botanic Gardens, Kew, RICHMOND,
Surrey TW9 3AB

PLANTS and PEOPLE
Economic Botany in Northern Europe 800 - 1800 A.D.
Royal Botanic Garden, Edinburgh
24 - 27 September, 1993

This Symposium is being organised by the Botanical Society of Scotland. Among the topics to be discussed are: Archaeobotany, medicinal plants and herbals, early gardens and herbaria, botanical exploration, woodmanship etc.

Offers of papers to and further details from the co-organisers:

Dr J.H. Dickson, Dept. of Botany, University of Glasgow, GLASGOW G12 8QQ

Tel. 041 339 8855 ext. 4356, Fax. 041 330 4447

Dr R.R. Mill, Royal Botanic Garden, Inverleith Row, EDINBURGH EH3 5LR

Tel. 031 552 7171 ext. 449, Fax. 031 552 0382

AQUATIC WEEDS CONFERENCES AND WORKSHOPS
ADVANCE NOTICES

September 16 - 19 1993

Second International Workshop on the Ecology and Management of Invasive Riparian and Aquatic Plants, Kostelee n.c.i., Czechoslovakia. What are the characteristics which make a species so invasive? Why are the riparian and aquatic habitats so readily invaded? Further details from:

LOIS CHILD, ICOLE, Loughborough University, LOUGHBOROUGH, Leics, LE1 3TU.

September 12 - 16 1994

Ninth EWRS Symposium on Aquatic Weeds, Trinity College, Dublin. Further details from:

JOE CAFFREY, Central Fisheries Board, Mobhi Road, Glasnevin, Dublin 9, Eire.

THE ROYAL BOTANIC GARDENS KEW
Conservation of the Biosphere
Winchester Guildhall
Saturday October 16, 1993

Kew enjoys a long established reputation as one of the worlds premier scientific institutions. As part of the Kew Guild celebrations, the Wessex Branch of the Institute of Biology joins with the Guild in exploring the contribution which The Royal Botanic Gardens, its staff and students, have made to the conservation of global biodiversity. Three eminent biologists from Kew (Prof. G.T. Prance, Mr F.N. Hepper and Mr J.B.E. Simmons) will discuss their recent work in the field and speculate on the future role of the gardens.

Further details from:

P.T. Walker, Hon Sec. Wessex Branch of the Institute of Biology, 10 Cambridge Road,
SALISBURY SP1 3BW

OFFERS

VERBASCUM SEEDS ON OFFER

I have been cultivating a number of *Verbascum* species for several years and as they are all growing in close proximity their seeds produce a high percentage of hybrids.

If any readers would like some of the seeds to grow in their own gardens, I would be pleased to send them some.

A word of caution is necessary though - 'Verbascumania' may be catching! I now have fourteen species and I'm looking for a much bigger garden.

V.A. JOHNSTONE, 25(F) Nevern Square, LONDON SW5 9PD.

RESEARCH AND TRAVEL GRANTS

PAT BRENNAN MEMORIAL FUND

The Pat Brennan Memorial Fund was established in 1985 to award travel scholarships to British botanists wishing to undertake field studies, particularly in Africa and Madagascar.

Applications are now sought for the award for 1993. A sum of £1,000 has been allocated for field work in tropical Africa or Madagascar.

Applicants should be British nationals, students or professionals without full institutional support or amateurs with proven interest in systematic botany. Preference will be given to projects involving plant exploration, projects showing originality in the investigation of biological problems that would deepen our understanding of plant evolution or projects on plant utilisation. Applications for which partial support has already been raised will be particularly welcome. The successful candidate will be expected to submit a report on the approved project by December 1993. The candidate will need to obtain permission to undertake the research from the proper authorities in the country chosen and, with that proviso, will have access to appropriate facilities and advice from the Royal Botanic Gardens, Kew.

Applications should consist of a curriculum vitae, a summary of the research proposal not exceeding 4 sides of A4 in length, an indication of other sources of funding and the names of two academic referees.

Applications or enquiries should be sent to the address below. The closing date for receipt of applications is 1 February 1993.

Secretary, Bentham-Moxon Trust (Pat Brennan Memorial Fund), Royal Botanic Gardens, Kew,
RICHMOND, Surrey TW9 3AB

BOOK NOTES

Reviews of the following books will be included in the February 1993 issue of *Watsonia* vol. **19**(2):

The correspondence of Charles Darwin, vol. 7, 1858-1859. Edited by F. Burkhardt & S. Smith. Pp. xxxv + 671. Cambridge University Press, Cambridge. 1991. Price £35 (ISBN 0-521-38564-4).

Genetics and conservation of rare plants. D.A. Falk & K.E. Holsinger. Pp. xviii + 283. Oxford University Press, Oxford. 1992. Price £35 (ISBN 0-19-506429-1).

- FLORA: the computerised key to 786 species of British wild plants, version 1.10.* Poly Enterprises Plymouth Ltd., Seale Hayne Faculty, Newton Abbot. 1992. Price £99.88.
- The Hamlyn photographic guide to the wild flowers of Britain and Northern Europe.* R. Gibbons & P. Brough. Pp. 386, incl. 163 pp. of colour plates. Hamlyn Octopus, London. 1992. Price £20 (ISBN 0-600-57452-0).
- Bob Press's field guide to the trees of Britain and Europe.* J.R. Press; photos ed. by E. & D. Hosking, artwork by M. Tebbis. Pp. 247, with numerous colour plates and b/w illustrations. New Holland, London. 1992. Price £9.99 p/b (ISBN 1-85368-104-0).
- British plant communities, vol. 2: Mires and Heaths.* Edited by J.S. Rodwell. Pp. x + 628. Cambridge University Press, Cambridge. 1991. Price £95 (ISBN 0-521-39165-2).

The following publications have been received recently. Those that will **not** be reviewed in *Watsonia* are marked with an asterisk; unsigned notes are by J.E.

- The Concise Oxford Dictionary of Botany.* Edited by M. Allaby. Pp. vi + 442. Oxford University Press, Oxford. 1992. Price £18.95 h/b (ISBN 0-19-866163-0); £6.99 p/b (ISBN 0-19-286094-1).
- **Flowers in the grass; creating and managing grasslands with wild flowers.* H.J. Ash, R. Bennett & R. Scott. English Nature, Peterborough. 1992. Price £10 (ISBN 1-8516-039-8). [A practical guide to the creation of species-rich grassland, particularly in urban areas. A key to grass species found in urban habitats is included.]
- Green Plants: their origin and diversity.* P.R. Bell. Pp. 315; ill. Dioscorides Press & Cambridge University Press, Cambridge. 1992. Price £16.95 p/b (ISBN 0-521-43875-6).
- **Grass evolution and domestication.* Edited by G.P. Chapman. Pp. xviii + 390; 2 col. plates, 11 figs. Cambridge University Press, Cambridge. 1992. ISBN 0-521-41654-X. [Fourteen contributors provided an over-view of the grass family's importance as a source of economic crops, with an emphasis on wheat, maize and rice as 'model systems' for plant domestication. Also included is an appendix summarising Clayton & Renvoize's system of classification of the Poaceae, based on their *Genera Graminum* (1986).]
- **A dictionary of Plant Pathology.* P. Holliday. Pp. xvi + 369. Cambridge University Press, Cambridge. 1992. Price £14.85 p/b (ISBN 0-521-42475-5). [A much-needed compilation of names of both crop and wild plant pathogens together with crop names and disorders, disease terminology, vectors and biographical notes on plant pathologists.]
- **Plants and microclimate,* 2nd edition. H.G. Jones. Pp. xxiv + 428; ill. Cambridge University Press, Cambridge. 1992 (1st edition 1983). ISBN 0-521-41502-0 h/b; 0-521-42524-7 p/b. [A textbook of plant physiological ecology, presenting mathematical models of plant-atmosphere relations with an emphasis on crop plants.]
- List of Vascular Plants of the British Isles.* D.H. Kent. Botanical Society of the British Isles, London. 1992. Pp. xvi + 384. Price £10 (ISBN 0-90115-821-6).
- **Growing gifts; three choices for every month.* R. Llewellyn. Chappans, London. 1992. Pp. [32] + folding colour charts on end-papers. Price £3.99 p/b (ISBN 1-85592-608-3). [A somewhat idiosyncratic selection of plants, including several species native to the British Isles, which are suitable for propagation month by month to provide useful and original gifts; a blank chart is provided for recording 'anniversaries, birthdays and other special days'. Possibly aimed at older children, this inexpensive book is full of ideas on presentation but does not include much botanical information.]
- **Claves para la flora de la provincia de Teruel.* G.M. Sanz. Pp. 453; 78 figs. Instituto de Estudios Turolenses, Teruel. 1992. ISBN 84-86982-28-6. [Keys to the plants of Teruel province, E. Spain, complementing Sanz's *Catálogo florístico de la provincia de Teruel*, published in 1990.]
- Maps of distribution of Norwegian Vascular Plants. Vol 2, Alpine Plants.* Olav Gjaerevoll. Pp. 126 of text, 37 of maps. Tapir Forlag, University of Trondheim. 1990. Price NOK 450 (ISBN 82-519-1058-7). [The second in a series of 4 volumes. The first, on coast plants, was published as long ago as 1960 but the third and fourth, on plants of S.E. Norway and 'the rest', should not be so long delayed. As well as a large scale dot distribution map there is an extensive text on each species giving altitudinal range, habitat and ecological information, usually accompanied by an outline map of its Fennoscandian distribution.] F.H. Perring.

