

BSBI

Scottish Newsletter

2008

No 30



Alpine Pearlwort

BSBI SCOTTISH NEWSLETTER

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CONTENTS

Editorial.....	2
Chairman's Report - 2007.....	3
Scottish Annual Meeting	4
Draft Minutes of 2007 AGM	7
BSBI Committee for Scotland	9
Abstracts of Exhibits.....	10
Chairman's Remarks - 2008	20
Scottish Field Meetings - 2008	21
Request re Grasses, Sedges & Rushes	22
Fumitories in Kintyre	22
Calamagrostis in VCs 83 & 84	25
Indian Summer in VC 84	26
<i>Cochlearia officinalis</i> in Britain	28
Corbie Den, Kincardineshire	29
Scottish Brambles in 20th Century	31
BSS Alpine Field Meeting	34
Community Woodlands Project	34
Pteridological Meetings	36
Scottish Officer News	37
BSBI Threatened Plants Project.....	39
Plantlife Rare Plant Site Monitoring.....	41
Plantlife Walks - 2008	42
Book Review: <i>Wild Flowers of Coll & Tiree</i>	43
Space Filler	44

Editorial

Issue No 30:- Pearl Anniversary.

For those living furth of Scotland whose accounts are running low, I keep back the labels and send off a copy of the Newsletter with an appropriate letter. In 2007 there were 13 and I took the batch along to the post office in the local corner shop. I had flattened them a bit before going and when the man at the counter asked if they would go through the slit, I managed to push one through, so he gave me 13 ordinary second class stamps and subsequently bagged the batch. The following day I was passing a dedicated Post Office and went in to send of a batch to organisations. The counter girl picked one up, put it quickly and gently at the slot and said "40p each". I told her that the previous day, at another PO an identical envelope had been pushed through. "That's the point, they must be able to fall through. The recipients for your other despatches will have to pay the excess and handling charge". At home, I looked up my copy of receipts from Edinburgh and noted that the main batch had indeed been sent at this higher rate. I was on tenterhooks awaiting a barrage of complaints and comments about mean Scots and had decided that I would pay the 'fines'. However, four days later I began to receive top up cheques without other than favourable comments and with a week most had responded; so I relaxed. It is a tribute to the contributors to the Newsletter that these accounts are replenished so quickly.

It is interesting to look back at the Minutes of the BSBI Council Meeting of 7.11.1978 in which there is a statement that Committee for Scotland requested funds for a proposed Newsletter at an estimated cost of £30 per issue, including postage. It was approved in principle.

Congratulations to Michael Braithwaite who has been nominated by Council as President Elect and to Catriona Murray who has been nominated for election as an Honorary Member.

Appreciation is due once again to John Hawell for proof reading, Gwynn Ellis for supplying the address labels and Jackie Muscott for arranging the photocopying and despatch of the Newsletter. The plant for the cover illustration was chosen in view of the anniversary. Thanks are due to John Howell and Dennis Bradley for their help in producing the photograph from my slides taken on Ben Lawers. *Sagina saginoides* is certainly a Scottish 'Pearl'.

Peter Macpherson, "Ben Alder", 15 Lubnaig Road, Glasgow G43 2RY

Chairman's Report at the BSBI Scottish Annual Meeting of 3 Nov 2007

RICHARD PANKHURST

The chairman has less to say than usual because his remarks are overshadowed by the BSBI Scottish Officer and his annual report, of which you have all received a copy. The Scottish Committee has nominated Chris Miles to be its new chairman, and he is due to be elected this afternoon. There are also two committee members, Heather McHaffie and Alistair Godfrey, who have each served three years already, and who are both standing for re-election today.

The committee is involved in consultations from time to time, and both the Site Condition Monitoring (SCM) work and the contributions by the BSBI to the SNH project to record the Lesser Butterfly-orchid (*Platanthera bifolia*) in Scotland are examples of this. We were also asked to comment on a plan for Marine National Parks in Scotland, in so far as these might include some shoreline, but without knowing where these are going to be, it was difficult to contribute very much. In August a revised and longer list of plants for LBAP (Local Biodiversity Action Plans) was issued, with 212 (was 75) species, of which 100 are in Scotland. This would best be handled by vice-county recorders.

A map of this year's and next year's field excursions was shown with the projector during the meeting, and can be seen on the website. I attended the educational excursions to St. Cyrus and Dunnyduff Wood and enjoyed being a tutor on these occasions. I also attended the BSBI Conference in Shrewsbury in September, which included some discussion of future projects for the BSBI which was brought up again earlier this morning.

There are a number of changes to our list of vice-county recorders. We thank Neil Taylor for recording in West Perth (VC 87) and welcome Liz Lavery and Paul Stanley (from the Isle of Wight) who are taking over. Similarly, our thanks to Margaret Barron who is standing down from Easterness (VC 96) and welcome to Sarah Smyth, Alastair Ross and Jeff Waddell who are now taking it on. Notice how we are now arranging for there to be more than one recorder in some cases (especially for the larger VCs) and I can say from personal experience that this can work very well. Lastly, our thanks to Alison Rutherford, who has been recorder for Dumbarton (VC 99) which will be taken over by John Holland.

The Scottish Annual Meeting, which had been held at the Royal Botanic Garden Edinburgh (RBGE) in 2006, was expected to go to Glasgow in 2007. However, owing to the expense of hiring premises in Glasgow, the meeting returned to RBGE. On entry to the Balfour Building on Saturday, 3rd November, it was good to see an alert trio at the reception desk to speed the registration process. Pat Cochrane, Jane Jones and Dot Dahl deserve thanks for their cheerful efficiency. The final number of registered delegates was around 120.

The programme in the Lecture Theatre began at 10.00 am. Richard Pankhurst, Chairman of the BSBI Scottish Committee, opened the meeting and introduced Mary Gibby, the Scientific Director of RBGE, who gave us a heartwarming welcome and hoped we would return to RBGE next year. Then Richard Gornall, President of the BSBI, reported on progress with BSBI databases. The database for the British and Irish flora is at Leicester University and includes scientific and common names, some of which need to be changed in the light of new taxonomic research. A taxonomy panel of about eight or nine people will discuss the naming of plants and agree on a BSBI standard list, which will be updated as required. The database for the Vice-county Census Catalogue is updated by incorporating new records published in *Watsonia*. The BSBI would like to create a user-friendly database of herbaria, based on the book by D Kent and D Allen. There are 599 institutional herbaria in the British Isles, of which 88 are in Scotland. Some are easy to trace but others are obscure. Of the 88 in Scotland, 20 are unknown, three untraced and one destroyed. Richard Gornall appealed to the audience for information on the obscure herbaria. Richard Abbott, President of the BSS, reported on the symposium entitled: *History, Evolution and Future of Arctic and Alpine Flora*, held at St. Andrews from 25th – 27th June, 2007. Proceedings from the symposium will be published in the new international journal, *Plant Ecology and Diversity*, to be launched by the BSS in 2008. There will be two issues of PED in 2008, but four issues per year thereafter. The Editor is Dr Laszlo Nagy and the Editorial Board so far has 23 members from 11 countries. Submissions reporting experimental and analytical studies of plants in cold climates will be especially welcome. RA then reported on the BSS field project on community woodlands in Scotland, being carried out in collaboration with the Community Woodlands Association. Help with the fieldwork for this project would be much appreciated. For further details, instructions and recording sheets, see the BSS website (www.botsocscot.org.uk) and page 34 of this Newsletter. Deborah Long, from Plantlife, updated us on Important Plant Areas (IPAs), of which there are 42 in Scotland. The database will shortly be completed and it can already be viewed on the plantlife website (<http://www.plantlife.org.uk/uk/plantlife-saving-species-plant-areas>).

html). Investigations and management trials are being carried out for *Linnaea borealis*. A Scobie is working on *Spiranthes romanzoffiana*. Other projects include the Pond Alert project, especially relevant for garden pond owners, and the Lower Plants and Fungi project, intended to raise awareness of these groups among members of the public. David Pearman, Hon Secretary of the BSBI, in the absence of Kevin Walker, the Development Officer, outlined future recording plans for the BSBI. These include surveys of threatened species, e.g. *Gentianella campestris*, *Astragalus danicus*, etc, and surveys of rare and scarce species. There is also a plan for UK Plant Surveillance, based on methods for birds and butterflies and involving repeated monitoring of fixed plots or transects. Another project will involve tetrad mapping. Kevin Walker would like feedback on these plans (e-mail: kevinwalker@bsbi.org.uk). The BSBI project on hybrids is complete except for queries and is hoped to be finished at the end of the winter.

After coffee (set up by Liz Kungu) we returned to the Lecture Theatre to hear Jim McIntosh report on his year's activities as BSBI Scottish Officer. He has continued the computerisation project but there is still more to do and contractors are needed. He appealed to the audience for contractors. He also appealed for newshounds to write pieces for the Scottish pages of the BSBI website. Thanks were due to Jane Squirrell for maintaining these pages. Site Condition Monitoring has continued but more volunteers are required, both as fieldworkers and as a leader. A workshop will be held at Battleby in April. Two educational field meetings were held in 2007 for beginners. He expressed thanks to Dot Dahl for taking the bookings for these meetings. JMCI has met 20 of the Scottish Vice-county Recorders and hopes to meet the other 20 over the next year. He is a great admirer of VCRs. He finds out how they work and tries to help them whenever he can. He also realises the importance of communication and has been working on a data-sharing agreement between the BSBI and the North East Scotland Biological Records Centre (NESBReC). Jim then spoke about the Species Action Framework, which involves many organisations concerned about the natural world, including the BSBI. Launched in 2007 at Hopetoun House, the Species Action Framework is a 5-year plan, during which it is hoped to make a difference to 22 species in need of action for conservation, including 4 vascular plants (*Melampyrum sylvaticum*, *Platanthera bifolia*, *Pyrola media* and *Salix lanata*) and one charophyte, the Bird's-nest Stonewort. Records of plants, populations and sites are needed.

The BSBI members then attended their Scottish AGM, after which everyone dispersed for a two-hour break, during which they could have lunch, catch up with friends, view the Exhibition and browse among the books. A delicious variety of

lunch dishes and snacks were on sale in the Restaurant, thanks to Ted Gotier and his staff.

The Exhibition, expertly managed by Heather McHaffie, was held in the Conference Room. Thanks are due to her and to all the Exhibitors for an absorbing display. In the Board Room Annexe there were further delights in the form of a tempting book display by Summerfield Books. Under new management, they have decided to concentrate on new titles and have ceased to stock second-hand books. All the pristine, colourful covers of the new books were irresistible!

