BSBI 2009
Scottish Newsletter No 31

Berberis darwinii

BSBI SCOTTISH NEWSLETTER

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Editorial

In this bicentennial of the birth of Charles Darwin and the 150th anniversary of the publication of the Origin of the Species it is perhaps surprising that there is only one mention of him in the submissions for our 2009 issue. However, I do appreciate that most of his work was not particularly in relation to Botany.
With regard to associations with Scotland, at the age of sixteen he enrolled at the University of Edinburgh to study medicine, but did not complete the course. At Edinburgh he was elected a member of the Plinian Society– a student natural history society and in 1827 made a presentation to it on two observations of seashore animals (Ayden 2008). The University of Edinburgh marked its association with him by naming one of its biological buildings the Darwin Building and by erecting a plaque at the Royal Museum in 2002 to mark the site of his student lodgings at 11 Lothian Street.
In 1838 he went on a three week geological field trip to Scotland, which he described as his "Scotch expedition", visiting Salisbury Crags, Loch Leven and Glen Roy. He described it as "the most remarkable area I ever examined" (Darwin Correspondence Project 2008). Darwin sent botanical specimens to Professor Hooker at the University of Glasgow. These were passed on to the RBGE in the late 20th century. A herbarium sheet of the fern *Adiantum cuneatum* from Cape Verde and a named after him specimen of *Berberis darwinii* are held in the Glasgow Museums. Much of this information has been abstracted from an article by McCafferty (2009) and I am indebted also to Douglas McKean.

References

Aydon, C (2008). A brief guide to Charles Darwin. Robinson, London.
Darwin Correspondence Project (2008). Accessed at; www.darwinproject.ac.uk
McCafferty, DJ (2009). Darwin in Scotland. *Glasgow Naturalist* 25, 2, 1-3.

The front cover illustration of Darwin's Barberry was executed for us by Elspeth Lindsay and based on a specimen collected from the wild in Lanarkshire.

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. I like to receive items for the Newsletter by the end of February. Submissions in the past have been mainly on CD, which is still very acceptable, but now-a-days it is more usual to send such by E-mail and one of my daughters has kindly offered to be the recipient as below:
Lorna.macpherson@ntlworld.com

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

Chairman's report at the BSBI Scottish Annual Meeting of 1 Nov 2008

CHRIS MILES

The Scottish Committee held 3 meetings over the last year. As well as the usual business of organising the field meetings and the annual meeting the committee discussed and supported action on two developments both likely to lead to undesirable impacts on Scottish plants, the Menie golf course proposals and the emergence of *Phytophthora sp.* in the West of Scotland.

David Welch has written about the inquiry into the Trump golf development in BSBI news, the outcome is now awaited. David indicated to the meeting that no further indication of the likely outcome was yet apparent.

One of the benefits of having representatives from NTS and FCS on the committee is that we hear directly about relevant work. So this year Lindsay Mackinlay of NTS was able to tell us about what they are doing to tackle the outbreaks of *Phytophthora sp.* on their properties. This disease has potentially serious implications in Scotland because of the vulnerability of members of the *Ericaceae* with confirmed infection already noted in species like *Vaccinium myrtillus*. We have consequently written to Scottish Government to encourage a firm approach to control and eradication and to offer help where possible with any surveillance strategy.

There has been a good deal of change amongst VCRs this year and the committee have with Jim McIntosh's help been able to suggest replacements for nearly all these. [see also Scottish Officer News]

We thank retiring VCR James Fenton, and welcome new VCR, Duncan Donald who is taking over in VC 105 (Wester Ross).

We welcome Carl Farmer who served his apprenticeship with Stephen Bungard on Skye and has recently moved to Taynuilt and has been formally appointed joint vice-county recorder with Gordon Rothero in Main Argyll (VC 98). Carl holds the portfolio and is the point of contact for all enquiries.

We welcome Gill Smart who has been formally appointed joint recorder to help Dave Lang in Ayrshire (VC 75). Dave will continue to be the main point of contact.

We are happy to report that although Douglas McKean has retired – after 41 years from RBGE – he is still BSBI VCR for Midlothian (VC 83) – and he has

kindly agreed to continue to identify specimens sent in to him by fellow Scottish VCRs.

We have recently received Ruth Mitchell's resignation from S Aberdeen (VC 92) so a vacancy exits here.

Although we currently have a near full compliment in the Scottish VCR network, a number of VCRs have indicated that they wish to retire in the next few years, whilst others have said they would like help in their vice-counties (i.e. a joint recorder). If you think you have what it takes to be a recorder or joint recorder, and are interested or would like more information about what's involved could you please let me (or Jim McIntosh) know.

Gwynn Ellis, the membership secretary will send VCRs an updated local members list in January – which they might like to use to ask local members for help with recording tasks (like Threatened Plant Project work for example).

Likewise local members might like to get in touch with their VCR to offer their assistance – the yearbook now contains e-mail addresses for most VCRs - to facilitate this sort of communication.

I should record that retiring from the committee this year are Ian Green, Heather McHaffie, Jeff Waddell and Edna Stewart. I would like to thank them on your behalf for their contribution to the running of the business of the Society in Scotland.