JOHN EDMONDSON, Department of Botany, National Museums & Galleries on Merseyside, LIVERPOOL L3 8EN.

NEWS FROM OUNDLE BOOKS

I am still 'trading' despite the devastating flood which hit us in September. The books lost were well covered by insurance but it means that for a few months several of the BSBI titles will be out of print. However reprinting has already begun and it is hoped that most will be available again before the next field season begins.

Since my catalogue was published several titles of other books in my list have gone out of print, some have increased in price and some have been added which may be of interest. If you would like an update please send me a postcard or FAX me on 0832 274568.

MARGARET PERRING, 24 Glaphorn Road, OUNDLE, Peterborough PE8 4JQ

THE SHAMROCK AND THE BURREN STILL AVAILABLE

Although Boethius Press (UK), Aberystwyth, ceased trading earlier this year, copies of two books (reviewed in *Watsonia* 19(2): 158-160) which were published by that press are **still available** from the following addresses - neither title is out of print.

THE SHAMROCK, botany and history of an Irish myth is available directly from the author, Dr Charles Nelson (14 Connaught Parade, Phibsborough, Dublin 7). Due to the recent substantial changes in parity between sterling and the Irish £, prices are in punts (softback IR£17, hardback IR£32 - post and packing included) - payment by check with order please. I will accept ordinary sterling cheques drawn on a UK bank at the current rate of exchange (there is no need to purchase a bank draft); please check the exchange rate when ordering (*approx.* equivalents (Nov. 1992) are UK£18, and UK£37).

THE BURREN, a companion to the wildflowers of an Irish limestone wilderness is available direct from The Conservancy of The Burren, c/o An Bothain, Ballyvaghan, County Clare. Again prices are in Irish £; if ordering from The Conservancy please send IR£21 (softback) or IR£35 (hardback) (post and packing included) with your order.

Both titles are also available from BSBI Books, Oundle: please consult Margaret Perring (BSBI Publications, 24 Glaphorn Road, Oundle) for current price in UK£

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REPORTS OF FIELD MEETINGS - 1992

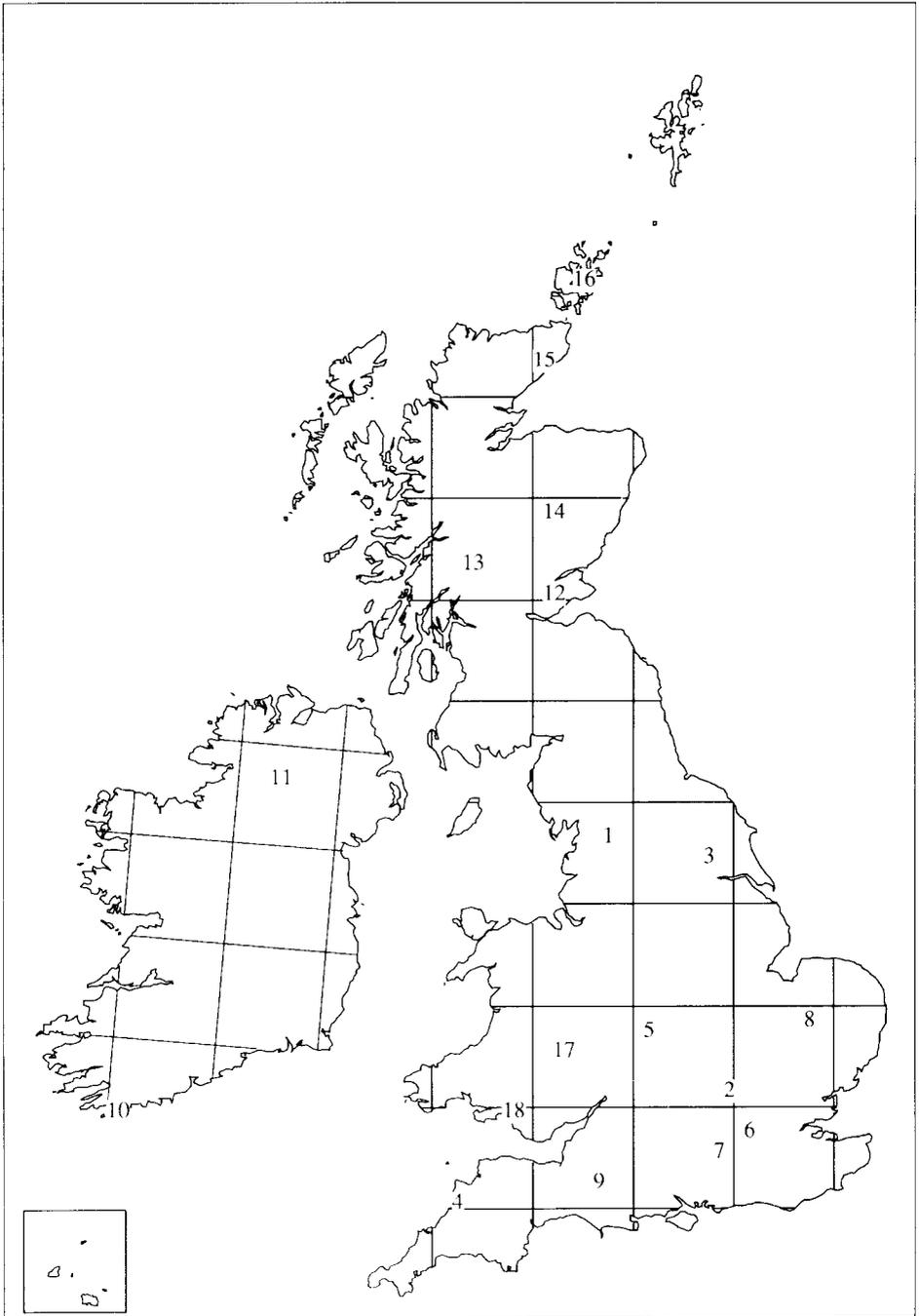
Reports of Field Meetings are edited by, and should be sent to, Dr B.S. Rushton, Dept. of Biological and Biomedical Sciences, University of Ulster, Coleraine, Co. Londonderry, N. Ireland BT52 1SA.

The approximate location of the following field meetings are shown on the map on page 53.

ENGLAND

YORKSHIRE DALES, MID-WEST YORKSHIRE (v.c. 64). 23rd-25th MAY [1]

The aim of this meeting was to record the spring flora of four 10km squares around the Yorkshire Dales National Park for the Flora of Midwest Yorkshire (v.c. 64) being compiled by Mrs Phyl



results were to be seen on an adjoining plot where winter sheep-grazing has effectively opened up very badly scrubbed, but generally more species-rich turf. Here there was a wealth of *Filipendula vulgaris* and fine stands of *Valeriana officinalis*. One bank still supports a little *Hippocrepis comosa* and *Thymus pulegioides*, and also revealed a few tufts of *Brachypodium pinnatum*. This is interesting in Herts., as it is generally very scarce, noted by the late Dr J.G. Dony (Dony, J.G. 1967. *Flora of Hertfordshire*) at only one site. It has recently started to increase considerably at his station, Therfield Heath, and has also appeared in several other chalk sites along the Hertfordshire Chilterns. The management of the site is evidently having an effect, but more careful scrub control in some places is needed, although this needs to be done very carefully to avoid damage to vulnerable butterfly populations.

Later the party examined nearby beech woodland, badly storm-damaged in 1990. Only one *Ophrys insectifera* was found, and there was no sign of a former *Neottia nidus-avis* colony, one of only two remaining in Herts. It is hoped that a respite from recent winter droughts may prove this set-back to be temporary. The party then moved off, first briefly into Bucks. at Pitstone Hill, with its superb, enviable chalk downland filled with *Asperula cynanchica*, *Thymus pulegioides*, *Hippocrepis comosa*, etc., and then by way of paths down to the relatively un-botanised Tring gap valley at Marshcroft Farm. In a very mixed landscape, we did find some unexpected interest in the form of *Sambucus ebulus* growing in a hedgerow and *Asplenium adiantum-nigrum* with *Poa angustifolia* growing from the brickwork of a bridge over the Grand Union Canal. Unfortunately the canal itself, once well-known for its species of *Potamogeton* is now an unsavoury brown soup, no doubt owing to pleasure boats.

T.J. JAMES

LOWER DERWENT VALLEY N.N.R., SOUTH EAST YORKSHIRE (v.c. 61). 20th JUNE [3]

The leader was Tim Dixon, the manager of this National Nature Reserve. Tim first directed the 16 participants to Thornton Ellers, a remarkable area with markedly different habitats, within a short walking distance.