After lunch we resumed in the Lecture Theatre. Four of the Exhibitors spoke about the subjects of their displays. Then we had an innovative item on the programme, a Question Time, when members of the audience could put questions to a panel consisting of Richard Abbott, David Pearman, Jim McIntosh, Chris Preston and Richard Pankhurst. Questions covered vice-counties, climate change, native and alien species, re-mapping and data availability. Lively discussions developed.

During the ensuing tea break the Exhibition was dismantled to clear the Conference Room so that tables could be set for the evening meal. Then we returned to the Lecture Theatre once again to hear our guest speaker, Chris Sydes, tell us *How Nature Conservation Really Works*. Chris Sydes is a Policy and Advice Manager for SNH, but he said he would be speaking partly on behalf of SNH and partly as a private person. His lecture was intended as a wake-up call to botanists in Scotland, but he started by telling us that conservation in the UK has never had it so good. For instance, the Killarney Fern has more protection in Scotland than anything else, the UK BAP has 109 Scottish species on its list and the SNH Species Framework will focus on 6 species for conservation action. As a result of the Nature Conservation (Scotland) Act, 2004, we have a duty to maintain biodiversity and we now have the Scottish Biodiversity List. Today there are four conservation agencies in the UK whereas there used to be one. The Public Services have changed and are more open and receptive. The digital revolution means that information gets to everyone via the internet and things happen faster. At this point we were thinking that plant conservation is in a healthy state, but then Chris told us that bird conservation is better. There are ten times as many bird species conserved, with five times as much money spent, as for plants. Higher plants only have 0.67% of the total spend. The staff allocation to plant conservation is 1.5, whereas to bird conservation it is 6 and soon to be 8. In Scotland the Wildlife and Countryside Act ensures that 38 plant species have protection, but all birds are protected. On the European Protected Species

list there are 4 plant species, but birds have a special directive of their own, protecting all bird species. The RSPB was formed in 1891 and led to the Protection of Birds Act in 1954. Plantlife was formed in 1989. Do we have to wait 63 years (until 2052) for a Protection of Plants Act? Plants need more protection now. Protection is required for individual species, sites and the wider countryside. Re-introductions could be considered. More volunteer botanists are required. SNH needs field experts to gather data. A good working partnership is needed between government (including SNH) and representatives from the botanical societies. Plantlife, the BSBI, the BSS and the Wild Flower Society could apply steady, friendly pressure on government for more protection for plants and sites. Botanists must make their needs known. After questions from the audience David Pearman gave the vote of thanks.

During the lecture the Conference Room had been transformed into a dining room for our evening meal. Douglas McKean made an efficient wine waiter and had been busy with arrangements beforehand to ensure that all ran smoothly. The chef and staff of the dining room at RBGE had cooked a delicious meal and the staff served it to us. Many thanks to Douglas and to the chef and his staff for such a pleasant event. At the end of the meal we had a colourful slide show to round off the evening. Thank you to the presenter and contributors for entertaining us.

The format introduced last year for this meeting had proved a success once again. In fact it was even better this time because not only did we have a full programme of talks, but also we had an extended lunch break to give us time to view displays and catch up with friends. Jim McIntosh is to be congratulated for having found such a winning format. Thank you to Jim and to all his helpers who worked so hard to bring about this success.

Acknowledgement: With consent from the Editor, the above report has been adapted from the version published in BSS News No. 90, March 2008.

Draft Minutes of the BSBI Scottish AGM held in The Royal Botanic Garden Edinburgh at 11:45 am on Saturday, 3 November 2007

1. Welcome

The Chairman welcomed all to the BSBI Scottish AGM.

2. Apologies

Apologies were received from Mark Watson, Lynne Farrell, Kevin Walker,

Stephen Bungard, David Hawker and Paul Stanley.

3. Minutes of AGM 4 November 2006

The minutes from the 2006 AGM (published in the Scottish Newsletter 2007 No 29) were approved as a true record of the meeting.

4. Business arising

None that was not covered elsewhere on the agenda.

5. Chairman's report

The Chairman delivered his report on the activities of the Scottish Committee and the work of the BSBI in Scotland. For a full account see the article on page 3 of this Scottish Newsletter, "Chairman's report at the BSBI Scottish Annual Meeting of 3 Nov 2007".

The Chairman introduced Chris Miles, who had been nominated by the BSBI Scottish Committee as new Chairman. Chris Miles is VCR for Dumfriesshire (VC 72) and has previously been a member of the BSBI Scottish Committee. He currently works as an area manager for SNH.

6. BSBI Treasurer

Michael Braithwaite highlighted the request for a new BSBI Treasurer; he will be standing down from this post to take up the role of BSBI President in 2008. The role of Treasurer was advertised in BSBI News. The post is not only about managing accounts but involves working with botanists and BSBI Council, as a team, to help the smooth running of the Society.

7. Scottish Newsletter report

Peter Macpherson reported on the problems he had recently encountered in despatching Newsletters, with the new pricing regime being implemented differently by different Post Offices. Contributions for the 2008 Scottish Newsletter were requested and should be sent, on disc, to Peter Macpherson by the end of February 2008. The Chairman thanked Peter Macpherson for his continued work on the Scottish Newsletter, and Jackie Muscott for her assistance with the membership list and mailing.

8. Field Meetings 2007 and 2008

Richard Pankhurst, on behalf of Mark Watson, reported that seven field meetings had taken place during 2007, of which two, to St. Cyrus and Dunnyduff Wood had had an educational theme. The programme for 2008 has now been finalised and will consist of eight meetings. Details of which can be found on

the Scottish pages of the BSBI website (<http://www.bsbiscotland.org.uk/Excursions.htm>). In addition they will be published in the BSBI year book.

9. Scottish Committee Nominations

The BSBI membership welcomed Chris Miles as the Chairman elect for the Committee. Heather McHaffie and Alistair Godfrey were re-elected as Committee members.

10. Arrangements for evening meal

Jim McIntosh informed those present that the evening meal would take place in the Conference Room at RBGE.

11. AOCB

Jim McIntosh asked VCRs to check the number of records that have been extracted from the Map Mate hub for their VC and compare that number with the number of computerised records that they know they have. This will enable any inconsistencies to be resolved.

Jim McIntosh informed the meeting that a VCRs' workshop was planned for 24th to 29th August 2008 at Glenmore Lodge. Nick Stewart has been invited to do a session on Charophyte identification. The workshop also aims to help the new VCRs of Easternness with recording.

The BSBI membership then thanked the retiring VCRs, Neale Taylor, Alison Rutherford and Margaret Barron for their long service to the society, and the retiring Chairman, Richard Pankhurst, for his services on the BSBI Scottish Committee.

Jane Squirrell November 2007

BSBI Committee for Scotland

Composition of the Committee from November 2007 to November 2008: Chairman – Chris Miles; Vice-chairman – vacant; Secretary & Treasurer – Jane Squirrell; Field Meetings Secretary – Mark Watson; Committee Members – Alistair Godfrey, Ian Green, Jane Jones, Heather McHaffie, Lindsay Mackinlay, Edna Stewart and Jeff Waddell.

Representing SNH – Robin Payne; Representing Plantlife – Deborah Long; Representing Botanical Society of Scotland – Heather McHaffie (dual role); Repre-

senting Forest Enterprises Scotland – Jeff Waddell (dual role); Representing National Trust Scotland – Lindsay Mackinlay (dual role).
Attending – Jim McIntosh BSBI Scottish Officer.

At the AGM on 1st November 2008 Ian Green, Edna Stewart, Jane Squirrell and Jeff Waddell will retire, the latter two being eligible for re-election. Nominations for the Committee, signed by two members of the Society normally resident in, or recorders for, a vice-county in Scotland and with written consent of the candidate, who must also qualify as above, should reach the under noted at Royal Botanic Garden Edinburgh, 20A Inverleith Row, Edinburgh EH3 5LR by 30th September 2008.

Jane Squirrell (Hon Secretary) J.Squirrell@rbge.org.uk

Exhibit Abstracts

Fife and Kinross (VC 85) 2007 finds

George Ballantyne

Alien species found recently and apparently established include Yellow Foxglove (*Digitalis lutea*), the 'Kashmir Purple' cv of *Geranium clerkei* (not 'Kashmir Blue' as stated in *BSBI News* 2007, 106: 32), Round-leaved Mint (*Mentha suaveolens*), Narrow-leaved Ragwort (*Senecio inaequidens*): and as casuals; Tall Yarrow (*Achillea distans*), Brome-grasses (*Bromus commutatus*) and *B. secalinus*, and Chinese Houses (*Collinsia heterophylla*). In addition the native weed Northern Knotgrass (*Polygonum boreale*) and the rarer Greater Chickweed (*Stellaria neglecta*). A Bramble new to Scotland *Rubus largifiscus*, was shown accompanied by *R. pyramidalis*, new to VC 85.

Easter Ross 2007 (VC 106)

Brian and Barbara Ballinger

Linnaea borealis was located flowering profusely in a plantation pinewood on the Black Isle, this being the first record in VC 106 for 50 years. In a review of plants on tracks, *Crassula tillaea*, not known in Easter Ross before 2000, has now been found in more sites, being known from 10 hectads. *Scleranthus annuus* was seen near a proposed windfarm site, the first post-2000 record for this species, which was more common before 1970. *Gnaphalium sylvaticum* is doing reasonably well, having been seen in 16 x 10km squares since 2000 and *Radiola linoides* has declined less than thought, with records in 13 hectads since 2000. A genetic study of *Orthilia secunda* resulted in a search which yielded sightings in 3 old and 4 new hectads, 14 sites in all. *Myosoton aquaticum* was discovered in

October 2007 in a wood at Dingwall, probably its most northerly record, and *Calamagrostis epigejos* was found at Torrachilty Wood, confirming an old unpublished survey record.

Repeat recording rare and scarce species in Berwickshire

Michael Braithwaite

A cycle of recording in the VC had been completed in the period 1987-2006. A new cycle had been begun in 2007. 6 fig grid references had been routinely recorded for all populations of notable species from 1987, including those now recognised as locally rare or scarce in the *Berwickshire Rare Plant Register* 2004. These now provide the basis for repeat recording. The new cycle of recording aims to improve this by mapping populations at 10m scale. The Gordon area NT64 had been repeat recorded in 2007. Many new populations of rare or scarce species had been discovered by more thorough survey and by visiting ground not surveyed in the past, but there were also disturbing losses. Not all populations could be monitored by a simple repeat survey: arable weeds and the aquatic plants of mud are examples of species that may only appear sporadically. Of the populations that could be monitored, 16 out of 53 populations, 30%, were considered to have been lost in 20 years. These had all been small populations in 1987, many in unfavourable habitat such as tiny fragments of former moorland or partly-drained wetlands and most of the losses were not attributable to current causes of change such as eutrophication or climate change: rather they were the consequences of much earlier large-scale habitat losses. Of the 16 fine populations none had been lost but two orchid populations at Gordon Moss had declined due to long-term changes to a partly-drained wetland.