BSBI/BSS Scottish Annual Meeting, 2008

CHRIS JEFFREE & BARBRA HARVIE

Once again this year, the meeting was held at the Royal Botanic Garden Edinburgh (RBGE) and was very well attended, with apparently many more than the 100 listed delegates, the audience comfortably filling the RBGE lecture theatre. On my arrival at 9.00 a.m. the Lecture theatre and Conference room were already a hive of activity, with speakers mounting Powerpoint presentations on the computer and exhibitors setting up a crammed roomful of posters and exhibits. Summerfield Books were also in attendance with an excellent exhibition of botanical books, which was to make a dent in my wife's finances later in the day.

The proceedings were opened by **David Long, RBGE,** speaking on behalf of Mary Gibby, Head of Science, who gave an account of some of the year's goings -on at RBGE. Douglas McKean has 'retired' after 40 years of service. A

SEERAD-funded project on willows led by Pete Hollingsworth has collected seeds of *Salix lanata* for an *ex-situ* collection of montane willows, work is in progress digitising specimens from the *ex-situ* collection of the rare Catacol Whitebeam, (*Sorbus arranensis*), and a 3-year 'People for Plants' Project, led by Heather McHaffie, has begun. *Mycaenastrum corium*, a large puffball that opens with earthstar-like rays, has been discovered in Scotland by Neville Kilkenny, and is a new fungus record for Britain.

The new Scottish-based **President of the BSBI, Michael Braithwaite,** welcomed delegates, encouraged them to visit the excellent Summerfield Books exhibition and announced that there would be a guided tour of the RBGE Herbarium. He noted that Jim McIntosh's post was 4 years old today, and thanked all the supporters of the Scottish Officer project for their contributions towards the costs of the post. The BSBI Conference at Berwick upon Tweed, 9th – 10th May 2009, will be on 'Trees and Shrubs', and will focus on widespread alien species and 'new' species currently becoming fashionable for planting. One theme will be the extent to which such species naturalise and the habitats they colonise. Michael Braithwaite invited delegates to let him know if they were not getting the help they need to enjoy the flora.

Deborah Long, Conservation Officer of Plantlife Scotland, talked about the wide range of management and monitoring projects currently being undertaken by Plantlife. Twinflower (*Linnaea borealis*) is being monitored at 5 locations, and juniper at 4 sites where the value of management techniques such as scarification and cattle grazing are being investigated where vegetation is closing over too rapidly for the species to establish. Surveys of butterfly orchid sites are in progress, and a part-time post has been established to monitor lower plants and fungi, funded jointly by Plantlife, SNH, FC, SEPA, British lichen Society and British Bryological Society. Deborah introduced recent additions to the wide range of reports and leaflets being produced by Plantlife, many of which can be downloaded as pdf files from http://www.plantlife.org.uk/uk/plantlife-saving-species-publications.html. In the Reports series, the 2003 twinflower report, *The influence of past management of pinewoods on the occurrence of twinflower*, by Richard Worrell and Basil Dunlop, was published online for the first time in 2008, as was the 2007 report, *Rhododendron ponticum: Impact on lower plants and fungi communities on the west coast of Scotland*, by Deborah Long and Jill Williams. *Important Plant Areas for Algae* (2008) published jointly by Plantlife, the Natural History Museum and the British Phycological Society, identifies the most important sites in the UK for freshwater and marine algae. Also new this year is *A Vascular Plant Red Data List for Wales* by Dr Trevor Dines of Plantlife Wales, the first analysis of vascular plant flora in Wales using international

criteria. *Lichens of Atlantic Woodlands*, Guide 1: *Lichens on ash, hazel, willow, rowan and old oak* and Guide 2: *Lichens on birch, alder and oak* - are the first two publications in an exciting new series of identification guides, the first dealing with *Lobaria* and the second with lichens of the Parmelion group. Several new management guides have been produced during 2008. *Looking after Green Shield-moss (Buxbaumia viridis) and other mosses and liverworts on dead wood*, *Ecology and management of Ear-lobed Dog-lichen (Peltigera lepidophora) and other lichens of rocky river edges*, and *Scotland's rare tooth fungi: an introduction to their identification, ecology and management* aim their advice at landowners and managers. *Pond Alert! Create your own bog garden* (2008) on the other hand gives useful examples of projects involving pond creation and management which may help home-owners and gardeners with their pond projects. In *Ragwort: friend or foe?* Plantlife has collaborated with the British Horse Society and Butterfly Conservation to produce a guidance leaflet that balances conflicting issues, the plant being poisonous to livestock and humans, but also a native plant valuable as a food plant for insects such as the cinnabar moth.