A small area of fen is believed to be a valley mire. Although the site was abnormally dry, there were fine flowering stands of *Calamagrostis canescens* and *Thalictrum flavum*. Other species present included: *Eupatorium cannabinum*, *Lysimachia vulgaris* and *Myosoton aquaticum*. Remarkably, the alien *Erysimum cheiranthoides* was present in quantity.

In the Black Dike, at the side of the fen, nine aquatic species were recorded, the most notable being *Alisma lanceolatum*, *Groenlandia densa* and *Hippuris vulgaris*.

Members proceeded through an Alder Wood, where the most significant herbaceous species was *Carex paniculata*, then congregated for lunch on a sandy area above the valley. Here *Ornithopus perpusillus* and *Spergularia rubra* were still in flower, whereas plants of *Aira praecox*, *Cerastium semidecandrum* and *Vulpia bromoides* were in a scorched state as a result of the hot, dry weather. *Amsinckia micrantha* occurred at the edge of arable with *Anchusa arvensis*.

On an adjacent normally boggy area, members enjoyed seeing good flowering populations of *Anagallis tenella* and *Potentilla palustris*; other species present included *Carex echinata*, *Dactylorhiza maculata* subsp. *ericetorum*, *Luzula multiflora* (both subspecies *multiflora* and *congesta*) and *Viola palustris*. *Danthonia decumbens* was frequent on the drier parts. Species present suggested that acid conditions prevailed over much of the area, except at the eastern end where *Galium uliginosum* formed an almost pure bed and *Carex disticha* was also present.

The cars were then moved to the vicinity of the appropriately named Seavy Carr (seave = rush) where, in a dike, fine flowering plants of *Baldellia ranunculoides*, now rare in S.E. Yorks., was a particularly pleasing sight.

The meeting concluded with a visit to a hay meadow, near East Cottingworth, one of many such meadows in the flood plain of the River Derwent. *Oenanthe silaifolia* and *Stellaria palustris* were of particular interest to all, while other noteworthy species included *Bromus racemosus*, *Dactylorhiza praetermissa* and *Eleocharis uniglumis*. The great quantity of *Silaum silaus* was especially appreciated by visitors to the vice-county.

Two ornithological events call for comment. At lunch, the leader drew attention to the song of a hybrid Willow Warbler/Chiffchaff, a once in a lifetime's experience! Then, near to Seavy Carr, a Quail was heard calling - a 'first' for almost all, I suspect.

Members had enjoyed super weather and a diversity of habitats with most seeing several species new to them. Thanks are due to Tim Dixon for organising the meeting; his knowledge of the area was invaluable.

EVA CRACKLES

BUDE, EAST CORNWALL (v.c. 2). 26th - 28th JUNE [4]

Before this field meeting, many of the tetrads in north east Cornwall could boast few post-1980 records, and some had none at all. The aim of the meeting was therefore to record in as many different tetrads as possible. (1980 has been selected as the base date for a 'Tetrad atlas of the Cornish Flora', a choice dictated by recent land-use changes and subsequent loss of plant records.)

A group of 14 gathered on the Friday evening at the home of a local member for a preliminary talk and discussion about this very different part of Cornwall: a talk enlivened by slides illustrating the rarer plants of the area and the various habitats, particularly the Culm grasslands, one example of which is now an SSSI.

All under-recorded tetrads were searched during the Saturday and Sunday, a task made easier by fine weather. *Dryopteris aemula* had been seen at a previous BSBI meeting, based on Marsland Mouth, but on the Devon side of the border. This time it was found in SS/2.1, though not in SS/2.0, in the Coombe Valley woodlands. In addition, as is so often the case in Cornwall, it was seen in abundance on Cornish stone hedges along sheltered, narrow lanes as at Hobb's Choice and north of Gooseham.

Various brambles were recorded: *Rubus dentatifolius*, *R. leyanus*, *R. plicatus*, *R. prolongatus* and *R. rubritinctus* as well as the more common *R. ulmifolius*. *Juncus foliosus*, with few records so far in East Cornwall, was noted in valley marsh at West Youlstone, with *Veronica scutellata* var. *villosa* and *Viola palustris* subsp. *juressi*. It was also interesting to note the frequency of *Trifolium medium* on road verges as compared with *T. pratense*.

In a meeting aimed at listing as many species in as many tetrads as possible, new finds were not expected, so it was pleasing to see *Equisetum × litorale* (*E. fluviatile* × *E. arvense*), only the third record for v.c. 2, and *Lolium × boucheanum* (*L. multiflorum* × *L. perenne*). The latter was determined by P.J.O. Trist and proved to be the first authenticated record for East Cornwall.

R.J. MURPHY

EARLSWOOD, WARWICKSHIRE (v.c. 38). 4th JULY [5]

Four sites were visited during this team-led meeting. In the morning all 17 participants were taken through New Fallings Coppice (SSSI, County Trust Nature Reserve GR SP/102.743) and Big Clowes Wood (SSSI) by the WARNACT warden Ron Hill. These are ancient birch-oak woods, with a long history of botanising; many of the former treasures are now lost and active nature conservation management is needed to replace farming and forestry practices. *Cirsium dissectum* (Meadow Thistle) and *Serratula tinctoria* (Saw-wort) found in the re-entrant meadow area, once maintained by grazing and seasonal flooding but now kept open by autumn scything. In a heathy clearing the warden was delighted when members lit upon *Carex laevigata* (Smooth-stalked Sedge), a species feared to have become extinct in the county but known previously here.

In the afternoon we all went first to the Earlswood Canal Feeder Reservoir foreshore (GR SP/114.740) to look for *Limosella aquatica* (Mudwort), *Littorella uniflora* (Shoreweed) and *Eleocharis acicularis* (Needle Spike-rush). Unfortunately, in anticipation of the summer holidays, the water level was extremely high, leaving only a tiny piece of mud exposed but young plants of *Limosella* and *Littorella* were found.

The party then split up, some going to Windmill Naps (SSS1) (GR SP/096.725) to be shown around by detective-botanist-historian David Morfitt. This 30ha private woodland is now hemmed around by the M42, golf course and a possible future business park, which is why David had researched its history. Through documentary evidence and a study of the ground form (wood banks, ridge and furrow, windmill mound) he had come to an interpretation of the relative ages of the mosaic of areas in what appears at first to be one wood. Plant distribution (e.g. *Pteridium aquilinum* (Bracken), *Melampyrum pratense* (Common Cow-wheat) confirms the picture.

The other group, led by Ron Hill, went to Shelly Meadow (GR SP/14.76), another WARNACT nature reserve. This meadow hit the headlines a few years ago when the Trust literally moved half of it to avoid destruction by a new supermarket. The surviving half is a blaze of botanical beauty. The moved piece is but a poor shadow and the rescue, despite all the Trust's best endeavours, deemed a very poor second best option.

PAMELA J.E. COPSON

RICHMOND PARK AND THORPE HAY MEADOW, SURREY (v.c. 17). 5th JULY [6]

A party of 18 hardy souls, all anxious to become grass experts, gathered in the gloom in Richmond Park to begin their training in the hands-on business of grass identification. After a preliminary reminder of grass structure and a brief introduction to grass classification we began to explore the acidic grasslands of the Park to see what we could find. What we did find, of course, depends to some extent on one's view of grass taxonomy, but on the day the Park yielded 17 species in 12 genera, representing four tribes (Poeae, five species in four genera; Aveneae, ten species in seven genera; Triticeae, one species; Bambuseae, one species). The species count was not as high as it might have been, partly because of the advanced season and partly because we talked each species through in as much detail as I could call to mind.

When the rain, that had threatened all morning, finally arrived, conveniently at lunch-time, we abandoned the Park, ate our sandwiches and set off for Thorpe Hay Meadow. All the while we were fervently hoping that no-one had had the idea that now would have been a good time to give the meadow a cut. Luckily, it had not been cut and although the species count was, on this particular day, lower than I have noted in previous years, it yielded 16 species in 14 genera, representing five tribes (Poeae, five species in four genera; Aveneae, five species in five genera; Triticeae, three species in three genera (one of these in Brachypodieae if you wish); Bromeae, two species in the only genus; Bambuseae, one species). In fact, the meadow is rather disappointing, not only in its grass flora, but in its broad-leaved species as well. However, only six of the species found had already been noted in Richmond Park, and none was unexpected at either site (*Dactylis glomerata*, *Festuca rubra*, *Lolium perenne*, *Alopecurus pratensis*, *Arrhenatherum elatius* and *Holcus lanatus*).