What has caused the spread of Northern Dock *Rumex longifolius*?

Michael Braithwaite

It was postulated that climate change may be allowing *Rumex longifolius*, a northern species, to spread south even at a time when many southern species are spreading north because of a link with humidity rather than temperature. This spread may be linked to an ability to exploit a humid spray zone along our road network.

Caithness plants

Ken Butler

A project to survey the Prostrate Juniper (*Juniperus communis* ssp. *nana*) in Caithness was described. Photos showed the male and female flowers as seen in

June when the plants can be sexed. Results so far show that there are four substantial communities which have a good balance of male and female plants and are generating new young plants, but show signs of having been damaged by muirburn.

A new site for the Curved Sedge (*Carex maritima*) has been found on Reay Golf Course. It has hundreds of flowering heads. This is a nationally rare sedge and all the old known sites have been checked. This is the second new site in recent years.

Roxburgh and Selkirk records 2007

Rod Corner

Campanula lactiflora (Milky Bellflower): new record for VC 80. A large colony of this garden escape was found by Douglas Methven in a remote part of Bowmont Forest. *Diplotaxis tenuifolia* (Perennial Wall-rocket): first record since 1958 for VC 79 and first record since 1868 for VC 80. *Rumex x hybridus* (*R. x arnottii* {Broad-leaved Dock x Northern Dock}): a common hybrid whenever the parents *R. obtusifolius* and *R. longifolius* come together. *Cotoneaster cashmiriensis* (Kashmir Cotoneaster): new record for VC 80. A large single bird sown bush on a south facing quarry ledge known since 1985. *Hordeum jubatum* (Foxtail Barley): first definitive record for VC 79 for this conspicuous roadside grass by Luke Gaskell. *Philadelphus inodorus* subsp. *grandiflorus* (a Mock-orange): new vice-county record for VC 80. A large bush, beside the path next to the River Tweed from St Boswells to Dryburgh. *Poa palustris* (Swamp Meadow-grass): second recent record for VC 80. After finding this species on the Tweed in 2006, several new sites have been found along this river in 2007 by Michael Braithwaite in VC 81 and VC 80 by Luke Gaskell and myself. *Senecio cineraria* (Silver Ragwort): casual found by Luke Gaskell in Gattonside.

West Sutherland, 2007

Pat and Ian Evans

Assynt provided the first surprise of the year, the chance find of Alternate-leaved Golden-saxifrage (*Chrysosplenium alternifolium*) near Inchnadamph, new to VC 108 and North-West Scotland. The second NVCR is slightly more problematic, a thriving population of Water Figwort (*Scrophularia auriculata*) a long way from the nearest mainland record; probably introduced, but how and from where?

After ten years, we managed to re-find Lesser Tussock-sedge (*Carex diandra*) on Faraid Head, finally confirming it for VC 108. The discovery by Gordon Rothero of a fourth, small, population of Brown Beak-sedge (*Rhynchospora fusca*) makes us ask how much more there may be in our unexplored areas.

Lycopodiopsida, Pyrolaceae and “What happens when the petals fall off?”

Kathy Fallowfield

A collection of photographs of Scottish *Lycopodiopsida* and the five species of Scottish *Pyrolaceae*, showing the plants at various stages of development, was presented. In addition an exhibit named “What happens when the petals fall off?” displayed 40 photographs of various rare, scarce and common plants, all from the North of Scotland, showing the different berries, seed-heads, capsules, etc that are produced once the plant has completed flowering.

Differentiation and diversity in the species complex *Cocllearia officinalis* s.l. in Britain

Estelle Gill

See subsequent article

Scottish specimens from the herbarium of Kathleen Blackburn

Geoffrey Halliday

Dr Blackburn was a member of the Botany Department at Armstrong College (later Newcastle University) from 1918 until her retirement in 1958. Her head of Department was Professor JW Heslop-Harrison whom she accompanied in the 1930s on a number of his visits to the inner and outer Hebrides. Her herbarium eventually reached Lancaster University and a few of her most noteworthy Scottish specimens were exhibited. These included three records made by Heslop-Harrison and now generally discredited: *Carex capitata* and *C. rariflora* from South Uist, and *C. capillaris* from Rhum, the last specimen being the only one known from there. Just as remarkable is a specimen of *Tuberaria guttata* from Montrose collected, together with *Carex maritima*, in 1834.

A Greenland Miscellany

Geoffrey Halliday

The exhibit included a map showing the progressive northern limits of British species in east Greenland between 70 and 72 N. Low arctic species such as disappear first, continue up to 77 N. Some such as *Saxifraga hirculus* and *Alopecurus borealis* occur only in the northern half of Greenland while *Saxifraga cernua*, *S. rivularis* and *S. nivalis* are circum-Greenlandic. Also exhibited were photographs of the endemic *Saxifraga nathorstii*, an amphidiploid of *S. oppositifolia* and *S. aizoides*, and of the very rare Greenland species *Draba sibirica* and *Potentilla stipularis*.

Draft RPR and some new finds from Bute (VC 100)

Angus Hannah

Specimens of casuals from a demolition site in Rothesay were displayed. Some of these were subsequently passed to Douglas McKean, who confirmed *Chenopodium polyspermum* and identified *Amaranthus hybridus*, thought to be only the third Scottish record. *Phalaris canariensis* and *Lupinus arboreus* (the latter from an unusual upland agricultural site) were identified during the meeting. All of these were new to Bute.

Also on display were drafts of a Rare Plant Register for the Island of Bute and a check-list of plants from the island of Cumbrae. The latter was finalised (in so far as this is ever possible) after a summer field meeting (See BSBI News 106, 54-6). The RPR will be sent in electronic form to interested parties. It is hoped that the check-list will be published shortly if funding can be arranged.

Conservation of genetic diversity in *Trollius europaeus*

Helen Hipperson

Genetic diversity is likely to be important for maintaining the sustainability of populations across a species range. For example, loss of genetic diversity may affect population viability and reduce the potential to adapt to environmental change. The main function of designated sites for conservation, such as National Nature Reserves and Sites of Special Scientific Interest, is to conserve biodiversity. Whilst conservation effort is predominantly focused at the level of species diversity, it is less clear how effective designated areas are at conserving intraspecific diversity. Conservation of genetic diversity is likely to be increasingly important towards the range-edge of a species where populations are likely to be genetically differentiated and subject to different environmental pressures than core populations. I have investigated the effectiveness of designated sites as a network to conserve species' genetic diversity by examining genetic data from across the distributional range of *Trollius europaeus* in the UK.

Recording Angus (VC 90) 2007

Barbara Hogarth and Pat Gaff

Visits to stretches of riverbank in April, May and June yielded update records for several noteworthy species including *Adoxa moschatellina* (Moschatel), *Chrysosplenium alternifolium* (Alternate-leaved Golden-saxifrage), *Gagea lutea* (Yellow Star-of-Bethlehem), *Circaea lutetiana* (Enchanter's-nightshade) and *Circaea x intermedia* (Upland Enchanter's-nightshade).

In July and August we continued our exploration of Craig Mellon (Glen Doll) whose steep south-facing slopes are guarded by conifer plantation and a jumble

of rocks and screes. The area is remarkably rich in plants. The boulder slopes support a large population of *Cryptogramma crispa* (Parsley Fern) whilst the adjacent grassy slopes support *Helianthemum nummularium* (Common Rock-rose), *Gentianella campestris* (Field Gentian) and some spectacular stands of *Vicia sylvatica* (Wood Vetch). We also found a new locality for *Pyrola media* (Intermediate Wintergreen).

We have also been looking closely at well-known plants. The two subspecies *Potentilla erecta* (Tormentil) have a widespread distribution in Angus. Whilst looking at the variation in form found across the dunes at Barry Buddon we came across *Potentilla anglica* (Trailing Tormentil) - a new VC record for Angus - plus the hybrids *Potentilla x suberecta* and *Potentilla x mixta*. We also started to look at the distribution and form of *Diphasiastrum alpinum* (Alpine Clubmoss) more closely having recorded a population in the Sidlaw Hills for the first time in over 150 years.

Dwarf Birch in Peeblesshire

David McCosh

A sheet of Dwarf Birch (*Betula nana*) was shown which recently came to light in the herbarium of RBG, Edinburgh. The collector was JN Brown of the Fleming Society in 1855 and the location was Lee Pen, a hill of moderate height north of Innerleithen. This record at last substantiates the report in Hudson's Flora Anglica (1779) by Sir James Nasmyth of Posso that it occurred 'In Twedale'. The location forms a useful link between an old record from north of Carnwath in Lanarkshire and more recent occurrences in Teesdale and Northumberland.

New endemic Hawkweeds from Arran and Kintyre

David McCosh

Four sheets of recently described hawkweeds (*Hieracia*) from VC 100 and VC 101 were shown. The two from Arran, *Hieracium arranense* and *Hieracium sannoxense*, come from opposite sides of the island and are placed in Section Subalpina despite both areas being near sea level. Those from Kintyre, (*Hieracium kintyricum* and *Hieracium vinifolium*) come from a remote district near the west coast and were formerly regarded as very untypical variants of *Hieracium rubiginosum* of Section Vulgata.

British Pteridological Society

Frank McGavigan

The British Pteridological Society exists for fern enthusiasts. (We get excited about horsetails and clubmosses as well.) The Society publishes three journals

a year, holds regular meetings and field trips, and organises fern related conferences and overseas excursions. Our web site (www.eBPS.org.uk) contains a wealth of information on ferns and related subjects including lists of fern books and ferny places to visit. There is an active (and friendly) group in Scotland which organises its own meetings and outings, which non-members are welcome to join. In particular we have planned for 2008 a weekend in Dumfries and Galloway, where we aim to see as wide a range of native ferns as possible, making it particularly suitable for beginners; and another weekend in Strathcarron, where we will be getting to grips with the identification difficulties of male ferns, in particular the *Dryopteris affinis* agg., and which seasoned botanists may find useful. We will also have several day trips when as always we will record our findings, both common and rare, give help with identification, but most of all have an enjoyable time in some of the most beautiful parts of Scotland. Further information from: frank@mcgavigan2.demon.co.uk.