Chris Jeffree, President of the Botanical Society of Scotland, outlined the development of the Society's publications, which had begun with the *Transactions and Proceedings of the Botanical Society of Edinburgh* in 1844, eight years after the Society was instituted in 1836. The *Transactions* ran until 1991, when Council decided to rename the Society 'The Botanical Society of Scotland', and to change the name of the journal to the *Botanical Journal of Scotland*. *BJS* ran until 2006, and throughout this period, the BSS had been very well served by Edinburgh University Press, and the Society wishes to extend its grateful thanks to them. However, the *BJS* had not achieved the international status that the BSS had hoped for, and its failure to achieve a listing in the Thomson ISI Citations Index had resulted in a steady decline in the number of papers submitted. A new approach was required, and the Society therefore approached a number of publishers with experience of publishing international portfolios of journals, and signed a 10-year contract with Taylor & Francis, a member of the Routledge group, to launch *Plant Ecology & Diversity* as the new international journal and forum of the Botanical Society of Scotland for communicating results and ideas in plant science. All areas of plant biology relating to ecology, evolution and diversity are of interest, including those which explicitly deal with today's highly topical themes, such as biodiversity, conservation and global change. At the time of writing, two splendid issues of *PED* have been produced, the first concerned with the biology of tree lines, and the second a special issue on the St. Andrews symposium, organized by Richard Abbott, on the 'History, evolution and future of arctic and alpine flora'.

At the coffee break, there was an opportunity to view the excellent range of post-

ers and exhibits, including an exciting glimpse of a mock-up of the British Bryological Society's eagerly awaited *British Mosses and Liverworts: a Field Guide*.

Kevin Walker, Head of Research and Development, BSBI Plant Unit, talked of *BSBI: future projects*, notably of the BSBI Threatened Plants Project, of which more detail appears in the BSBI Autumn Newsletter (http://www.bsbi.org.uk/TPPNovember08update.pdf). A pilot group of 10 species was surveyed in 2008, including *Gentianella campestris, Scleranthus annuus, Astragalus danicus, Ophrys insectifera, Monotropa hypopitys, Blysmus compressus, Pyrola, media, Stellaria palustris, Crepis mollis and Campanula patula*. Vice-county Recorders visited 678 randomly-selected sites across the British Isles, providing thousands of new and amended records. The survey indicated that about a third of populations of these species had disappeared, although *Blysmus* was more resilient and *Campanula* and *Scleranthus* appeared to be more sensitive, having lost well over half their original sites. The BSBI intend the survey to be an ongoing project to update records of threatened species and learn more of them, and have issued a new list for the 2009 survey, *Carex ericetorum, Cephalanthera longifolia, Coeloglossum viride, Dianthus deltoids, Fallopia dumetorum, Gnaphalium sylvaticum, Groenlandia densa, Melampyrum cristatum, Oenanthe fistulosa, and Vicia orobus.* Further details can be found at http://www.bsbi.org.uk/html/tpp.html.

Jim McIntosh, BSBI Scottish Officer, talked with characteristic good humour of a year in the life of the BSBI Scottish Officer. Roughly allocating one activity per month, December had been occupied in computerisation of records and January in applying for grants for a further 3-year continuation of the Scottish Officer project, approved by the BSBI and SNH with an in-kind contribution from RBGE in the form of office facilities. February: a well-earned skiing holiday on the Matterhorn, March/April: Site Condition Monitoring (if you would like to be involved in monitoring, please get in touch with Jim), May: Educational Field Meetings such as searching for *Minuartia verna* on Arthur's seat, which may be at risk from swamping by the expanding area of gorse, June: a visit to Eigg with the Vice-county Recorders (VCRs), July: a visit to Lewis with Paul Smith and Richard Pankhurst, August: VCR field meetings which 8 VCRs survived despite the best efforts of the weather, September: Threatened Plant Project monitoring, October: Communication, the main part of the job, producing the Annual report. Jim is to be congratulated on the quality of his final annual report of the 4-year SO project, and we are pleased to report that the project has been extended for a further three years.

After a long lunch break, giving delegates time to sample the delights of Summerfield Books and the Herbarium, there followed an interesting account by **Brian and Barbara Ballinger, VC Recorders for E. Ross (VC 106)**, of the vegetative identification of wintergreens (*Pyrola* spp., *Moneses* and *Orthilia*) in Easter Ross. Some populations do not flower regularly in northern Scotland, making their recording problematical. They reported that *P. minor* was widespread in E. Ross, occurring in 21 tetrads. While there were 9 populations of *P. media*, some non-flowering, they were mostly in more upland locations and further to the west. Older records pre-2000 showed it to be present in the east of the county. *Pyrola rotundifolia* may now be extinct in E. Ross, having last been recorded in Nigg. *Orthilia secunda* has occupied 11 hectads and 21 locations since 2000, mostly in the south and east, but was present in 9 other hectads in 1970-1999. *Moneses uniflora* may now be extinct in E. Ross having last been recorded in Blackmuir wood, Strathpeffer, in 1971.
The study aimed to establish whether vegetative characters of wintergreens could be used to identify non-flowering plants. Numbers of leaf teeth, style length, petiole lengths and leaf blade lengths and widths could be useful taxonomic characters, and were measured either in flowering populations, or in plants identified by Jane Squirrell at RBGE using molecular techniques. It was found that , given sufficient samples, the number of leaf teeth could separate *P. media* (leaves usually with < 15 teeth) from *P. minor* and *P. rotundifolia* (usually with > 15 teeth). Although petiole lengths varied with light exposure, they might be useful in conjunction with blade length to distinguish *P. media* and *P. rotundifolia* (blade usually longer than petiole) from P. minor (blade usually shorter than petiole). Style length is also much longer (4-5mm) in *P. media* and *Orthilia secunda* than in *P. minor* (1-2mm). [see article on page 19].