No rarities were seen or expected, although it was good to see so much *Hordeum secalinum* at Thorpe. We did, however, on the basis of numerous common or widespread species, have the opportunity to compare a range of important tribes (five in all) and a reasonable number - for one day's work - of our more common genera (18 in all). Several of these genera were represented by a single species (*Cynosurus*, *Dactylis*, *Lolium*, *Alopecurus*, *Arrhenatherum*, *Trisetum*, *Brachypodium*, *Elymus*, *Molinia* and *Phragmites*), but a number by two (*Festuca*, *Poa*, *Deschampsia*, *Holcus*, *Phleum*, *Hordeum* and *Bromus*) and one by three (*Agrostis*). This gave us the opportunity not only to compare genera and tribes but to make critical comparisons within genera (very critical in *Agrostis* since the spikelets were tightly closed against the unseasonal weather, thereby withholding from us the secrets of their palea lengths!).

After committing to memory a total of 27 species, the party dispersed in warm sunshine.

T.A. COPE

NORTH-EAST HAMPSHIRE (v.c.12). 18th JULY [7]

Once again, the new annual *Rubus* meeting attracted an impressive number of bookings - and the more impressive in that fewer than half were from specialists in the group. Though several members were unfortunately prevented from attending on the day the eventual total was still a sizeable 17.

Queen Elizabeth Park, next to Farnborough station, was the first place visited. Open, dry oakwood on the Bagshot Sands, a public park since the 1950s, this provided a representative sample of the local bramble flora, with two notable rarities as sweeteners: *Rubus adamsii* (a single superb bush) and *R. leptothyrsos*, the latter an otherwise almost wholly Scottish species suspected of having been introduced to the area with conifers. *R. criniger*, a speciality of the Farnborough district, was strikingly fine and plentiful.

On the way to the other advertised venue, Hook Common, a stop was made at Fleet Pond in an unsuccessful attempt to relocate *R. lentiginosus*, a mainly North Wales species here in its only known Hampshire station, and a further one at Shapley Heath to inspect, in particular, *R. trichodes* - alas, like all too many of the brambles in this exceptionally early season, already virtually past flowering and into fruit.

The extensive heathy common at Hook, one of several in this corner of the county, lies on an island of Bagshot Sand surrounded by a sea of heavy London Clay. As always with such habitats, it is the fringes that tend to be the productive parts for batologists, the open heath being effectively a desert, a truth well demonstrated on this occasion. Another fact of batological life, no less in evidence, is the discomforting number of seemingly good entities that lack a name as yet. At least 50 of these are now known in Hampshire and three are particularly to the fore on this common. Apart from these, which predictably came in for some attention, the most noteworthy bramble seen was *R. hylophilus*, several patches of which were encountered along one roadside (where it would appear to be on the increase). A final chance discovery of a clump of *R. fuscicaulis*, made as the party was passing the cricket field on the way back to the cars, fittingly rounded off the day.

D.E. ALLEN

BRECKLAND, WEST SUFFOLK (v.c. 26). 19th JULY [8]

Over 40 members attended this joint meeting with the Suffolk Naturalists' Society. The morning was spent at Maidscross Hill, Lakenheath (GR TL/72.82). This SSSI is a sizeable area of dry Breck grassland both calcareous and acidic. Past gravel workings have left areas of bare ground which are at various stages of recolonisation and more recently motorbike scrambling has continued disturbance of the site. The late Marg Rutterford observed a population of *Himantoglossum hircinum* (Lizard Orchid) here for nearly 40 years: although numbers increased to about 40 plants in 1985 it has since declined rapidly and only two small leaf rosettes were seen this year.

In the established turf *Thymus serpyllum* (Breckland Thyme) was frequent together with *Trifolium scabrum* (Rough Clover), *Galium verum* (Lady's Bedstraw) and *Anthyllis vulneraria* (Kidney Vetch). Around the edges of old pits *Silene otites* (Spanish Catchfly) was still in flower and in a large, more recent pit at the western edge of the site *Silene conica* (Sand Catchfly) was found. Here too were *Phleum arenarium* (Sand Cat's-tail), *Clinopodium acinos* (Basil Thyme), *Erigeron acer* (Blue Fleabane) and *Fumaria parviflora* (Fine-leaved Fumitory). By this time the large party had attracted the attention of the American military who were concerned we might be planning to scale the perimeter fence of the airbase! After assuring them we were *bona fide* botanists and not peace campaigners we moved on to the SE corner of the site where a large colony of *Euphorbia esula* (Leafy Spurge) was admired. Along the track edges were frequent red patches of *Crassula tillaea* (Mossy Stonecrop) and *Medicago sativa* subsp. *varia* (Sand Lucerne) was abundant in a range of greenish hues.

Several members took advantage of the lunch break to visit Lakenheath Cemetery where a few late flowers of *Orobanche purpurea* (Yarrow Broomrape) were still to be seen. Others visited a roadside verge at Icklingham to see a well-established population of *Solanum triflorum* (Small Nightshade). The afternoon was spent at Ramparts Field, West Stow (GR TL/78.71) where abundant *Dianthus deltoides* (Maiden Pink) was in full flower: here too were plants of the alien *Potentilla intermedia* (Russian Cinquefoil). A walk through the rides of the King's Forest showed a

good chalk flora and a frequent Eyebright (also seen at Maidscross) which was probably *Euphrasia confusa*. On the roadside verges opposite the West Stow Country Park several clumps of the glaucous blue *Festuca longifolia* (= *F. caesia*) (Blue Fescue) were seen.

Francis Simpson was unable to lead this meeting due to serious illness; we wish him a speedy recovery and birthday greetings in this, his eightieth year!

M. SANFORD

SHERBORNE, DORSET (v.c. 9). 5th - 6th SEPTEMBER [9]

14 members attended this meeting, which was arranged to record tetrads from the underworked northern part of Dorset, in grid squares SP/6.1, 6.2 and 7.1. The weather was kind on the Saturday, and members were able to explore their assigned tetrads with assiduity. Much of the area is farmland, either arable or improved grassland, but patches of woodland and old unploughed grassland were found in several places. The day concluded with a superb tea provided by Mrs Anita Pearman, at which cards were tidied and critical material named.

Sunday was wet, but further recording was carried out during the morning. In the afternoon the party foregathered at Lydlinch Common, to see an old grassland area on clay where some scrub clearance has been carried out. In addition, pipe-laying just completed along the roadside had left a legacy of weeds such as *Anchusa arvensis*, *Diplotaxis muralis*, *Geranium rotundifolium*, *Lactuca serriola*, *Senecio squalidus*, *S. viscosus*, *Stachys arvensis* and *Veronica polita*. The Common has a rich flora, including much *Oenanthe pimpinelloides*, which also turned up in many of the nearby tetrads, and *Molinia caerulea* subsp. *arundinacea*. It is unusual in having both *Frangula alnus* and *Rhamnus catharticus* growing not far apart. Its rich sedge flora was past its best, but we saw plenty of *Achillea ptarmica*, *Cirsium dissectum*, *Hordeum secalinum*, *Serratula tinctoria*, *Succisa pratensis* and *Trifolium fragiferum*.

The meeting provided 3300 records from 23 tetrads for the proposed new Dorset Flora. Particularly noteworthy were new sites for *Epipactis purpurata*, *Persicaria minor* and *Potamogeton nodosus*; the latter represents an extension to the River Cale, upstream of its well-known localities in the Stour. Len Margetts provided authoritative remarks on roses, with welcome records for *Rosa sherardii* and *R. tomentosa*. Charles Turner recalled many of the sites he visited as a schoolboy, some of which have now been destroyed by ploughing.

The leaders would like to thank all those who helped to record, and to assure them of the value of their work.

H.J.M. BOWEN & D. PEARMAN

IRELAND

WEST CORK (v.c. H3). 30th-31st MAY [10]

14 attended the meeting on the first day, including the local Wildlife Ranger, two local botanists, a co-recorder for the vice-county and visitors from Northern Ireland and Scotland. The day was spent entirely on Sherkin Island, after almost missing the ferry! The party took up an invitation to visit the Marine Station run by Mr Matt Murphy, where they were met by Ms Karen Clarke, a student from Colorado who was working on the flora of the Roaringwater Bay islands, who had made several interesting finds. After a welcome serving of scones and tea, the party left the Station under the guidance of Ms Clarke. A brief stop was made at Cow Strand where, among other things, there was an opportunity to observe and discuss the peculiarly wide colour variation in *Anthyllis vulneraria* in West Cork. Other species seen there included *Parietaria judaica*, *Koeleria macrantha* and *Catapodium rigidum*. The party then proceeded to Foardree, on the southern coast of the island. The long walk took them along roads with very rich hedge flora, past herb-rich pastures, through *Ulex*

gallii-Calluna vulgaris heath and past some interesting calcareous flushes. A late lunch was taken at Foardree, amongst numerous plants of *Lotus subbiflorus*! The next stop was the scenic Horseshoe Bay, where *Viola lactea*, *L. subbiflorus* and *Sagina subulata* were found. These finds were considered ample excuse for a brief visit to the Jolly Roger, before catching the ferry back to Baltimore. On our return, Mr Declan O'Donnell (the local Ranger) and Mr John Early were keen to show the party a station for *Salvia verbenaca* beside the castle in the village. Unfortunately, the County Council had just mown the grass in the area but it would appear that some of the plants had managed to set seed.