Interesting finds in the Lothians and across Scotland Douglas McKean

Exhibited was the alien fern from Madeira, *Christella dentate*; a well known weedy species in the greenhouses at RGBE but a little surprising to be found growing in a cistern in the gent's toilet in the RBGE herbarium. (Named by Chris Page).

Also exhibited were the following new VC records from Jackie Muscott, Bill Hay, Stuart Maxwell and Douglas McKean. *Calamagrostis x gracilescens* (VC 83) *C. epigejos* (VC 82, 84); *Silene armeria* (VC 83, 85); *Silene coeli-rosea* (VC 85); *Agrostemma gracile* a weed in beetroot, previously only known from W. Kent (established) and W. Suffolk, possibly overlooked/confused with *A. githago* and finally four plants from Edinburgh, *Linaria maroccana* and *Persicaria capitata* both ruderal, *Orobanche minor* an overlooked specimen from Leith Docks and *Crataegus monogyna* f. *laciniata* from Bute as well as Edinburgh. This taxon, unlike normal *monogyna*, has large cocks-comb like stipules and larger deeply divided leaves.

Differing Profit and Loss Accounts P Macpherson & JR Hawell of Two 'Lesser' Orchids in Lanarkshire (VC 77)

Lesser Butterfly-orchid (*Platanthera bifolia*). The 1962 *Atlas of the British Flora* gave two 10 x 10km sq records which were well within Lanarkshire and a NW boundary zone one which could have related to Possil Marsh, from which it was listed in 1865, 1891 & 1955. In the 1990s it was recorded twice by competent botanists. Despite diligent searches, it cannot now be located at any of

the locations and there are, at present, no known sites in VC 77. Lesser Twayblade (*Listera cordata*). The 1962 Atlas also listed three records. From 1990 on we have recorded it in 10 hectads, with records from 22x 1km sqs. It is a much more difficult plant to detect than the above, but the apparent increase is largely due to the fact that it has been looked for specifically when recording in the more upland peripheral areas.

Asplenium septentrionale and Gordon Rothero *Dactylorhiza traunsternerioides* var *lapponica* in VC 96 and other botanical interests on Dundreggan Estate

Dundreggan estate has recently been bought by Trees for Life, a conservation charity which aims to restore the 'Caledonian Forest'. The current task on the estate is the development of a management plan and I was contracted to carry out a bryophyte survey. Much of the estate is typical of the ground between Loch Ness and Glen Affric, a few broken outcrops of acid rock and lots of wet heath and mire. Several burns flow through the estate and some have wooded ravine sections with a flora including *Viburnum opulus*, *Melica nutans* and *Orthilia secunda*. The wet heath provides the major botanical interest on the estate; it has a huge population of *Betula nana*. On the higher and more exposed ground the dwarf birch grows with *Arctostaphylos alpinus*. The mire areas are a little disappointing but do have hummocks of bog mosses; *Sphagnum fuscum* is frequent and the nationally scarce *Sphagnum austini* widespread. Though the underlying rock appears acid, there are numerous base-rich flushes where *Saxifrage aizoides*, *Eriophorum latifolium* and *Tofieldia pusilla* can be found and also one stand of *Dactylorhiza traunsternerioides* var *lapponica*. The biggest surprise came on an otherwise rather disappointing crag; the discovery of four small clumps of *Asplenium septentrionale*, another new plant for VC 96.

The meeting of mating systems Markus Ruhsam

Hybridisation between taxonomically distinct plant taxa is an important force in plant evolution and it has recently been suggested that hybridisation between inbreeding and outcrossing plant taxa may have been an important keyfactor in generating taxonomic complexity in genera such as *Epipactis* and *Euphrasia*. Hybrids with novel characters and a selfing mating system could be the prototypes of a new species. The selfing *Geum urbanum* and the outcrossing *G. rivale* were chosen as study system to provide empirical evidence for these suggestions. Molecular markers and morphological characters were used to study pure British populations of *G. urbanum* and *G. rivale* and one hybrid population from Edinburgh. Individuals in the hybrid zone do not form a continuum be-

tween parental genotypes and phenotypes. They cluster together with pure *G. urbanum*, pure *G. rivale* and form an intermediate F1 and *G. rivale* backcross group. There is a noticeable lack of individuals between *G. urbanum* and the F1 group. That might be due to a high genetic load from *G. rivale* combined with a selfing mating system from *G. urbanum* leading to hybrid inviability. This could be a major barrier to the establishment of a hybrid with novel characters and a selfing mating system.

Built-up areas

Alison Rutherford

The closure of the local health shop necessitated trips to Glasgow. The richness of some lanes and kerb-sides was remarkable. Two plants of *Eriobotrya japonica* (Loquat) were seen on waste ground near Bath Street, and in one steep link between Renfrew and Sauchiehall Streets a row of seedling *Anemanthele lessoniana* {*Stipa arundinacea*} (New Zealand Windgrass), was noted to be well established between the footpath and garden wall. Neither plant is in Stace. *Eriobotrya* has one record in *Alien Plants* and there are two for *Anemanthele* in *Alien Grasses* neither seemingly very recent for the grass which enjoys Central West Scotland; a Devon-raised plant is very exuberant in my garden. Both of these appear new to Scotland, showing even city centres are worth a look. Photos of the site and the plants, with living samples, were on show.

Avena strigosa Schreb., a comparison of botanical records and field survey data

Maria Scholten

Avena strigosa (Bristle Oat) occurs in two forms in the British Isles: as a weed and as a crop. Its occurrence in the wild depends on seed spills as the species does not establish. New Atlas data showed a steep decline in its occurrence: of the total 503 records less than 50 date from after 1987, with concentrations on the Western and Northern Isles. Vice-county records for the Outer Hebrides, courtesy Dr R Pankhurst, show 35 recent records for the Uists, 9 for Harris and 9 for Barra, while 1976 is the most recent record for Lewis. BSBI funded fieldwork on the Uists in 2006 established the extent of its current cultivation. On North Uist, South Uist and Benbecula in 86 square kilometres fields with *A. strigosa* were observed. Of the approximately 500 counted fields, only a couple had *A. sativa*, and this was mixed in with *A. strigosa*. Overall, the Uists are the remaining major area of cultivation, with an important ecological function for the machair grasslands. Within Europe *A. strigosa* has become a rare crop and the Uists are likely the largest area of its cultivation in Western Europe.

Juncus filiformis (L.) in the Outer Hebrides (VC 110)

Paul Smith

A new site for *Juncus filiformis*, adding to only one known site in the Outer Hebrides, is described, along with a hypothesis for its colonisation. The new site is in unremarkable habitat in western blanket mire (and therefore the species may be more widely distributed than our current knowledge suggests), but quite different from the typical habitat for *J. filiformis* in Britain. Some photos of the new locality and a specimen were exhibited.

In search of the clubmoss *Lycopodium lagopus* in Westernness VC 97

Ian Strachan

The clubmoss *Lycopodium lagopus* has been newly reported from Britain by Fred Rumsey (2007) based on a specimen from Geal Carn (VC 96) and an earlier specimen collected in 1896 by ES Marshall from 'Garbh Bheinn, Fersit Forest' (VC 97). Its taxonomy is controversial and until recently it was considered to be a subspecies or variety of the Stag's-horn Clubmoss *Lycopodium clavatum* (sometimes named var. *monostachyon*). This taxon is predominantly found in the Arctic and sub-arctic and had not been previously recognised in Britain.

On 10 October 2007, following an unsuccessful search of Garbh-bheinn on the east side of Loch Treig, a healthy population which appeared to match the description of *L. lagopus* was found ca. 4km to the north on Sron na Garbh-bheinne, at 840m altitude. Specimens and photographs were exhibited, showing the characteristic growth form with many upright branches and a predominance of single strobili with short peduncles. Botanists are urged to seek out other montane locations for this taxon (a good winter project!) which is surely under-recorded.

Having taken over the chair from Richard Pankhurst after the last Annual Meeting I should thank my predecessor for steering the committee from the 'amateur' era before we had a Scottish Officer to the 'professional' era when we had Jim McIntosh in post. I remember the sense of relief in the committee that at last we had a full time officer to take forward initiatives and build relationships with other organizations. Jim has done a great job and by the time you read this I hope we will have confirmation of renewed funding that will mean he can continue with the ambitious programme of work BSBI sets him. One benefit has been the Scottish Pages on the BSBI website which I recommend you visit regularly.

One feature of the Scottish Committee now is the representation we have from partner bodies like National Trust for Scotland and Forestry Commission. Not only does this bring opportunities like data sharing, it also helps share views on issues of mutual interest, like the concern over the *Phytophthora* sp outbreaks. This fungal pathogen, apparently originating in America, is spreading on nursery stock and is currently restricted to a couple of NTS gardens. NTS is therefore already providing guidance to its staff on ways of control and containment. It has the capability of causing serious damage to native species of the *Ericaceae*. The Committee agreed to register our concern with Scottish Government to support appropriate steps to control and eradicate this threat if possible.

Another vexatious issue for the Committee has been how we respond to damaging development proposals. We have obviously discussed the Menie golf proposal and David Welch in whose vice-county the site falls is providing comment on the botanical impacts of the proposals. BSBI see ourselves as a source of definitive botanical data and while happy to comment on strategies and government policy affecting wild plants we can not campaign on many individual planning decisions. Other organizations, like Plantlife are better placed to do this but Menie is exceptional so we will follow the case with interest.

Finally as we are reminded by Alex Lockton we shouldn't forget that we have just two years to record plant distribution in the latest date class (2000 – 2009) for the update of the Atlas maps in 2010. In Scotland in particular it remains a challenge to get adequate coverage for all hectads as mapped in the Atlas. Those of you who use the BSBI web site will have seen the introduction of the Tetrad maps scheme. This will highlight even more the sparsity of recording coverage at this greater level of detail in many of our vice-counties compared to

parts of England and Wales. As ever, we need more people recording systematically as this is the only way we are going to map the distribution as opposed to the range of species to allow greater analysis of trends.