The afternoon session was completed with an account from **Lynne Farrell, VCR for Mull (VC 103)**, of progress on the *Tetrad Flora of Mull*, some thirty years on since the *British Museum Flora of Mull* was published in 1978. Two hundred and fifty tetrads have been recorded out of a total of 337, leaving 87 to be completed. Several new records have been made, including *Dactylorhiza lapponnica*, *Cephalanthera longifolia*, *Mertensia maritima* (W. Mull and Treshnish Isles), *Anagallis minima* and *Carum verticillatum*.

The final guest lecture was at 5.00 p.m., after a pleasant break for tea, chatting and dismantling of exhibits. **David Pearman, Chris Preston and Gordon Rothero** among them presented the story of the publication of *The Flora of Rum*, which was published in May, 2008. David set the scene with a wonderful whistle-stop tour of the island with glorious images, sea, mountains, sand, sun and, incredibly, no midges! He included some photographs of our intrepid re-

corders on rather scary looking climbs and introduced us to the aptly named "Hell's corner" on the sandstone raised beaches. Chris followed with more detail of some of the sites visited, all accompanied by memorable images: the alien species concentrated around Kinloch, including many planted trees; the Kilmony dunes, fertile and basic but heavily grazed; the rest of the island, upland and acidic with large areas of *Molinia* dominated vegetation. It was not all bad news however. *Pilularia* has been successfully reintroduced to suitable basic areas. There are gullies with locally-rare species and *Sorbus rupicola* (Rock Whitebeam) growing on steep cliffs. The hillsides have calcareous central areas and there is one, 'good' mire. We were also treated to some photographs of serpentine vegetation that is very open with specialised species like *Rubus saxatilis* (Stone Bramble), *Deparia petersonii* (Japanese False-spleenwort), *Arabis petraea* (Northern Rock-cress) and *Arenaria norvegica* subsp. *norvegica* (Arctic Sandwort). In addition to plants the island boasts the largest colony of Manx shearwaters, living in burrows on grassy swards (that they keep fertilised). We were now treated to an account of the island's bryophytes by Gordon and there was a much greater diversity of these than of vascular plants; a phenomenal 460 recorded species (25% of the European bryophyte flora). Sadly we were not able see them all as we were taken on another trip round the island, habitat by habitat. The grazing on the sand dunes is just right for moss species like *Rhodobryum roseum*. In the sandstone raised beaches (Hell's corner) extreme oceanic species are a very important component in the impressive bryophyte count. We were introduced to the liverwort *Pleurozia purpurea*, a species with a disjunct global population yet large populations on the Scottish islands; *Hamatocaulis vernicosus* and other species in the mire areas that are on the European protected lists but are a bit like great-crested newts – there are a lot of them about; *Campylopus setefolius* that is only found on Rum and other west coast oceanic sites; *Sphagnum skyensi* that may be a Scottish endemic or perhaps a hybrid. Reeling from a plethora of bryophytes we were then informed that in the limestone to the north of the island there is another suite of mosses. This excellent talk by three wonderful raconteurs (to whom I apologise if I have mis-named any of the species) ended with the important information that there are still a few copies of *The Flora of Rum* left. The vote of thanks to David, Chris and Gordon and to all the other contributors to the meeting was given by Crinan Alexander of the Botanical Society of Scotland.

During the breaks from the lecture programme there had been ample time to visit the exhibits in the Conference Room. The range and variety was impressive as always and the organiser, Heather McHaffie, is to be congratulated for the fine display. The abstracts appear elsewhere in this newsletter and on the BSBI Scotland website (www.bsbiscotland.org.uk). In addition to the posters, literature,

herbarium specimens, photos. and live plant exhibits there were computer slide shows running continuously throughout the exhibition from **Paul Smith:** ***Lewis 2008: Interesting varieties and Habitats*** and **Mark Tulley:** ***Flowers of Svalbard*** photographed during a 2-day expedition. These replaced the traditional after-dinner slide shows of previous years and had the double advantage of being available for viewing to everyone who attended the meeting and leaving more time for convivial conversation and catching up with news over dinner at the end of a very pleasant day. As in previous years Douglas McKean performed his wine-waiting duties with enthusiasm and the delicious evening meal was provided by the chef and staff of the dining room at RBGE. Once again Jim McIntosh and all the helpers are to be congratulated on arranging such a smooth-running and successful event.

Acknowledgement: A version of this report first appeared in *BSS News* No. 92, March 2009. The Editor of *BSS News* thanks the authors for permission to adapt their report for submission to the *BSBI Scottish Newsletter*.

Draft Minutes of the BSBI Scottish AGM held in the Royal Botanic Garden Edinburgh on 1st November 2008

Welcome

The Chairman welcomed all to the BSBI Scottish AGM.

Apologies

Apologies were received from Catriona Murray, Pat Batty, Jeff Waddell, Morven Murray and David Hawker.

Minutes of AGM November 2007

The minutes from the 2007 AGM (published in the *Scottish Newsletter* 2008 No 30) were approved as a true record of the meeting. Proposer : Rod Corner, seconded Ian Evans.