Eleven were in attendance on the second day; there were some changes but all those mentioned above were present again. The morning was spent at Crookhaven, where previous recent visits by Dr Tom Curtis, Lady Rosemary FitzGerald, Mr Declan O'Donnell and Mr John Early had resulted in a number of finds worthy of inspection. Rock Island was the first stop, where *Tuberaria guttata*, *Orchis morio*, *Ornithopus perpusillus* and *Sagina subulata* were seen on the sandstone slopes. On the way back, the party stopped to view *O. morio* and *O. perpusillus* growing on a wall! The Crookhaven station for *L. subbiflorus* was the next stop. It had been found there in 1960 (Hudson, H.J. 1975. *Ir. Nat. J.* 18: 222-223). However, the area was dangerous to climb and was heavily overgrown so it was judged that, even if the *Lotus* was still there, it would be difficult to find (it might re-appear if the gorse was burnt again). However, the stop afforded an opportunity to see other occasional species, including *Carex punctata*, *Orobanche hederacae* and *Hypericum humifusum*. After lunch the party moved on to Barleycove, to view another station for *O. morio* on the lower slopes of Dough Mountain. The next stop was the pitch-and-putt course on the dunes at Barleycove, where Michael Troy was able to show *Eryngium maritimum* parasitised by *Orobanche minor*. Mr Tony O'Mahony had already reported on this (O'Mahony, T. 1992. *Irish Botanical News* 2: 26-28). The colour variation described by him in the parasite species was a cause of some confusion! Finally, several members of the party stopped at Toormore, on the return journey to Ballydehob, to see *Gaudinia fragilis*, which Ms Maura Scannell had found there on a previous occasion.

The leader would like to thank all those on the excursion who shared their knowledge of interesting sites, but Mr John Early, Mr Declan O'Donnell and Ms Karen Clarke deserve special mention. Sadly Lady Rosemary FitzGerald, who contributed much information, was unable to attend due to illness.

C.Ó. CRÍODÁIN

ARCHAEOLOGICAL SITES, CO. ARMAGH (v.c. H37). 13th-14th JUNE [11]

This was a joint meeting with the Armagh Field Naturalists' Society to record the flora of archaeological sites in the County. Twelve people took part for some or all of the time, most of them local members of one or both societies. It was a shame that no members from outside Northern Ireland were able to join us in what proved to be two days of sunshine, and a tour of interest for botanists and historians alike. The places we visited were all monuments in the care of the Environment Service of the Department of the Environment for Northern Ireland.

We began with a short stop at the Franciscan Friary in Armagh City, a 'conserved ruin' dating back originally to the 11th century. Some 44 species of flowering plant were found on the stonework, among them a single plant of *Asplenium adiantum-nigrum* 5m up, identified by binoculars, and one of *Festuca gigantea* almost at ground level.

Navan Fort, ancient capital of the kings of Ulster, has been in the news a great deal in recent years. Firstly there was a proposal to extend the adjoining limestone quarry, rejected after a public inquiry. Now a major cultural and interpretation centre is being built there - too close to the monument itself according to some archaeologists. The plant life of Navan has not featured prominently in the controversy, but it deserves more attention. We scoured the several hectares covered by the main ritual site, finding many common native woodland and grassland plants, some locally scarce ones (*Athyllis vulneraria*, *Helictotrichon pubescens* and *Knautia arvensis*), and a pair (*Mercurialis perennis* and *Vicia sylvatica*) whose origin at Navan is probably anthropogenic. Moving on to another part of the Navan complex, a pre-historic artificial pond known as the King's Stables, we were rewarded by *Carex diandra*.

Benburb Castle, a little way into Co. Tyrone (H36), is perched above a limestone gorge through which the Blackwater River flows marking the County boundary. Recent 'conservation' work was intended to benefit the stonework rather than the flora, but nevertheless there were 33 species present, mostly on the less shaded east wall. Among them were *Petroselinum crispum* (Parsley), first recorded there 60 years ago, and several other naturalised escapes.

On the second day we visited the far south of the County, going to the pre-historic sites of Annaghmare court grave, Ballykeel cairn and dolmen, and Clonlum South cairn. Neolithic people often chose dry free-draining places to build their monuments. We found this to be reflected in the flora of these sites today with our lists containing such plants as *Jasione montana*, *Ranunculus bulbosus*, *Rumex acetosella*, *Pilosella officinarum*, *Aira praecox* and *A. caryophyllea*. Annaghmare is now surrounded by forest, the other two by pasture land, but each is fenced-off, with the intention of protecting the monument, but the incidental effect of helping the flora to survive land use changes.

Our final visit was to the old churches of Killeevy, where the presence of *Ceterach officinarum* on a wall of non-calcareous stone reminded us that it is the soft lime mortar of old walls which is important to plants rather than the stones themselves.

J.S. FAULKNER

SCOTLAND

CLEISH HILLS, FIFE AND KINROSS (v.c. 85). 4th JULY [12]

A joint meeting of the BSBI and the Perthshire Society of Natural Science's Botanical Section was held to update the records held for this area of Fife and Kinross. It was also to collect information for the Scarce Plants Project.

A group of 14 met on the hill road and walked into Loch Glow along the Fishermen's track. George Ballantyne, the vice county recorder, was able to join us for the first part of the day and gave us the historical background of the area and some tips on what to look for on our walk. We visited Dow Loch and Lurg Loch recording *Carex magellanica*, *C. diandra* and *Isoetes lacustris*, and then walked along the hills and through the forestry plantation to Dumglow, an ancient fort. Here, on the southern cliffs, we were treated to a magnificent rock garden with *Geranium sanguineum* and *Pimpinella saxifraga* among the more interesting species. We rounded off the day by searching Black Loch successfully for *Nuphar ×spenneriana* (*N. lutea* × *N. pumila*).

Altogether, it was a very enjoyable meeting with the first sunshine for a week adding to the experience.

JO BABBS

BEINN AN DOTHaidh, MAIN ARGYLL (v.c. 98). 18th JULY [13]

The purpose of this meeting was to record for the Scarce Plants Project and obtain further data on the flora of this rich mica-schist mountain. For better coverage, two groups were formed.

The larger party of eight, led by Dr Marion Hughes, went by Landrover from Auch to Ais an t Sidhean apparently experiencing some exciting ford crossings after heavy overnight rain. From there it was a short walk to the rich south-facing crags of Coire a' Ghabhalach. In spite of the rather wet and misty conditions most of the known rarities were seen including up to 30 plants of *Woodсия alpina* and two of *Veronica fruticans*. Scarce species seen here were *Alchemilla glomerulans* (one plant only), *Epilobium alsinifolium*, *Galium steneri*, *Poa glauca*, *Potentilla crantzii*, *Salix lapponum*, *Saxifraga nivalis*, *Sibbaldia procumbens* and *Tofieldia pusilla*.

Meanwhile, the small party of only four, led by the author, walked from Achallader Farm into Coire Achaladair. Although the weather here was also damp and misty it was apparently not nearly so bad as that experienced by Peter Wormell's BSBI party who went there in 1978. As on that occasion we failed to locate *Cystopteris montana* but because of shortage of time a great deal of ground was never covered. Scarce species seen here were *Athyrium distentifolium*, *Carex atrata*, *C. saxatilis*, *C. vaginata*, *Salix arbuscula*, *S. lapponum*, *Saxifraga nivalis* and *Sibbaldia procumbens*.

On the return walk Michael Braithwaite made a solo diversion to look for *Bartsia alpina* which he failed to find. He was, however, rewarded with a solitary plant of *Woodsia alpina* at a previously unknown locality - perhaps the start of a new colony.

Paddy Braithwaite found the only *Rubus chamaemorus* seen during the day - much rarer on these western hills than those to the east.

Even though the weather was poor all appeared to enjoy the day's botanising and at least plan to return!

Our thanks to Auch and Blackmount Estates for permission to be there and to the Scottish Natural Heritage for allowing Richard Leishman and Richard Pollitt the use of their Landrover.

B.H. THOMPSON

ALLT AN GHARBH COIRE, SOUTH ABERDEENSHIRE (v.c. 92). 25th JULY [14]

A party of nine left the road below The Cairnwell to follow the stream up to its source in Gharbh Coire below Carn à Claise. In its lower reaches it has cut a short narrow gorge through limestone, the steep sides and ledges providing a moist sheltered habitat for a variety of ferns, including *Cystopteris fragilis*, *Gymnocarpium dryopteris*, *Polystichum aculeatum*, *Asplenium trichomanes-ramosum* and *A. trichomanes* and several plants restricted to basic rocks such as *Arabis hirsuta*, *Solidago virgaurea* and *Saxifraga oppositifolia*. On soil above were *Helianthemum nummularium* and the grasses *Briza media* and *Helictotrichon pratense*. The scarce sedge *Carex capillaris* was growing on a pocket of soil in the rock.