Scottish Field Meetings 2008

Full details of the following meetings will be found in the Year Book

May 11*	Wester Kittochside, Lanarks	C O'Reilly
May 18*	Arthur's Seat, Midlothian	J McIntosh & D McKean
June 14*	Killiecrankie, Perth	J McIntosh & M Robinson
June 20-22	Girvan, Ayrshire	D Lang & J McIntosh
July 12*	Loch Lomond NNR, Dunbarton	J McIntosh
July 18-21	Thurso, Caithness	K Butler
July 26-Aug 2	Isle of Islay	M Ogilvie
Aug 8-11	Glenshee, E Perth	M Robinson

(* training meeting)

Additional BSBI Field Meeting

May 22	Arthur's Seat, Midlothian	Clare O'Reilly
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Basic introduction to vegetative grass identification

The first vegetative grass identification training day on Sunday the 11th May at Kittochside, East Kilbride is now fully booked. Due to popular demand we have organised another vegetative grass training day in Holyrood Park, Edinburgh.

The day will begin with a morning session in a classroom at Historic Scotland Ranger Service's Education Centre. This will cover the vegetative differences between the grass, sedge and rush families and vegetative characters used to identify grasses. In the afternoon there will be field work in Holyrood Park to

practice using a key to identify common vegetative grasses in a range of acidic, neutral and calcareous grassland habitats. Resources for vegetative grass identification will be compared and evaluated. The leader is a trained adult education teacher and the day will be carefully structured, aiming at complete beginners, but with tuition differentiated to suit more experienced attendees.

Participant standard: No previous knowledge of grasses is required.

Location: Historic Scotland Ranger Service Education Centre, Holyrood Park

Time: 10:15am for 10:30am start

Please book with Mrs Dot Dahl, Easter Ballindalloch, Glen Lednock, Comrie, Perthshire PH6 2LY e-mail dotdahl@talk21.com who has kindly agreed to take bookings on behalf of the leader, as places are limited. Further details, including accommodation listings, will be provided on booking. If you have any specific learning needs or queries, please contact the leader by email clare@ptyxis.com

Request

Grasses, sedges (Cyperaceae) and rushes wanted; the latter two in fruiting stage— any species. In relation to the first, I would like to target *Poa* species with particular emphasis on montane forms within the *P. nemoralis* and *P. glauca* group. Observing collecting protocols, most useful are plants with a bit of root so that the plant may be grown on in successive years. Please send any material to the address below. P & P refunded if required.

Mike Wilcox—32 Shawbridge St, Clitheroe, BB7 1LZ

Michaelpw22@hotmail.com

Fumitories in Kintyre – And a Species New to Scotland

IAN TEESDALE

The New Atlas of the British and Irish Flora shows five of its ten *Fumaria* species as occurring in Vice-county 101, 'Kintyre'. I put the name in inverted commas because properly it belongs only to the peninsula that extends southwards from the southern shore of West Loch Tarbert; and it is in that sense that I shall use it in the article. I need also to make it clear at the outset that my knowledge of any of the fumitories as growing plants is limited, and stems mostly from attendance at one of Heather McHaffie's invaluable *Fumaria* workshops two years ago. In it she confined herself to the species known to occur north of the border; and she provided text and illustrations that have since

been of great help as aids to identifying the species I have seen in Kintyre.

Of the five species in the New Atlas recorded from VC 101, one, the rare endemic *F. purpurea*, has only a single location there, on the east side of Knapdale and so outwith our peninsula. Interestingly, it is from this hectad that the late Archie Kenneth, then Recorder for VC 101, recorded his sole location (a Stronachullin garden) for this species, as noted in *The Flora of Kintyre* that MH Cunningham and he published in 1979; so it is likely that this species has persisted in the same location there for the ensuing twenty years. The recently formed South Kintyre Botany Group, to which I belong, has not so far extended its explorations beyond the northern end of the peninsula, and we have not seen *F. purpurea* in our area.

This species and *F. capreolata*, likewise uncommon but evidently less so than the purple species, share one feature that distinguishes them both from the eight others recognised in the New Atlas; in both the pedicel is described (Rich & Jermy 1998) as 'rigidly recurved in fruit'. In mid-May 2007 one of our members found an unfamiliar fumitory beside the entrance to Campbeltown Grammar School at the edge of the town, that turned out to be *F. capreolata* (confirmed by Heather McHaffie). It was a large, vigorous plant, with creamy white flowers, and, crucially, the stiff, recurved pedicels of the pollinated flowers at the bottom of the raceme. Another feature, remarked upon in the Clapham Tutin & Warburg 1958 Flora and also in Heather's handout, but not mentioned in Stace 1997 nor in Plant Crib '98, is described in CTW as 'corolla ... sometimes becoming pink after pollination'; and this could be clearly seen on the plant at which we were looking. This is a new hectad for *F. capreolata* in the peninsula, and possibly in the VC depending into which vice-county the two more northerly current records in the New Atlas actually fall.

F. officinalis is, according to the New Atlas, by far the most widespread of the British species. Here in Kintyre however it is the least often encountered of our three common species. In our garden on the outskirts of Campbeltown it is abundant (when allowed by the gardener – myself – to be so!); but I have only otherwise seen it once, in municipal bedding in the town centre. The two other species, *F. muralis* and *F. bastardii*; not always certainly distinguishable one from another, at least by me, are sporadic in their appearance almost anywhere within the urban area, and further afield in waste ground and waysides, but never plentifully, and often not persisting in a particular location. I know of nowhere in Kintyre that in any way resembles the dense ribbons of *Fumaria* species around the perimeters of arable crops in East Lothian, shown to us by

Heather McHaffie in the course of her *Fumaria* workshop. There are indeed arable crops grown in the peninsula, particularly in the flat and fertile ground to the west of Campbeltown known as The Laggan, and it was there that I first looked for fumitories; but none were to be seen.

One other species, by some considerable margin the most uncommon of those dealt with in this article, remains to be mentioned as a Kintyre plant: *F. reuteri*. I first noticed what eventually turned out to be this species in 2006 in the garden of our neighbour across the road. The house had recently changed hands, and the new owner had not had an opportunity to do much in the way of gardening. In particular her small vegetable patch, about the size of a large room, had not carried a crop for at least a year, and was carpeted by a dense sward of flowering fumitory plants, noticeably larger and more vigorous than our own *F. officinalis* but also richly coloured. I wondered what they were, and with the new owner's permission took and pressed a plant, and sent it off to the Royal Botanic Garden Edinburgh. It was early days in my attempts to recognise the members of this family, and I am afraid that in my ignorance I supposed it was a specimen of *F. purpurea* that I was sending. Not so, I was told; but what the plant might actually be was less clear. Various possibilities were suggested, by amongst others the BSBI referee Dr. Daker; and Heather McHaffie tried to germinate seed and so provide fresh material. But the attempt failed. Meanwhile our neighbour had weeded her vegetable patch and taken it into use, so that by spring 2007 no fumitory plants were left – or so I thought. But she and I managed to locate one remaining plant, which she allowed me to remove. I potted it up, and when it was in flower and beginning to produce fruit I took it up to RBGE for safe keeping. Fresh material from this was sent to Tim Rich at the National Museum of Wales; and he has determined it as *F. reuteri*, a species new not only to VC 101 but to Scotland as well.

Heather's various crib sheets for identifying the Scottish members of the genus included such helpful data as average numbers of flowers per raceme, relative lengths of peduncle and raceme, and relative shapes and sizes of sepals and bracts, for each species. I now realise that I had an ideal opportunity two years ago, when our neighbour's colony first came to light, to accumulate data of this sort for the species in question. Since *F. reuteri* as a growing plant must presumably be unknown to the great majority of botanists in the United Kingdom, this might have been a valuable contribution to the general fund of published knowledge of the genus. But at the time when the colony was at its best, and for a long time thereafter, the identity of the plant was unclear – one of the likeliest suggestions was indeed that it was simply a form of *F. muralis* – and it did not occur to me that studying and recording details of that sort was what I

should be doing. What I do remember doing at the time was examining a number of the sepals on different plants, and being struck by their smooth and regular outline, a feature well shown in Dr Daker's series of sepal silhouettes reproduced in Plant Crib '98.

I hope this short and amateurish survey of the fumitories in our home territory of Kintyre may encourage others elsewhere to look critically at the species in their area. They might, like us, be surprised by what they find.

I should like to thank Douglas McKean and Heather McHaffie at the Royal Botanic Garden Edinburgh for their help and encouragement to our Botany Group generally, and in particular to acknowledge my debt to Heather for her skill in demystifying what had to me been hitherto a daunting, not to say impenetrable genus. Tim Rich has been similarly supportive, and his determination of *F. reuteri* was of course crucial to the story I have tried to tell here; and to him likewise I extend my thanks.

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Stop press

I have just been informed that there is now doubt as to the identity of the *F. reuteri* referred to in the above article. More anon.

The Year of the *Calagramostis*

J MUSCOTT

It all began in July when the Edinburgh Natural History Society had an evening meeting to an interesting roadside verge near Cockmuir in VC 83. Nearby is a marsh, an SSSI, which looked interesting and I couldn't resist getting over the fence for a quick look around. I returned with a specimen of an interesting tall grass scattered among the other marsh vegetation. It looked like a *Calama-*

grostis, a Small-reed, but not the common species, so I sent it to Douglas McKean at the Royal Botanic Garden Edinburgh. He eventually identified it as a real rarity *Calamagrostis x gracilescens* (*C. canescens* x *C. stricta*), an identification which has recently been confirmed.

However this was not the end. In mid-August a friend and I were doing a bit of recording in my own vice-county (VC 84) between Blackness and Bo'ness when we found some more *Calamagrostis* at a couple of new sites near Carriden. It was 'only' *Calamagrostis epigejos* (Wood Small-reed), the common one, but by no means common in the Lothians, though I did have a record for the other side of Bo'ness.

A couple of days later I was out with a recording group organised by the Lothians Wildlife Information Centre at a well-known site - Aberlady Bay. It was wet when we set out, and though it dried up later, I was fully kitted out with waterproofs and wellies, so was not deterred from struggling through some of the tall marsh vegetation off the beaten track. Which is how I came upon another nice patch of *Calamagrostis epigejos*, previously unrecorded, and this time in VC 82. (It seemed only fair - one new record for each of the Lothian VCs.)

It seems extraordinary that such a conspicuous grass should have gone unnoticed in such a well-botanised area. But I have to admit the first time I encountered it I mis-identified it as Reed Canary-grass (*Phalaris arundinacea*) - which is doing it an injustice, it's such a beautiful grass!



Calamagrostis epigejos
(leaves hairless)



Calamagrostis x gracilescens
(leaves with long & very short hairs)

Indian Summer

J MUSCOTT

On sunny summer days I often get itchy feet, and head for some part of VC 84 (my 'patch') which hasn't been botanised for a bit. Given the weather in 2007, my feet didn't itch much until quite late in the year, though I did pay a visit to Pepper Wood in April where I rediscovered a Solomon's-seal, and had it properly identified as *Polygonatum odoratum* (Angular Solomon's-seal).