Business arising

Lynne Farrell noted that the Charophyte Workshop that had been planned for 2008 had not occurred. Jim McIntosh reported that Nick Stewart had been approached but suitable dates for the workshop had not been found, it is hoped that a workshop will be organised in the near future. David Pearman noted that Plantlife published an excellent assessment of the best charophyte sites a few years ago.

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. The membership thanked retiring Committee Members Ian Green, Heather McHaffie, Edna Stewart and Jeff Waddell for their contributions to the Committee.

Scottish Newsletter report

Peter Macpherson reported on a feedback that he had received relating to his "space filler" in the last issue of the *Scottish Newsletter*. Isobyl la Croix asked whether that relating to 'ambulatory helleborine' might be included in an issue of the RHS journal *Orchid Review*. This duly appeared in the Editorial section of that journal! Thanks were extended to Jackie Muscott for her help with the mailing list and the newsletter's distribution. The members were informed that in addition to CD, he was now able to receive contributions to the *Scottish Newsletter* via E-mail (**Lorna.macpherson@ntlworld.com**) and that copy deadline for the next issue of the Newsletter was end of February 2009. The membership thanked the editor for his work on the *Scottish Newsletter* over the past year.

Field Meetings 2007 and 2008

In total 8 field meetings occurred in 2008, of which 5 had an educational theme. All were well attended and some, such as the educational meeting to Arthur's Seat, were over subscribed. Mark Watson thanked all the leaders, without whom, this successful programme would not have been possible. The aim of future field meetings is to visit VCs that have not been visited since 2003. Many of these gaps have now been filled for 2009. The programme for 2009 currently consists of eight meetings. As yet there are no meetings during August, but it is hoped this gap will be filled. Details of the meetings can be found on the Scottish pages of the BSBI website (**http:// www.bsbiscotland.org.uk/Excursions.htm**) and in addition will be published in the BSBI year book vistas and landscapes.

Scottish Committee Nominations

Dot Dahl, Barbara Ballinger, Luke Gaskell and Martin Robinson stand for election and Jane Squirrell re-election as Committee members. All were elected *en-bloc*. Proposed Lynne Farrell, seconded Peter Macpherson.

Arrangements for evening meal

Chris Miles informed those present that the evening meal would take place in the Conference Room at RBGE at 6.30pm. Members' slide shows would be displayed in the Lecture Theatre prior to the meal and during the exhibition in the Conference Room rather than after the Conference meal.

AOCB

Jim McIntosh informed members there would be a VCR workshop on "Rare Plant Registers: Making a Start" at Kindrogan, 3rd - 5th April 2009.

Jane Squirrell November 2008

BSBI Committee for Scotland

Composition of the Committee from November 2008 to November 2009: Chairman – Chris Miles; Vice-chairman – Lindsay Mackinlay; Secretary & Treasurer – Jane Squirrell; Field Meetings Secretary – Mark Watson; Exhibition Secretary – Alistair Godfrey; Committee Members – Jane Jones, Barbara Ballinger, Dot Dahl, Luke Gaskell and Martin Robinson.

Representing SNH – Robin Payne; Representing Plantlife – Deborah Long; Representing Botanical Society of Scotland – vacant; Representing National Trust for Scotland – Lindsay Mackinlay (dual role).
Attending – Jim McIntosh BSBI Scottish Officer.

At the AGM on 7th November 2009 Jane Jones, Lindsay Mackinlay, Mark Watson and Chris Miles will retire, all 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 2009.

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

Exhibit Abstracts

New Fife specialties George Ballantyne

The exhibit "Some East Fife Coastal Crackers!" featured photographs of Sea Pea, (*Lathyrus japonicus)*, Rock Samphire (*Crinthmum maritima*) (both new VC records), Sea Kale (*Crambe maritima*), Sea Mugwort (*Artemisia maritima*) and Sea Beet (*Beta maritima*). Also exhibited were pairs of related species, comprising "Two Leggy Legumes" Kidney Vetch (*Anthyllis vulneraria* ssp. *carpatica*)

and Tall Common Vetch (*Vicia sativa* ssp. *sativa*); "Two Long-lived Rockets" Perennial Wall Rocket (*Diplotaxis tenuifolia*) and Perennial Rocket (*Sisymbrium strictissimum*); "Rare Rushes" Compact Rush (*Juncus compressus*), a new VC record, and Baltic Rush (*Juncus balticus*); "Two Mysterious Mints" Scottish Mint (*Mentha scotica*) and another close relative in *Mentha spicata* agg.

Northern matters Barbara and Brian Ballinger
VC 106 (E. Ross)

Arctostaphylos alpinus has a very northern distribution in the UK and has been recorded in 44 E. Ross tetrads since 2000, mainly over 500 metres in altitude and in contrast to its rarity further south. *Oxytropis halleri* has diminished considerably in quantity in its 3 coastal sites in the vice-county in recent years and possible causes were discussed. New northern limits for *Salicornia dolichostachya* and *Potentilla neumanniana* (*tabernaemontani*) were reported. An unusual *Ranunculus* without petals and possibly of hybrid origin involving *R. peltatus*, was found in a lochan by Strathpeffer. Four new sites for *Polystichum lonchitis,* which is locally scarce, were described. The importance of recording other species when visiting remote sites was emphasised, using the example of moths.