At 700m several long open stony flushes running into the northern branch of the stream are the habitat of a number of less common plants such as *Chrysosplenium alternifolium*, *Tofieldia pusilla*, *Epilobium anagallidifolium* and *Caltha palustris* var. *radicans*. Sadly, these flushes and the species-rich grassland above were found to be heavily grazed by sheep and deer so we were pleased to find several flowering plants of the grasses *Phleum alpinum* and *Alopecurus borealis*, both 'scarce species'. The grassland yielded *Botrychium lunaria*, *Thalictrum alpinum* and *Sibbaldia procumbens* among many other species. A rock outcrop at 800m was largely barren except for the fern *Cryptogramma crista*. Rain had persisted all day and at this altitude we were within the edge of cloud and it was deemed unsafe to ascend into the loose screes above.

Thanks are due to Invercauld Estate for permission to visit.

HEATHER SALZEN

CAITHNESS (v.c. 109). 10th-12th AUGUST [15]

A total of 27 members from as far afield as Cornwall and Orkney attended the meeting including the President, Dr Peter Macpherson who had instigated the meet and made arrangements with Clarence House, and Mr Bernard Thompson, Scottish Field Secretary, whose groundwork proved invaluable. Mr J.K. Butler, Thurso, kindly agreed to act as a Leader. Our thanks to Dunbeath Preservation Trust, Wellbeck Estates and Lathernwheel Estate for their co-operation and help.

On 10th August, after assembling at Dunbeath Heritage Centre, the party split into four groups, two groups botanising the Dunbeath Strath and Achorn Gorge, one on the foreshore between Dunbeath and the Castle, and a small mobile car group visiting the *Primula scotica* sites.

The *Mertensia maritima* on the foreshore is flourishing, and a count over the next two evenings by Lynne Farrell and Mr and Mrs B. Thompson yielded the following data: 26 adult plants; 203 juveniles; 355 seedlings - a total of 584 plants.

The inland *Primula scotica* colonies (2km from the sea) are also flourishing, with an astonishing density in places with over several hundred in the largest two colonies. Typical companion plants in the flushes were *Listera ovata* and *Euphrasia micrantha*.

In the afternoon the party visited the Castle of Mey, by invitation of our patron, H.M. Queen Elizabeth, the Queen Mother. After a tour of the gardens, where the President and Mrs Nan Macpherson presented Her Majesty with a splendid terra cotta container planted with flowering gentians as a token of the Society's esteem, Her Majesty graciously invited the party to tea in the Castle. A walk to the shore then followed, to view the *Mertensia maritima*, a plant particularly close to Her Majesty's heart. Five specimens were noted, a mature one being the finest ever seen by the author. A most enjoyable and memorable day had been had by all.

By kind permission of Mr Howden, factor of Wellbeck Estates, the second day was spent on Morven (706m), Smean (509m) and the Langwell Strath. The party accordingly split into three groups.

The upper heath of the long ridge of Smean is similar to the tops of Morven, consisting of a short sward where *Arctostaphylos alpinus* grows in profusion with *Loiseleuria procumbens* and *A. uva-ursi*, interspersed with *Huperzia selago*, *Diaphasiastrum alpinum* and *Selaginella selaginoides* and chequered with patches of *Rubus chamaemorus* fruiting profusely. Both areas have conglomerate outcrops at their summits.

On Smean, the party observed *Hymenophyllum wilsonii* growing in a rock recess and *Potentilla erecta* subsp. *stricissima*. The *H. wilsonii* record proved to be a second for Caithness.

On Morven, the outcrops near the summit are dominated mainly by *Alchemilla alpina* while the rocky ledges of the summit supports *Saxifraga stellaris* and *Oxyria digyna*. The party concentrated on one outcrop to the west, where *Saxifraga nivalis* and *Draba norvegica* had grown until a recent rockfall. No trace was found of the saxifrage, but one plant of *D. norvegica*, fruiting well, raised our damp spirits.

In the Strath, the party found *Euphrasia arctica*, *E. micrantha* and hybrids between them and also the infrequent *Festuca filiformis*, while further down the valley Miss Bullard successfully re-discovered the site of *Ajuga pyramidalis* on south facing cliffs near the river.

In the evening Mr Ken Butler organised an enthusiastic group to view *Calamagrostis scotica* near the north coast, thus providing quite a contrast.

Controversy in the Flow Country necessitated a last minute change of plan on the third day to Bla@r nam Facileag, an area of blanket bog. The weather, however, intervened and a large proportion of the party prudently declined in the face of north-east winds and driving rain. The remainder botanized up the Loop Burn, where *Sparganium natans* was observed with typical wetland plants such as *Parnassia palustris*, *Potentilla palustris* and *Taraxacum palustre*. Sandy banks had *Euphrasia scotica* and Heather Salzen discovered *Spergularia rubra*, only the second Caithness record - 50 years after the first! Alas, no sign of the real rarity we were after, *Saxifraga hirculus*, recorded from here over 80 years ago.

Eventually the party was reduced to six, as others succumbed to commonsense, and moved on to Loch Ruard, near which were found five colonies of *Listera cordata* in mature heather. From there to the bog, was a species poor area but grimly impressive with its numerous lochans interspersed with huge hummocks of *Racomitrium lanuginosum*.

A squelchy end to the meeting, but spirits raised by the farewell waves and grins of the senior party members as they brewed up by the roadside - after a day like that, you had to admit they had style!

N. BATCHELOR

ORKNEY (v.c. 111). 14th - 19th AUGUST [16]

14 BSBI members took part in the full meeting, with a further three joining for one or two days. Various local people also joined in or helped in many ways, including staff of the Orkney SNH office (Andy Doran, Alison Skene and Liz McTeague), RSPB summer warden, Gordon Anderson,

members of the Orkney Field Club and private individuals, while the Sunday meeting was held jointly with the Orkney Field Club. Landowners and farmers too numerous to name gave permission for access and helped with transport, as did bus and boat operators. 'Trenabies' in Kirkwall and the Hoy Co-op provided excellent meals and the hire of the Education Committee's Community Room in The Strynd provided a quiet and comfortable evening venue. Liz Charter, Orkney FFWAG Officer, gave invaluable assistance with many of the field and catering arrangements, the provision of maps and materials in The Strynd and with the identification of water plants.

Rousay (bits in GR HY/3.2, 3.3, 4.2 and 4.3) was visited on the Friday, in good weather conditions; three cars were taken over on the Ro-ro ferry with further 'pick up and set down' transport on Rousay provided by Chris and Mary Soames. The party split into a number of small groups (this was the pattern throughout the meeting) and covered two fine coastal areas with *Primula scotica* and *Euphrasia* spp., and the circle of inland hills with *Arctostaphylos alpinus*, *Galium sternerii*, *Sagina subulata* and possible hybrid ferns (*Dryopteris expansa* × *D. dilatata*?). Two unusual finds were *Carex curta*, new for Rousay, and *Lathyrus linifolius*, not seen in Orkney since 1961 and then in a farmyard!

Saturday afternoon was spent in the West Mainland, (GR HY/2.1, 2.2, 3.1, 3.2). Successful efforts were made to trace an old *Euphrasia* record made by the legendary Orcadian botanist, Col. Henry Halcro Johnston, 'HHJ', in Birsay and a mysterious *Carex* reported on one of the RSPB reserves. Determinations for both are awaited and for another interesting *Euphrasia* also found on a different RSPB reserve, both in Birsay. But an attempt to locate a *Carex maritima* site near the Neolithic settlement at Skarabrae failed, not helped by confusion over the Orcadian pronunciation of 'Scorradale'.

Sunday saw the party doubled by the addition of OFC members on the two-hour sail to Stronsay and its adjacent small islands, (all GR HY/6.2). Another longstanding *Carex* dispute (conflicting determinations by 'experts') was settled - *C. riparia* or *C. acutiformis*? - it was the former. Stands of *Mertensia maritima* were admired and recorded, also *Rorippa islandica*, 'firsts' for some of the party but uninhabited Linga Holm failed to disclose its *Ophioglossum azoricum* colony. Perhaps it was too late in the season? A well-known horticultural writer had past associations with Stronsay and some uncommon New Zealand shrubs were noted. *Puccinellia distans* subsp. *borealis* was, as usual, abundant on old slipways and around the small harbour. Interesting 'weeds of cultivation' included *Polygonum boreale* and *Lamium confertum* (*L. molucellifolium*) and real Flax, *Linum usitatissimum*. Torrential rain fell for a period in the afternoon but the return sail through the islands was calm.

Midges dominated the day on Monday, in Hoy, (GR HY/2.0 and ND/2.9), in almost dead calm conditions and a mizzle of rain. It was impossible to avoid them even on the 'top' among the *Arctostaphylos alpinus* but in the gullies, with *Polystichum lonchitis* and more *Galium sternerii*, in the small bays looking for *Carex maritima*, *C. extensa*, etc., and along the road verges with abundant and varied *Euphrasia* spp. they were almost intolerable. One brave party scrambled to a steep rock outcrop to check, unsuccessfully, an old *Ajuga pyramidalis* colony and it was with some relief the damp and itchy party assembled in the Lyness War Museum cafe for an evening meal provided by members of the Hoy Community Co-op.