It wasn't until August that fine weather got me out to West Lothian on a more regular basis. One advantage of botanising in August and September, particularly after a frost-free spring, is the presence of fruits on trees and hedges - so I discovered a pear tree in a hedge, plenty of apples, and various plum species not previously recorded. It was in August that I discovered a couple of new sites for Wood Small-reed (*Calamagrostis epigejos*) mentioned above, and a small forest of Tomato plants (*Lycopersicon esculentum*) in the sandy foreshore near Blackness. *Phacelia tanacetifolia* turned up in a rough area near Dalmeny along with Broad Bean (*Vicia faba*). (It's been grown as a crop in nearby fields for the last two years, and makes a welcome contrast to the greens and yellows of other crops.)

I got several new records of Reflexed Saltmarsh-grass (*Puccinellia distans*) on roadside verges usually with Lesser Sea-spurrey (*Spergularia marina*). There's probably more of it around; but unlike Danish Scurvygrass (*Cochlearia danica*) it's not easily identified from a passing car, and peering at vegetation on the edge of a busy road with traffic thundering past is not a lot of fun.

The very best finds came quite late however. At the end of September I explored a marshy streamside near Uphall Station and was amazed to find large quantities of Common Loosestrife (*Lysimachia vulgaris*) last recorded elsewhere for the VC in 1934. I had never seen it growing in such profusion before, and suspect it was introduced.

The fine weather continued into the first part of November when I had two very exciting finds - a single plant of Prickly Sedge (*Carex muricata* ssp *lamprocarpa*) in a rough field south of Port Edgar, and a good colony of Pennyroyal (*Mentha pulegium*) nearby. Like the *Lysimachia* the *Carex* was last recorded in Isa Martin's Field Club Flora of the Lothians (1934), but the site mentioned is nearby South Queensferry, so the *Carex* could have been around all the time. The *Mentha* is new to VC 84 however. It was growing in an area which looked as if it had been prepared for development some years ago, and then abandoned. The drier part had been colonised by Russell Lupin (*Lupinus x regalis*), while the Pennyroyal was growing in a damp rushy area with Greater Birdsfoot Trefoil (*Lotus pedunculatus*) - both plants still in flower!

The year was nicely rounded off by the discovery of a fine patch of Stinking Iris (*Iris foetidissima*) in a little patch of woodland at the end of a track near Abercom. The capsules were just opening up to reveal the bright orange fruit, which is responsible for its much more attractive alternative name - the Roast Beef Plant.



PENNYROYAL
Mentha pulegium



YELLOW LOOSETRIFE
Lysimachia vulgaris

sepals with
orange borders

Differentiation and diversity in the species complex *Cochlearia officinalis* s.l. in Britain

ESTELLE GILL

The genus *Cochlearia* is taxonomically a complex genus with a circumpolar distribution. In common with many other post-glacial colonisers it exhibits complex patterns of morphological and ecological variation. The patterns of differentiation in *Cochlearia* were studied to gain insight into the processes that have driven morphological and ecological diversification in the group. The six putative taxa in the *Cochlearia officinalis* s.l. were considered in this study: *C. officinalis* s.s., *C. officinalis* subsp. *scotica*, *C. pyrenaica* subsp. *pyrenaica*, *C. pyrenaica* subsp. *alpina*, *C. atlantica* and *C. micacea*, with particular attention to the putative endemic taxa *C. micacea*, *C. officinalis* subsp. *scotica* and *C. atlantica*.

Among the questions posed in the overall study there were:

- 1) Specifically, do the three coastal taxa *C. officinalis* s.s., *C. officinalis* subsp. *scotica* and *C. atlantica* correspond to real genetic or morphological groups?
- 2) Do populations from the broad habitat types, coast and mountain constitute two separate genetic groupings or have the two broad types arisen many times in response to a coastal or montane environment?

The samples were screened for variation in AFLP fragments, morphological characters and chloroplast haplotypes. This is the first study focused on the British *Cochlearia* to use the amplified fragment length polymorphism (AFLP) technique. Variation in some quantitative morphological characters was significantly different between taxon groups. The morphological characters combined did not distinguish taxonomic groups. The AFLP variation did not vary significantly between taxonomic groups, ploidy levels, habitats or geographical regions. The morphological and ecological diversity present among populations of *Cochlearia officinalis* s.l. in Britain is most likely to result from local ecotypic differentiation. The variation in *Cochlearia officinalis* s.l. could not be divided satisfactorily into species. Described endemic species are not independent lineages compared with the overall variation in the species complex.

Corbie Den, Kincardineshire

DAVID WELCH

The Corbie Den of Kingcausie has long attracted botanists due to its very diverse flora. Through the den runs the Crynoch Burn, which flows north to join the river Dee at a point five miles west of Aberdeen.

A main feature of the den is a waterfall, the Linn. This lies at the head of a rocky gorge just 400 m from the Dee, but the den runs a further mile south and gradually broadens out into a wide valley. Some of this ground remained moorland up to the 1970s, but the main den and its surrounds had been planted with conifers by Victorian times.

The botanical history of the Corbie Den begins with David Skene, the Aberdeen doctor and polymath. From his manuscripts, kept in the Aberdeen University Special Collections, we know he saw Herb Paris (*Paris quadrifolia*) there in 1767. Other Aberdeen botanists reporting species occurrences included Professor James Beattie in the 1790s, Professor George Dickie (in his 1860 flora) and

Professor James Trail (recorded in the Memorial Flora of 1923, printed after his death but containing his text).

The best habitats of the den seem to have been its deciduous woodland and the unploughed grasslands and moorlands at its south end. The underlying rocks are ancient crystalline schists, which outcrop mainly near the waterfall; from the species list there is some calcareous influence, but geological maps only differentiate limestones some miles west up the Dee valley.

Several species local in the lowlands of NE Scotland are now gone from the den including Goldilocks (*Ranunculus auricomus*), Melancholy Thistle (*Cirsium heterophyllum*) and Wood Melick (*Melica nutans*); for these Dickie did not record precise locations, but he did specify the upper end of the den for Alpine Bistort (*Persicaria vivipara*), Frog Orchid (*Coeloglossum viride*), Moonwort (*Botrychium lunaria*), and Small White Orchid (*Pseudorchis albida*), also not seen recently.

However the present flora in the lower section of the den is markedly rich compared to most coniferous plantations in the area. This has been helped not only by the linn and its rocky gorge but by an overhead power line, as trees are kept clear of the area below. Several marshy patches lie along or near the power line, some with dense stands of Pendulous Sedge (*Carex pendula*), and others with Golden Saxifrage (both *Chrysosplenium* species), Marsh Hawk's-beard (*Crepis paludosa*), Remote Sedge (*Carex remota*) and Smooth-stalked Sedge (*Carex laevigata*).

The most notable plant growing near the power line is the Herb Paris. There are now two patches of this attractive spring flower on moist soils close to the east edge of the plantation, a situation that allows some light penetration. The nearest present occurrences of the species are 40 miles to the north-west in base-rich scrub near Keith, hence a steady succession of Aberdeen botanists have come to Kingcausie to pay their respects.

Other species growing near the stream either above or below the linn are Upland Enchanter's Nightshade (*Circaea intermedia*), Hard Shield-fern (*Polystichum aculeatum*), Oak Fern (*Gymnocarpium dryopteris*) and Sanicle (*Sanicula europaea*). By the burn upstream of a road bridge are several patches of Masterwort (*Peucedanum ostruthium*), and further on there is a small piece of grazed moorland with Heath Spotted Orchid (*Dactylorhiza maculata*), Lousewort (*Pedicularis sylvatica*) and a variety of sedges (*Carex* spp.).

Currently, plans are advanced for a new dual-carriageway road, the Aberdeen Western Bypass, to pass close to the Corbie Den. The road planners have needed to avoid houses as far as possible, and in particular the fine mansion house of the Kingcausie estate which lies just 300 m to the east. So to keep the road a tolerable distance from Kingcausie House it has to pass close to the *Paris* stands, and their future is very dependent on the elevation of the new road at this point; I have been assured that the road will be at current ground level here, and drainage into the Corbie Den plantation will not be disrupted.

Let's hope so.

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Scottish Brambles in the 20th Century: an informal summary

GH BALLANTYNE

The last decade of the 19th century was a promising one for those in pursuit of British brambles. The confusion of the Babington era was passing and there were several workers intent in trying to make some sense of the *Rubus fruticosus* agg., in particular W Moyle Rogers who was carrying out both field and taxonomic work. This culminated in the publication of his *Handbook of the British Rubi* in 1900, a feature of which was the list of British vice-comital distribution. In Scotland, there were a number of other active workers, among them such experienced botanists as GC Druce, EF Linton and ES Marshall who collected in particularly in Perthshire, as did F Buchanan White, so that he was able to include no fewer than 51 taxa [many spurious] in his draft of the posthumously published Flora in 1898. JWH Trail now gathered together all the available information and issued it as "Scottish Rubi" in 1902-03, with both VC lists and a complete systematic Scottish list.

Thus the dawn of the new century seemed to augur well for Scottish batology. But it was not to be - in fact field botany in Scotland as a whole went into decline, especially during and between the two world wars. The only local floras came out in the mid 1930s; two, Lees' *Clyde* area (1933) and Martin's *Lothians* (1934) were largely re-hashes of 19th century works; and the other, by Young in 1936 for my own *Fife & Kinross*, contained few observations after 1900 and ef-

fectively was an (often inaccurate) compilation of records up to that year. Regarding *Rubus*, the three authors all noted that "for many years, little attention has been given to the Brambles" and this is reflected in the hotchpotch of species listed, indicating there was still general confusion and muddle.

The second world war did not help, of course, but by this time WCR Watson was well on with his studies, the results of which were utilized by Clapham, Tutin & Warburg in the first edition of their *Flora* in 1952. This enabled them to include a sizeable section on *Rubus* including a key to sections and descriptions of 50 species; these were of avowedly the commonest brambles although only a dozen could be said to occur in Scotland. But the account was a big step forward and may have encouraged some to try their hand at identification. (Unfortunately, when Watson's *Handbook of the Rubi* appeared posthumously in 1958, it was too complicated and inaccurate to be of much help.) At the same time there were welcome signs of a resurgence in general field work, not least among the new faces representing several of the present or recently retired VCRs, some of whom began to collect specimens. By now Eric Edees had become national referee and was keen to see Scottish material. In particular, CW Muirhead of RBGE was sending him parcels from the mid-1950s onwards, followed by UK Duncan and MMcC Webster; Edees himself came north of the border several times and so was able to build up a fair picture of the Scottish position. The knowledge gained was first reflected (in part, as there was still considerable uncertainty around) in two of the floras/lists being prepared at the time, for Dumfries & Galloway and Sutherland.