Caithness Plants Ken Butler

Poa compressa was a new vice-county record found near Lybster during the BSBI Meeting in July. It was found by Slavomira Zlaka who is new to the Society. It is often found on walls further south but here was on a natural rocky bank. *Persicaria campanulata* was a new neophyte vice-county record found established in a roadside lay-by near Watten. It is not unusual to find garden surplus "planted" by the roadside. *Goodyera repens* is a second vice-county record found under planted conifers in Dunnet Forest. This was an artificially planted forest in 1960 and the nearest natural source of seed is about 60 miles away. The survey of a large area of *Gentianella campestris* on Greenland Links was exhibited; it is part of the Threatened Plants Project trial surveys. Remote areas such as Caithness, where this plant is thriving, are important because the species seems to be threatened in many other places.

Mosses new to Britain and/or Scotland, from the past year David Chamberlain, Liz Kungu David Long & Gordon Rothero

The past twelve months have proved to be particularly bryologically productive, with the addition or confirmation of four new native species to the Flora of Scotland, two of which were also new to Britain. While it is tempting to infer that some of these records may reflect climatic change, it seems more likely that all

four have in the past been simply over looked.

Plant records from Roxburgh (VC 80) and Selkirk (VC 79) Rod Corner

The following were shown from VC 79: *Viola canina x riviniana = V.* x *intersita* (Heath x Common Dog Violet) as a new VC record in the absence of *V. canina*, *Utricularia minor* (Lesser Bladderwort) from a second extant site, *Alchemilla glomerulans* (an arctic-alpine Ladies-mantle) as a fairly recent colonist of old river gravel in an hectad in which it had become extinct and *Elodea nuttallii* (Nuttall's Waterweed) as a first VC record from a "wild" habitat remote from habitation.

The following were shown from Roxburgh: *Melica nutans* (Mountain or Nodding Melick) rare in South-East Scotland and in quantity from a new site, *Carex divulsa* ssp. *leersii* (Leer's Sedge) from the edge of a forest track in a new site with stems to 1.5m tall, *Myosotis stolonifera* (Pale Forget-me-not) as a second and new extant site from an area where it was last seen 28 years ago and thought to be extinct, *Potamogeton coloratus* (Fen Pondweed) confirmed from a site from which it was known a century ago and *Cytisus striatus* (Hairy-fruited Broom) from old road-side planting and over looked for a number of years but with no sign of becoming established.

Overlooked residents of West Sutherland Pat and Ian Evans

The flora of VC 108 continues to surprise us, as do our friends. In May, Robin Noble found Moschatel (*Adoxa moschatellina*) in a dry valley behind Inchnadamph, the first record since 1894 and a new locality. In June, Sir David Dupree came across a flourishing population of Ray's Knotgrass (*Polygonum oxyspermum* ssp. *Raii*) on a sandy beach near Melness, the only known locality on the north coast. In August Dr Colin Leakey spotted a large stand of the former medicinal herb Elecampane (*Inula helenium*) on the Loch a'Mhuilinn NNR. It appears to be long-established at this site, but has never before been recorded from West Sutherland. Associated with it is Ground-ivy (*Glechoma hederacea*), a rare plant so far north, always found near human habitation; it also had medicinal uses and was used to flavour beer. David Pearman has recently drawn our attention to a 1959 record of Great Horsetail (*Equisetum telmateia*) from 1000ft up a remote area east of Loch Loyal. It escaped the Atlas and its continued presence requires confirmation, if anyone would like the challenging task for 2009.

Some recent Cumbrian records Geoffrey Halliday

The exhibit comprised specimens of the under-recorded *Sanguisorba minor*

subsp. *muricata*, *Populus nigra* subsp. *betulifolia* showing the distinctive spiral petiolar galls, a variant of *Cirsium arvense* with unarmed and wingless stems, *Lactuca serriola* - now at the end of its M6 journey near the Border, and two aliens *Chiastophyllum oppositifolium* (not listed in Clement & Foster) and *Silene fimbriata,* otherwise only known now from Islay.

Isles of Bute and Cumbrae (VC 100) Angus Hannah

Scleranthus annuus was one of the target species for this year's Threatened Plant Project. Three previously know sites on Bute, with small populations, had been checked out. In October, a very much larger population was found by accident, with more than 500 plants. All the Bute sites are on gravelly tracks in the vicinity of feeders where out-wintering cattle get silage. A location map and photos were exhibited.

Subsequent to last year's field meeting, a check-list of Cumbrae plants has been published, and copies were offered for sale. This follows the format of the author's Bute booklet, with notes on frequency, habitat and status, as well as including all species recorded on the island in the past. Cumbrae was botanised by the Victorians more thoroughly than the other Clyde islands, and several lists were published. Cumbrae has a remarkably rich flora for its size, which is the equivalent of 3 tetrads, with over 570 species recorded in the last two decades and a further hundred historically.