In sharp contrast, Tuesday was fresh and sunny (we heard it was delightful and midge-free in Hoy) and the party enjoyed a fairly leisurely day. In the East Mainland (GR HY/5.0) *Euphrasia heslop-harrisonii* was re-found in its most accessible site and a cliff-top saltmarsh explored. At Number 4 'Churchill' Barrier the sand accretion now supports a very large colony of *Mertensia maritima* which seems to be generous in distributing its seeds to nearby beaches. In Burray (GR ND/4.9), a new and peculiar site for *Vaccinium uliginosum* was found by a small party who were 'rescued from drowning' by an over-helpful farmer. South Ronaldsay (GR ND/4.8, 4.9) had more large stands of *Mertensia maritima* and the recently discovered *Calamagrostis epigejos* was confirmed on a cliff-top with nearby wartime relics including *Lilium pyrenaicum*. One party were accompanied by SNH Andy Doran for his first visit to the Ward Hill Cliff's SSSI. The site was notable for its beautiful cushiony lichen and moss heath, a tiny, lime-rich quarry with *Anthyllis vulneraria* subsp. *lapponica* and *Potamogeton filiformis* while extensions to the cliff-face colony of *Eupatorium cannabinum* were plotted. Two large and vocal bulls watched the proceedings.

Wednesday had been set aside for emergency changes to the previous days' plans. In the event it became a 'do as you please' day which seemed to be especially enjoyed, allowing the sighting of a few more 'firsts' for visitors and the triumphant discovery (strictly, a re-discovery) of *Euphrasia marshallii* hitherto considered extremely doubtful in Orkney.

Local people, not necessarily taking part in all the field meetings, brought along specimens to the evening venue and these included a batch of *Rumex* hybrids, all 'new' for the vice-county. David Dupree and Charles Turner put in extra days in North Ronaldsay and Sanday respectively. It was sad that the weather and fauna made enjoyment of Orkney's arctic/alpine flora in Hoy impossible but some members were obviously impressed by the richness of our wetlands. In addition to recording British Rare and Scarce Species, not all listed in this report, 'square-bashing' was undertaken assiduously throughout the meeting, giving a welcome update in anticipation of a county Flora and records were made available to the local BRC.

Compared with the last BSBI meeting in Orkney in 1962, transport was far easier to arrange but it is still not possible to spend time in the outer North Isles without needing overnight accommodation and August is a little late for some species, e.g. most orchids and *Taraxacum*. The late and great HHJ's many 'new' dandelions have suffered demotion and a fresh approach is badly needed. Although the total land area of Orkney barely covers ten 10km squares the logistics of an archipelago make thorough recording difficult even for residents and while the apparent lack of startling discoveries during the meeting is in some ways re-assuring, further visits from BSBI members are always welcome.

This time all members were willing and uncomplaining and very helpful in so many ways, including identifications, that it might seem invidious to single out any individuals. Nevertheless, Orkney's *Euphrasia* and *Mimulus* received special attention as a result of Alan Silverside's participation. I am also very grateful for the support given, and cheerful acceptance of cramped conditions in my tiny house, by Bernard and Barbara Thompson, Alf Slack and Charles Turner.

ELAINE R. BULLARD

WALES

BURFA BOGLANDS AND STANNER ROCKS, RADNORSHIRE (v.c. 43). 20th JUNE [17]

With two trampling-sensitive habitats, a lowland wetland at Burfa Boglands (GR SO/275.610) and a small volcanic rock outcrop at Stanner Rocks (GR SO/263.583) to examine the party was limited to 20. There was no problem filling the allocation and apologies are extended to those forced to be placed on the reserve list.

With such knowledgeable botanists as Arthur Chater present, the party set to with a will to produce a species list for Burfa Boglands, which is owned by the Radnorshire Wildlife Trust. A series of wet flushes, in part covered in alder woodland lie between drier agriculturally unimproved grasslands. In all 156 species were reported including such local species as *Dactylorhiza purpurella* (Northern Marsh-orchid) and *Catabrosa aquatica* (Water Whorlgrass). A monstrous form of *Glyceria* cf. *fluitans* (Flote-grass) with the glumes elongated into leaflike structures and enormously enlarged lemmas caused discussion.

In the afternoon, the party reassembled at Stanner Rocks National Nature Reserve now managed by the Countryside Council for Wales. The track verge below the rocks supported a fine stand of *Carex spicata* (Spiked Sedge) first noted here by Dick David in 1974. The leader was relieved to have confirmed an earlier record of his of *Bromopsis erectus* (Upright Brome) - not a familiar plant to the mid-Wales botanist. The *Scleranthus perennis* subsp. *perennis* (Perennial Knawel) was noted to be in good quantity amongst the remains of spring ephemerals such as *Teesdalia nudicaulis* (Shepherd's Cress) and *Moenchia erecta* (Upright Chickweed). *Sedum forsterianum* (Rock Stonecrop) splashed the rocks yellow in places with its abundant flowers. The party then toiled up to the heights to examine the extensive colonies of *Lychnis viscaria* (Sticky Catchfly) and *Veronica spicata* subsp. *hybrida* (Spiked Speedwell) and discuss the future management of the site. A safe return for the more adventurous took in colonies of *Geranium sanguineum* (Bloody Crane's-bill) and *Hypericum montanum* (Pale St John's-wort).

Reassembled, the majority of the party then took up Dr David Humphreys' kind offer of a cup of tea on the terraces of his home just over the border in Penglai at Knill Court. A stunning garden coupled with a cool woodland walk to take in sites for *Poa chaixii* (Broad-leaved Meadow-grass)

and *Epipactis helleborine* (Broad-leaved Helleborine) completed an idyllic day of good weather, good company and a sufficient range of plants to be pleasantly taxing. My thanks to Dr David Humphreys for helping with the arrangements and to him and his wife for welcome refreshments and to the Radnorshire Wildlife Trust for permission to visit Burfa Boglands.

R.G. WOODS

CRYMLYN BURROWS AND CRYMLYN FEN, GLAMORGAN (v.c. 41). 12th JULY [18]

14 members and friends met at the Crymlyn Burrows roundabout south of Jersey Marine, on a provisionally sunny morning after heavy rain during the previous day and night. Several well-established introduced species were seen on the disturbed dunes near the road, including *Hirschfeldia incana*, *Melilotus alba* and *Coincya monensis* subsp. *recurvata* (*Rhynchosinapis monensis*). The roadside slacks are now partly overgrown by *Salix cinerea* and *Betula* spp. but in open parts still have a rich flora, with *Epipactis palustris* and *Dactylorhiza praetermissa* seen in flower. *Limonium procerum* in full flower carpeted a large sandy low at the head of the adjoining salt-marsh, among tussocks of *Juncus acutus* and intermingled with *Parapholis strigosa*, *Sagina maritima*, *Centaurium pulchellum*, *Glaux maritima*, *Honkenya peploides*, *Spergularia marina* and many other salt-marsh plants. In the main dune-system beyond the salt-marsh, where *Anthyllis vulneraria* is particularly abundant, *Oenothera cambrica* grows among the marram tussocks. The most striking dune vegetation was seen in a broad sandy dip between the seaward dune ridges, with sheets of electric blue *Eryngium maritimum*, flowering *Matthiola sinuata* and *Euphorbia paralias*. *Orobanche minor* was frequent throughout the dunes on a variety of host plants, especially *Eryngium*. Fine plants of *Cakile maritima* (some heavily grazed by *Pieris brassicae* caterpillars) and *Salsola kali* fringed the sandy drift-line, where two small but healthy plants of *Fallopia japonica* were seen growing from sea-drifted fragments of rhizome. Returning through the dunes, a Clouded Yellow (*Colias croceus*), the first of several encountered during the day, was seen quartering the dunes to visit scattered *Coincya* flowers. *Vulpia fasciculata*, which was recorded here with *Matthiola sinuata* by Lightfoot in 1773, was seen with other seeding annuals in some quantity. In the fixed dunes one of several clumps of *Artemisia campestris* was visited; the plants found at Crymlyn Burrows are ascending and almost glabrous, apparently resembling the form found on the coast of Holland. *Equisetum hyemale* is abundant around another *A. campestris* site nearby.

Pant-y-Sais Fen (GR SS/717.943), a local nature reserve managed by Neath Borough Council, was visited next. An excellent board-walk several hundred metres long gives access to this rich *Phragmites/Juncus subnodulosus* fen site with frequent or locally abundant *Carex elata*, *C. paniculata*, *Ranunculus lingua*, *Osmunda regalis*, *Typha angustifolia*, *T. latifolia*, *Rumex hydrolapathum*, *Lysimachia vulgaris*, *Equisetum fluviatile*, *Potentilla palustris*, *Berula erecta* and many other fen species. In more acid areas *Eriophorum angustifolium*, *Molinia caerulea* and *Deschampsia cespitosa* were co-dominant with a more restricted flora of acid mire species including *Dryopteris carthusiana*; *Eriophorum gracile* also occurs at Pant-y-Sais. On the banks of the adjoining Tennant Canal a fine clump of *Butomus umbellatus* was in full flower between tussocks of *Carex elata* and *C. paniculata*, with *Nymphaea alba* and *Sparganium emersum* in the water and *Cladium mariscus* on the far bank.