By 1970 there were encouraging signs that Scottish bramble studies were going the right way. Allan Stirling, one of Scotland's finest field botanists, began to take an interest and soon became very capable, casting his net much further afield than Dunbartonshire. Archie Kenneth (Argyll), Rod Comer (Roxburgh & Selkirk), Joan Clark (various highland counties), Olga Stewart (Kirkcudbright & Lothians) and several others also began to collect and submit which meant that when the various checklists or floras appeared, most were able to use modern names (Moray, Nairn & Easternness being the first), although the problem of matching most older nomenclature remained (and still does). Consulting Watson's book made things worse for he had included many non-applicable continental names and although some of his descriptions were fine, his keys were not, as I found when I first attempted to use it in 1962. I could make very little of it and it was not until I'd begun working in Edinburgh and was able to visit RBGE regularly and was helped by Win Muirhead that I could begin to identify a few of the common species. From 1968 I sent Fife material to Edees and so gradually began to work up some knowledge.

It was at this period that Alan Newton who, as he put it, had served his 'batalogical apprenticeship' with Eric Edees during the 1960s, began visits to Scotland. In 1978 he ran a short course at Kindrogan Field Centre, after which I was hooked (sometimes literally), followed by another in 1984. By this time he and Edees had compiled their monograph on British Brambles and it was published in 1988. This was a great step forward, as it enabled a clear picture of what was likely to be found in each county and brought out the differences between regions, especially east and west. It stimulated some VCRs to expand and bring their records up to date, including David Welch (Aberdeenshire & Kincardineshire) and Tony Church (Arran).

Another person who helped to elucidate the Scottish bramble flora did so behind the scenes. Richard Pankhurst joined the British Museum (Natural History) staff in 1973 and was given the task of attending to the many boxfuls of material that had been collected in the Outer Isles by Miss M Campbell and AJ Willmot in the 1930/40s. This included the *Rubi* which Richard arranged to have mounted, and the operation interested him enough to draw up a computer key to all Scottish species as part of his 'Pankey' series. He sent me the 'polyclave', a pack of small cards with punched holes, of which I could make absolutely nothing - but when he adapted it to produce a conventional dichotomous printed key, it was a different story! From 1980 I made annual visits to a different mainland VC each summer and used it frequently, as did others. These trips enabled me to obtain a reasonably good picture of what each VC has to offer, while it also revealed over 20 species that had not been recorded in Scotland previously. Following earlier visits to the Outer Hebrides (including by Alan Newton) Richard went on to issue a flora in 1991, which revealed a (comparatively) large number of species for a northern county and of course included a key.

(My thanks to RP for help with this paragraph.)

As well as field work and naming pressed specimens, Alan Newton went through a number of Scottish herbaria, notably RBGE, and clarified many old names and determined many sheets, so far as was possible. Not a few specimens were either too far gone or poorly collected to be determined but in the process some new county records were revealed. DE Alien also looked through the Edinburgh sheets and has paid visits to Scotland. All this work went toward enhancing the Scottish maps in the Bramble Atlas of 2004 (of records up to the end of 2000), so that, as was the case one hundred years or so earlier, the prospects for bramble study in Scotland during the 21st century look to be favourable. Let's hope that will be the case this time.

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BSS Alpine Field Meeting

Saturday 28th June 2008

Creag na Caillich, Mid-Perthshire (VC 88)

Leader: John Holland

This year's BSS alpine field meeting is to Creag na Caillich (NN 5637) at the south western end of the Tarmachan range near Killin. BSBI members are very welcome to participate. The cliffs on Creag na Caillich have a rich alpine flora. Meet at the Ben Lawers Visitor Centre car park (NN 608379) at 10:00am. Please contact John Holland for details and to confirm a place, tel 01567 820509 (evening), e-mail john.holland@sac.ac.uk

Field Project on Community Woodlands in Scotland (2006 – 2010)

Outline and Aims

This project is being organised by the Botanical Society of Scotland (BSS) and carried out in collaboration with the Community Woodlands Association (CWA). Any community woodland in Scotland run by a management group which is a member of the CWA is eligible for inclusion in the project. A map of

member groups can be found on the CWA website (www.communitywoods.org).

The aims of the project are as follows:

- to record plant diversity in community woodlands in Scotland;
- to quantify the structure of each site (abundance and age-class distribution of woody species);
- to interest woodland groups in monitoring their woodlands over time;
- to create a current and historical database to assist future management and conservation strategies;
- to publish the results for popular and scientific interest.

The survey technique has been designed by the BSS and instructions and recording sheets are now downloadable from the BSS website (www.botsocscot.org.uk). Anyone who does not have access to the internet can apply to us for hard copy to be sent to them. Once the initial survey has been completed it is hoped that the woodland management groups will continue monitoring at intervals thereafter. The structural analysis (i.e. assessment of abundance and age-class distribution of woody species) may only need to be repeated at approximately 10-year intervals (unless felling and re-planting is undertaken, or a natural catastrophe occurs). General recording of ground flora species, however, will require frequent repeats (i.e. seasonally and annually). By this means a detailed database can be built up to assist future management and conservation strategies. Woodlands with similar structures or management histories may benefit from the sharing of experiences between management groups.

Although this project focuses primarily on vascular plant species it is hoped that, if expertise is available to make identifications, records of other plant, fungal and animal groups will be gathered to obtain a picture of the overall biodiversity of each woodland.

Plans for 2008

In 2008 the project will be run from the BSS website rather than as a series of fixed field meetings. This will enable botanists and CWA members to choose a convenient time and place for a woodland visit. Before embarking on a survey, please check that the woodland management group is happy for the woodland to be included in the project. The management group may have a useful map of the site and they may already have divided the site into different zones for management purposes. In this case it would be helpful to keep to the same subdivisions

for the survey. As mentioned above (under 'Outline and aims'), instructions and recording sheets can be printed out from the BSS website and taken into the field. If any further help or advice is required, please let us know (e-mail contact preferred). Please send completed recording sheets to Barbra Harvie, as requested on the sheets.

If members of the BSBI think this project might interest them and they would like to undertake fieldwork we would be very grateful for their help. Many thanks for any time they feel able to give.

Barbra Harvie, Edinburgh
(tel.: 0131-650 7211; e-mail: barbra.harvie@ed.ac.uk)
Barbara Sumner, Midlothian
(tel.: 01968-679550; e-mail: b.sumner@btinternet.com)

British Pteridological Society Scotland Meetings Programme 2008 Everyone interested welcome!

Saturday 22 March Glasgow Botanic Garden.
Newly restored Kibble Palace fernery and filmy fern house

Alastair Wardlaw's Garden, Bearsden.

Saturday 28 June Perthshire.
Gymnocarpium robertianum (one of only two known sites in Scotland).
The Birks of Aberfeldy – a beautiful ferny glen.

Weekend 26&27 July BPS National Meeting, Dumfries & Galloway.
Wide range of ferns (including some rarities, such as *Thelypteris palustris*) in a relatively small area near the Solway Coast.

Weekend 30&31 Aug Attadale, Strathcarron, Wester Ross.
Practical identification of male ferns (especially *Dryopteris affinis* agg.) led by Dr James Merryweather. Superb gardens at Attadale with fernery. *Polystichum lonchitis* in the wild nearby.

Saturday 13 September Beinn an Dothaidh. *Woodsia alpina* monitoring
Two sites new to us. Hill walking required but no rivers to cross this year.

Saturday 4 October Linn Botanic Garden, Cove, Argyllshire.

We have a special invitation from Jamie Taggart to view his magnificent tree ferns and the other delights of this gem of a garden.

BSBI members are very welcome. Anyone wishing to join us at any of these outings please contact the under signed well ahead of the meeting date.
Frank McGavigan, 12 Glenbank Avenue, Lenzie, Glasgow G66 5AA
(0141 776 1019). frank@mcgavigan2.demon.co.uk

Scottish Officer News

Opportunities in which to get involved

Occasionally I get requests from members keen to get involved in the field. Well, in addition to our usual field meeting programme, we have a variety of exciting projects on offer this year – including Site Condition Monitoring, Atlas Updating and helping Vice-county Recorders with the Threatened Plants Project. The latter is described in a subsequent article, but here are brief details of the others:

Site Condition Monitoring

The BSBI continues to make a significant contribution to Site Condition Monitoring. It is 'lead' volunteers who arrange the fieldwork and do the report writing, but we need field volunteers to help them with fieldwork. By the time you read this we should have just had a one day workshop for the lead volunteers at Battleby. This year we plan to survey the following SSSIs: Ardmeaneach (VC 103), Ben Lui (VC 88), Bennane Head (VC 75), Glenstrathfarrar (VC 96), Eigg-Cleadale (VC 104), Endrick Mouth & Islands (VC 99), Hill of Towanreef (VC 93), Tulach Hill (VC 88) and Whitlaw Mosses (VC 80). If you would like to get involved in this valuable work to help conserve our rarest plant populations, please get in touch with me, Jim McIntosh at the address below.

Atlas Updating Fieldwork

The Maps Scheme pages on the BSBI website update and correct similar maps which appeared in the *New Atlas*, and have a new date class 2000-2009. Records entered into the MapMate system are used to update these maps every fortnight. So it is right up to date. However there are only two years left in the current date class and we are asking Vice-county Recorders to make a concerted effort to record in all those hectads without records in the current date class.

This is where you could help - get in touch with your recorder and ask how. If you are confident enough they might ask you to take on hectads by yourself, or you might prefer to help others with the fieldwork.

Scottish Officer

The current funding arrangements for the Scottish Officer Project expire in October 2008. One of the most important tasks this spring has been preparing a grant application for a further term of funding from SNH. Currently SNH are kindly supporting 50% of the project costs, and we hope they will continue to do that for a further three years. The application was submitted in early April, and we expect to hear the outcome shortly.

Computerisation Project

Work continues apace to capture Scottish Vice-county Recorders paper records electronically, and make them more widely available to the BSBI, BRC Vascular Plant DataBase, the NBNGateway and to the Vice-county Recorders themselves, of course! This winter contractors have been working on datasets from Selkirk (VC 79), Midlothian, (VC 83), Kincardine (VC 91), Moray (VC 95), Dunbarton (VC 99) and Mid Ebudes (VC 03).