Plants in relation to ox-bows north of the River Kelvin P Macpherson & ELS Lindsay

To the west of the outskirts of Kirkintilloch the River Kelvin forms the boundary between the vice-counties 77 & 86 (Lanarkshire and Stirlingshire). Within one kilometer of the town there are two ox-bow pools to the north of the river, representing the original channel, before it became straightened out. For recording purposes, the area remains within Lanarkshire. A river bend returning almost upon itself is referred to as an ox-bow (an ox-bow being a collar for a yoked ox). An ox-bow pool or lake is formed when the neck is pierced and the bend cut off. In June 2008 we conducted a botanical survey, based particularly on the Lanarkshire half of the pools and the adjacent banks. A total of 105 taxa was recorded. In the easterly pool we found the dominant vegetation to be Water Horsetail (*Equisetum fluviatile*), while Reed Canary-grass (*Phalaris arundinacea*) was prolific in that to the west. In general, there is very little open water. The two species which we found of most interest were Greater Spearwort (*Ranunculus lingua*) and Tufted Loosestrife (*Lysimacia thrysiflora*). Other notables were Bogbean (*Menyanthes trifolia*), Mares-tail (*Hippuris vulgaris*) and Yellow Wa-

ter-lily (*Nuphar lutea*). Oval Sedge (*Carex ovalis)* was on the bank and Water Sedge (*Carex aquatilis*) and Bottle Sedge (*C. rostrata*) were in the water.

Botanical courses organised in collaboration with the RBGE Heather McHaffie

A range of Botanical courses and workshops are organised through the Royal Botanic Garden Edinburgh. A Practical Field Botany Course will be run in Edinburgh, at Dawyck Botanic Garden and at Kindrogan Field Centre. This 8-module certificate course covers the use of a flora with repeated practice together, the essential background to fieldwork, how to collect records and herbarium specimens when necessary, and visits to different habitats. Details on this and other short botanical courses can be obtained from http://www.rbge.org.uk/education/horticulture-botany-and-environment/botany or from the RBGE Education Department, address given below.

There will be two workshops at the RBGE in 2009. An arable workshop concentrating on the six Scottish species of *Fumaria* on June 11th and one on *Equisetum* on the 25th June with the eight species in the morning and some hybrids in the afternoon. It is all done with fresh plants which you can take away and press. There is a reduced charge for botanical society members. A booking form is available from the Education Department, Royal Botanic Garden Edinburgh, 20A Inverleith Row, Edinburgh, EH3 5LR.

At Kindrogan Field Centre there are a wide range of botanical courses, details of which can be found on http://www.field-studies-council.org/professional/2009/index.asp, including a course tutored by Heather McHaffie on Mountain Flowers and Ferns. [see also page 39]

Plants new to VC 84 (West Lothian) Jackie Muscott

In September Paul Stanley from the Isle of Wight sent me details of rare plants noted in the gravel of the overflow car park at Bo'ness Station, and this triggered a number of visits to the Bo'ness area, resulting in three plants new to VC 84 (on display):- *Epilobium tetragonum* Bo'ness Station, *Senecio inaequidens* – Bo'ness Station, *Rorippa* x *armoracioides*– rough corner SE of Bo'ness and *Brassica nigra*– west of the lagoon, Kinneil Kerse, the first record since 1934.

Paul's visit also resulted in a second site for one of the VC's threatened plants *Scleranthus annuus*. It is doing very well at the previously known site – barish patches on the Ochiltree Hills (photographs were exhibited). Another threatened plant *Gentianella campestris* was also visited at its only known site, Hound

Point. It was thought to be on the verge of extinction. In fact there were nearly 500 plants, some with as many as 100 flowers (photographs were exhibited).

Green-flowered Helleborine (*Epipactis phyllanthes*) in north Cumbria Jeremy Roberts

A colony of 30 plants of Green-flowered Helleborine (*Epipactis phyllanthes*) found in north Cumbria is new to VC 70, with the species otherwise known in Cumbria only from sand-dunes in the southwest of the county in VC 69. The nearest known sites are in fact in Northumberland (VC 67), although these are not of variety *vectensis*, to which the new colony appears referable. The plants are associated with beech, as is typical of variety *vectensis*. Some plants are very well-developed, with four plants over 50 cm tall.

***Hedera helix* an under-researched plant?** Alison Rutherford

Over the last 30 years Hugh McAllister and I have been researching the morphological differences between Common Ivy (*Hedera helix*), wild Atlantic Ivy (*H. hibernica*, *H. helix* ssp *hibernica*) and so-called Irish Ivy (*H.* cv 'Hibernica'). This has taken attention away from consideration of *H. helix*. Potted plants of the 'Pittsburgh' ivies and wild *H. helix*, were exhibited to show the morphological differences between them. The 'Pittsburgh' ivies produce axillary shoots in autumn and are increasingly found as garden escapes. A copy of the front-cover of a forthcoming booklet was also displayed. Any feedback from it will contribute to an article in *BSBI News*.