After lunch at Pant-y-Sais, which is an outlying arm of Crymlyn Fen, we travelled by road to the Crymlyn Fen National Nature Reserve Centre about 3km west of Pant-y-Sais, to visit the much more extensive main part of the Fen. Here there is no board-walk and recent heavy rain, combined with the effects of unusually heavy trampling by grazing cattle, had made access to some of the richest areas arduous or impossible. In the area below the Centre *Baldellia ranunculoides* was very abundant in open areas among tussocks of *Carex elata* and *C. paniculata*. *Sparganium natans* grew in a pool surrounded by *Schoenoplectus tabernaemontani*, which was generally abundant, with much *Ranunculus lingua*. A single large clump of *Schoenus nigricans* was seen; its main area could not be visited. In another pool with *Hippuris vulgaris*, a single stand of *Schoenoplectus lacustris* was strikingly different from surrounding *S. tabernaemontani*. On the eastern side of the central Glan-y-Wern canal, *Osmunda regalis* was particularly large and abundant, with large areas of *Cladium mariscus* and *Carex elata*. Here the effects of heavy grazing by cattle were again evident and had locally reduced the tall fen vegetation to a low sward, although the saw-edged leaves of

Cladium were obviously an effective deterrent. After returning to the eastern edge of the Fen a detour to the north was made to see a fine stand of *Carex limosa* in a more acidic area, with *Drosera rotundifolia* on *Sphagnum* tussocks nearby; *Eriophorum gracile* is locally abundant in similar vegetation in the less accessible north-western part of Crymlyn. The party returned to the Centre at 5 p.m. after a varied and satisfying day, made more pleasant by unexpectedly fine and sunny weather.

Q.O.N. KAY

ADVERTISEMENTS

FLORA OF THE CRETAN AREA

Annotated Checklist and Atlas

by Nick Turland, Lance Chilton and Bob Press

A new checklist and atlas of the vascular flora of Crete and the neighbouring island-group of Karpathos (the 'Cretan area' of *Flora Europaea*) is soon to be published by the Natural History Museum in London. This is the culmination of over ten years of intensive field-work.

All native and introduced species and subspecies occurring in the area are included, using up-to-date taxonomy and nomenclature. Each entry is annotated with distributional and ecological data, taxonomic notes, and copious references enabling the checklist to be used in conjunction with *Flora Europaea*. Approximately 1750 detailed distribution maps provide a large and important body of additional information.

The expected date of publication is the end of February 1993. Copies will be available to individual purchasers from the Natural History Museum bookshop; trade orders by post via the Publications Section of the Museum.

NICK TURLAND, The Natural History Museum, Cromwell Road, LONDON SW7 5BD

BOOKS FOR SALE

Cadbury et al. 1971 *Computer-mapped Flora of Warwickshire*. £40 including postage and packing.

JOHN OSLEY, Y Wern, Prices Road, Rhuddlan, RHYL, Clwyd LL18 5RA

CONCORDANCE TO BRITISH PLANT LISTS

I have produced a small A4 booklet which combines into a single alphabetical sequence all the plant names authorised either by Kent's recently published *List of British and Irish vascular plants* or by Dandy's predecessor. It allows the user to trace whether a plant listed by Dandy has the same name in Kent, has a different name or is excluded altogether. Plants listed by Kent which were not in Dandy at all are indicated by a special symbol. All names accepted by Kent can be recognised by the fact that they have his number shown against them, making good the lack of genus numbers in the index to Kent's *List*.

I believe this will be extremely useful to help people cope with the changes in recommended name in the standard list supported by the B.S.B.I. Such people include those with responsibility for the arrangement of herbarium specimens or lists of vascular plant records.

Mrs M.E. Perring has agreed to take a stock of this work, priced at £8. I can also supply it direct. Please add 70p for postage and packing.

RODNEY BURTON, Sparepenny Cottage, Sparepenny Lane, EYNSFORD, Kent DA4 0JJ

NEW FLORA OF THE BRITISH ISLES

Reprinting of this book in Winter 1992/3 has given me the opportunity to make a number of corrections and amendments.

A list of all these corrigenda may be obtained, free of charge, on receipt of a stamped addressed envelope (size DL - 8.66 × 4.33 inches).

CLIVE STACE, 'Cringlee', Claybrooke Road, Ullesthorpe, LUTTERWORTH, Leics. LE17 5AB

INDEX TO STACE'S NEW FLORA OF THE BRITISH ISLES

One of the very few complaints I have about the *New Flora of the British Isles* concerns the index. While it is perfectly adequate to find one's way around the *Flora* without too much difficulty, I need something more. I want the index to tell me what is in the *Flora*, to provide a sort of extended contents page. I want to be able to see at a glance how many species of a particular genus are included, and what they are. I also want to be able to see which names are accepted and which are synonyms without **having** to go into the text. Another feature that I find very useful is the ability to look up the authority for a Latin name.

I have therefore, with Clive Stace's blessing, compiled a fully comprehensive index to his *Flora*. It runs to 114 double column pages and includes all Latin names of whatever rank with accepted names and synonyms in different typefaces. All English names and illustrations are also fully indexed and the corrections and amendments to the first reprint are included.

It has been suggested that other members might find such an index useful. If there is sufficient interest it could be made available at a cost of about £5.

If you would like to have a copy please let me know at the address below (do not send any money at this stage).

GWYNN ELLIS, Dept. of Botany, National Museum of Wales, CARDIFF CF1 3NP

1993 BOTANY TOURS AT HOME AND OVERSEAS

(Led by BSBI Members)

March 11 - 25	Northern Cyprus	Tony Kemp
April 4 - 18	SW Turkey	John Akeroyd

Further details from: Friends of Cambridge Botanic Gardens, Cory Lodge, Bateman Street, Cambridge CB2 1JF (tel. 0223-336271)

April 20 - May 4	W Crete	John Akeroyd
May 9 - 16 & 16 - 23	Corsica	John Akeroyd

Further details from: Simply Travel Ltd, 8 Chiswick Terrace, Acton Lane, London W4 5LY (tel. 081-994-4462).

June 25 - July 3	Poland (incl. Bialowieza forest)	John Akeroyd
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Further details from: ACE Study Tours, Babraham, Cambridge CB2 4AP (tel. 0223-835055).

August 6 - 13 Wild flowers of South Devon Ailsa Burns [formerly Lee]
 Lots of good plants, not wildly energetic! - catering for all abilities including complete beginners.
 Further details from: Slapton Ley Field Centre, Slapton, Kingsbridge, S. Devon TQ7 2QP (tel. 0548 580466).

July 12 - 15 Arctic Sweden (Abisko) Michael & Sue Scott
 Further details from: Scottish Field Studies Association, Kindrogan Field Centre, Enochdhu, by BLAIRGOWRIE, Perthshire PH10 7PG (tel. 0250 881286)

May 23 - 29 Dordogne, France John Ounsted
 Further details from: Le Faurou Study Centre, Orliac, 24107 Belvès, France (tel. 01033.53.29.13.14).

FIELD STUDIES COUNCIL OVERSEAS - PROGRAMME 1993

March 26 - April 4	Flowers of Morocco	Frank Perring & Adrian Bayley
April 7 - 14	Easter on Guernsey	Heather & Mark Wilson
May 12 - 26	Into the Heart of the Balkans: A Botanical Tour of Albania	John Akeroyd
May 14 - 28	Orchids of the Causse and Cevennes	Beverley Lewis & Helen Springall
May 29 - June 5	The Fortunate Isles: Flowers and Birds of Scilly Isles	Mark Wilson & Colin McShane.
May 29 - June 12	Butterflies, Flowers & Nature Photography: Eastern Pyrenees	John & Anne Bebbington
June 16 - 30	Flowers of the Central Apennines	Ros & John Bennett
June 26 - July 10	The High Pyrenees: Flowers, Birds and Butterflies	Ruth & Allan Dawes
October 22 - November 5	Autumn Flowers of the Greek Peloponnese	Chris Grey-Wilson

Field Studies Council Overseas Courses -1993

The FSC Overseas courses offer expert tuition in a wide range of subjects including botany, butterflies, landscapes, ornithology, photography and painting. Destinations ranging from Islay and Mull to the Apennines, Pyrenees, Morocco, Hungary and as far afield as Spitsbergen, Java and New Zealand. The courses are designed to suit all levels of experience, including some specifically for families. Several other courses of a more general nature are also included in the 1993 programme, all with the aim of providing **Environmental Understanding for all**.

For a copy of our full programme contact:

FIELD STUDIES COUNCIL OVERSEAS (BSBI), Montford Bridge, SHREWSBURY SY4 1HW
 (tel. 0743-850164)

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