Similarly the BSBI has also contracted Lothian Wildlife Information Centre to 'mobilise' the data which underlies the *Flora of the Lothians*. Another one-off project involves mobilising a 0.25 million record dataset collected by SNH from their Tayside & Clacks area files and reports. Having resolved a 'site centroid' grid reference problem, that dataset is now with BRC undergoing technical checks before being disseminated further to the NBNGateway, etc. Novelty, both datasets will be made available to Vice-county Recorders using MapMate.

Supporting Vice-county Recorders

I have been doing a lot of work with Scottish Vice-county Recorders, to meet them individually and find out what they are currently involved with and how I can help. Over the past year I've met a further twelve VCRs leaving a similar number yet to be visited during the forthcoming year. One meeting held in January with Gordon Rothero and Carl Farmer, was particularly productive - resulting in the appointment as Carl as a joint recorder for Argyll, VC 98, much to the relief of Gordon!

Scottish BSBI webpages

The Scottish BSBI webpages include Scottish BSBI news, details of Scottish field and indoor meetings, abstracts of Exhibits from the Scottish Annual Meeting and a Scottish Officer's page. Check them out! Type www.bsbiScotland.org.uk If you spot a news item or report of particular interest to Scottish botanists in the media, please send details to Jane Squirrell so that she can report it on the website. She would be also pleased to receive any field meeting reports with photographs. Jane can be contacted at RBGE, 20A Inverleith Row, Edinburgh EH3 5LR or by e-mail j.squirrell@rbge.ac.uk.

Scottish Annual Meeting 2008 in Edinburgh

The 2008 Scottish Annual Meeting will be held in the Royal Botanic Garden in Edinburgh on Saturday 1 November. We are planning to continue with the same format with minor tweaks to allow more time to see exhibits and chat. Put the date in your diary now!

Jim McIntosh, BSBI Scottish Officer, c/o Royal Botanic Garden, Inverleith Row, Edinburgh, EH3 5LR; Tel: 0131 2482894 or 0791 7152580; j.mcintosh@rbge.ac.uk

BSBI Threatened Plants Pilot Project in Scotland

Background

For many years the word 'threatened' was synonymous with 'rare'. Species occurring in fewer than 100 hectads were the focus of conservation work - the Nationally Rare and Nationally Scarce species. More recently the term 'threatened' has been refined to include any species, no matter how common, that has suffered significant declines. Consequently, the new *British Red List* (Cheffings & Farrell, 2005) includes many widespread species that have undergone dramatic declines (e.g. *Scleranthus annuus*) but not, for the first time, national rarities whose populations appear stable (e.g. *Carex chordeorrhiza*). We know very little about many of the former group of species and urgently require more information on their ecology, distribution and changing status.

Proposed Survey

In 2008 we are proposing surveys of ten widespread but declining species in the UK. Of these, *Astragalus danicus*, *Gentianella campestris*, *Pyrola media* and

Scleranthus annuus are reasonably widespread in Scotland whilst *Blysmus compressus*, *Crepis mollis*, *Monotropa hypopitys* and *Stellaria palustris* are much more local. Two others either don't occur in Scotland (*Ophrys insectifera*) or are introductions (*Campanula patula*).

We expect that the trends identified for these species will help us understand the nature and scale of recent environmental changes more generally – such as habitat loss and fragmentation, eutrophication and climate change.

The main focus of the project in Scotland will be *Pyrola media* (Intermediate Wintergreen). Work has already begun on this species which is a priority species in Scotland as part of SNH's five year *Scottish Species Action Framework* project. As a desk exercise we have collected existing records from a wide variety of internal and external sources, including Scottish Natural Heritage and Royal Botanic Garden Edinburgh. From these we have removed erroneous and duplicate records and then fed back the remaining records to VCRs asking them for further corrections or additions. Similar work is underway for the other species.

Fieldwork – Volunteers required!

As well as checking records Vice-county Recorders will be asked to visit a small sample of pre-selected populations of all these species within their own VC in 2008. We are keen to survey edge-of-range populations, under-recorded areas or sites where status of the species is uncertain in the selection. We are even interested in old sites and the reasons why the plant has disappeared.

We are currently selecting the 'sample populations' for detailed survey and we envisage no more than 10 (in total) per vice-county. It would be great, however, if we could visit more so there is plenty scope for members to get involved and help their hard-pressed Scottish Vice-county Recorders!

The work will be really interesting and help us understand the ecology of the species better as well as the causes of recent declines. It will involve re-finding the population and recording its size, extent, grid reference (GPS) and habitat details. If recorders wish they might also like to list associated species, which we will use to define the ecological characteristics of the habitat, estimate the proportion reproducing and note any evidence of damage, threats, management and habitat condition. Importantly we will also be asking why the plant has disappeared on sites where it was known to occur.

Results

The results will be analysed over the winter, and published next spring as 'status reports' on the BSBI website. If successful we hope to extend this pilot to a larger suite of species over the next 5 years culminating in a book of species accounts around 2013.

Anyone who would like to get involved in this fascinating project should get in touch with the local Vice-county Recorder, who will be happy to hear from you.

Jim McIntosh, BSBI Scottish Officer
& Kevin Walker, Head of Research & Development

Plantlife Rare Plant Site Monitoring

Plantlife runs a volunteer surveyor programme, called *Flora Guardians*, which monitors populations of priority conservation species on an annual basis. These species are all associated with key conservation habitats in Scotland and include *Pyrola media* and *Moneses uniflora* in Caledonian pinewood, *Cephalanthera longifolia* and *Vicia orobus* in Atlantic woodland, *Arctostaphylos alpinus* and *Pseudorchis albida* in montane Atlantic heath and *Gentianella campestris* and *Primula scotica* in coastal pasture. A comprehensive list is available on request, and populations of any of the species growing outwith the specified habitat can also be monitored.

We are keen to bring botanical recorders in local areas together, so if BSBI members or vice-county recorders are interested in becoming involved, perhaps by recommending sites for monitoring or taking part in the monitoring, this would be much appreciated. We would particularly like to create opportunities for BSBI volunteers to meet the Plantlife *Flora Guardian* surveyor on site to help locate the population or just to find out more about what Plantlife monitoring involves.

The data collected includes population size of the rare plant, the proportion of plants in specified growth stages and information on nearby habitat management as well as any threats to the rare plant. By revisiting the site annually *Flora Guardians* efforts provide us with an early warning system for any adverse changes in habitat quality and species quantity, and the opportunity to work with land managers to maintain or improve the health of the population. Data will also be entered onto the National Biodiversity Network and can be used to support our conservation policy work and general management advice.

Plantlife Scotland Walks 2008

The walks will be led by local staff who will explore the general interest of the site, but with a particular emphasis on plants. BSBI members will be very welcome to attend.

Saturday 7th June, 10:30-12:30, Foveran SSSI, near Balmedie, Aberdeenshire.

Guided walk at Foveran Links SSSI, near Menie Estate, which has been in the news over the last year. The walk, led by local SNH officers, will explore this valuable coastal dune site and its wild plants.

Sunday 29th June, 11am-1pm, Kittochside, National Museum of Rural Life, East Kilbride

Guided walk around the stunning spring meadows, filled with orchids and rich in other wildflowers having never been intensively managed. There will also be an opportunity to visit the museum. Free to NTS members. £5.00/£4.00 concession, a group discount may apply.

Sunday 20th July, 11am-1pm, Scottish Crop Research Institute, Invergowrie, nr Dundee.

Guided walk around the new Living Field study centre, research garden and farm, providing an insight into current research on the plants and associated biodiversity of farmland systems.

Saturday 23rd August, 11am-1pm, Kilmartin, Argyll

Guided walk in this atmospheric and beautiful part of Argyll. Details to be confirmed but the walk may take in Tainish, Moine Mhor, Dunadd Fort and Crinan estuary areas.

Sunday 21st September, RBGE Dawyck, Stobo, nr Peebles

Fungal foray to explore the fungi interest at this RBGE garden in the Borders, which features the Heron Wood reserve for lower plants and fungi as well as a Scottish Rare Plant Trail.

Sunday 5th October, Culbin Forest, nr Nairn

Fungal foray in this fascinating coastal pine plantation. Stretching from Nairn to Findhorn, Culbin Forest is home to many coastal fungi and lichen species as well as numerous specialist pinewood herbs. The Plantlife *Flowers of the Forest* trail can also be followed here.

More events will be arranged later on in the year – keep an eye on our website or

contact us for further information.

For further information and to book contact Su Cooper, Plantlife Scotland Volunteers Co-ordinator. Tel: 01786 479382, e-mail: suzanne.cooper@plantlife.org.uk

Book Review:-

Wild Flowers of Coll and Tiree, 2008

£7.99

Authors; John Bowler, Emma Grant, Charlie Self & Simon Wellock

Cinquefoil Publishing, Isle of Coll. 190 pages. ISBN 978 0 9558 202 0 5

Copies available from– Emma Grant, Drimcruy, Isle of Coll, Argyll PA78 6TB

This pocket book complements the *Flora of Tiree, Gunna & Coll* (Pearman & Preston 2000). It is essentially a photographic guide to approximately 150 of the commoner and more obvious flowering plants of Coll & Tiree, which although geographically very close, have different habitats and species.

A brief natural history and descriptions of the habitats are given. Two floristic walks to some of the more attractive areas are described.

The main part of the book is divided into six sections based on flower colour. The Common, Latin and Gaelic names are provided. In addition to the basic descriptions, interesting facts and some island stories give some 'local colour'. Many of the species included occur all along the west coast of Scotland, so that the book is relevant when visiting many other places.

This has been a collaborative project involving many of the island folk, with contributions by visitors (including the present BSBI Recorder).

I hope that you all enjoy reading and-using it.

Lynne Farrell (BSBI VCR Mid Ebudes)

Space Filler

The following are some examples of misplaced participles, etc that I have received over the years.

...invasion of roads salted in winter by maritime plants.

For several years I had stood on the shore at Cromarty and longed to catch the smallest car ferry in Scotland.

Please send to Allan Stirling with whom I shall be staying in the enclosed envelope.

... as mentioned by Barbara as being only a few hundred yards from her house— i.e. the Ninewells Tip.

... one of several lochs in Dumfries and Galloway, one of which was later discovered to be *Hydrilla*.

And I once said at a meeting that Broad-leaved Helleborine was so common in Glasgow that on one occasion I had even seen one walking down to church.

Editor