A field of Yellow Bartsia on the Kintyre Peninsula, VC 101 Ian Teesdale

A Scottish site for *Parentucellia viscosa* on the Kintyre Peninsula (VC 101) was described in the exhibit. A small quantity of *P. viscosa* had been recorded by AG Kenneth, presumably from this site, in 1971, but they were evidently overlooked by fieldworkers for the New Atlas in the 1990s. There is now a very large population at the site. Photographs of the site and *P. viscosa* were exhibited, together with a list of other plants species recorded from the site.

Some Curious Willows Leslie Tucker

Herbarium sheets and shoots with fresh leaves of Willows collected along the Tay and its tributaries were exhibited. Wind-blown seeds establish new colonies on banks of sand and gravel after exceptional spates. Such sites are very fertile

but, being liable to flooding and often inaccessible, generally considered not worth cultivating. If the seedlings survive and grow unrestricted, they produce thousands of saplings in dense thickets over 2 metres high. At about 5 years old, mature catkins and leaves facilitate *Salix* species identification. Such wild populations are far more diverse and interesting to study than the vegetatively-cloned and disease-prone plants often seen in managed environments.

At first, taller rods of *purpurea* and *viminalis* dominate; bushier *caprea, cinerea, aurita, mysinifolia, phylicifolia, repens,* and *lapponum* can be found, but compete better on drier banks.

After recognising the main species' variation, occasional binary hybrids are identifiable, including introgressive back-crosses with one or other of the parents. Eventually, a few vigorous specimens remain as diagnostic challenges, probably out-crosses with third species or another hybrid. Theories and experiments on the origins of such complex hybrids were discussed, including the only quadruple previously recorded: *S.*× *taylorii* (*purpurea x viminalis* × *caprea* × *cinerea*); and others not yet published.

Scottish Field Meetings 2009

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

May 9,10	Berwick-Upon-Tweed in conjunction with Conference & AGM	
May 17*	Gailes Marsh & Shewalton Sandpit, ,Ayrshire	D Lang, G Smart & J McIntosh
May 31*	Arthur's Seat, Midlothian	J McIntosh
June 7 *	Whitehills, Banffshire	A Amphlett & I Green
June 13*	Whitelaw Mosses, Roxburghshire	J McIntosh & R Payne
June 20,21	Fearn Peninsula, E. Ross	B & B Ballinger
July 4,5	Yetholme, Roxburghshire	R Corner
July 12	Ben Lui NNR, Mid-Perths	J McIntosh
July 14-20	Isle of Tiree	L Farrell & J Bowler

(* training meeting)

Teeth and leaf characters for the vegetative identification of Wintergreens in E. Ross

BRIAN & BARBARA BALLINGER

All 5 British wintergreen (Pyrolaceae) species have been recorded in E. Ross (VC 106) but two may be locally extinct; *Pyrola rotundifolia* (Round-leaved Wintergreen) and *Moneses uniflora* (One-flowered Wintergreen), although we are still searching. The remaining three; *Pyrola minor* (Common Wintergreen), *Pyrola media* (Intermediate Wintergreen) and *Orthilia secunda* (Serrated Wintergreen) are still to be seen in various locations in the vice-county, but their frequent reluctance to flower has proved a major problem for us since we took over as recorders 5 years ago. Since 2000 *Pyrola minor* has been recorded in 30 tetrads, *Pyrola media* in 9 and *Orthilia secunda* in 21, with some earlier records in other sites. In our area *P. media* is usually to be found at sites over 200m in altitude whereas *P. minor* tends to be seen at lower altitudes. In the last 2 - 5 years only 4 of the 9 *P. media* populations have shown evidence of flowering and we are grateful to Jane Squirrell for genetic testing of some plants to confirm the species.

We were therefore very interested in the draft vegetative key to the Pyrolas being developed by John Poland and have made a preliminary assessment of this in our area. We examined 75 leaves from 5 populations each of *P. media* and *P. minor* and 24 leaves from one population of *P. rotundifolia* near Braemar. For comparison we also took 20 leaves from two sites of *Orthilia secunda* and 15 leaves of one population of *Moneses uniflora.*

Counts of leaf teeth from one side of the leaf revealed more than 15 (ie 16 or more) teeth in 91% of *P. minor* leaves, 13% of *P. media* leaves, 92% of *P. rotundifolia* leaves, 85% of *Orthilia secunda* leaves and 0% of *Moneses uniflora* leaves. There was a wide range in teeth numbers in each sample.

Petiole length was compared with the length of the leaf blades. The petiole was as long or longer than the blade in 1% of *P. minor* leaves, 36% of *P. media,* 58% of *P. rotundifolia* and 0% of both *O. secunda* and *M. uniflora.* The petiole length was over 1.2 cm in 75% of *P. minor* leaves but only 10% of *O. secunda* leaves. *Orthilia secunda* leaves tended to be narrower than those of other species.

Where present the longer styles clearly differentiated *P. media* from *P. minor* and dead heads often persisted for long after flowering.

This has been a useful and memorable exercise, with some assessments being made lying in the snow to measure leaves. We have had to revise several re-

cords, including some of our own. An examination of Edinburgh hebarium material broadly confirmed these findings, although there was some suggestion that our one *Pyrola rotundifolia* population may not have been entirely representative of all others.

Our main conclusion is that counting leaf teeth and measuring petiole and leaf blade length can be valuable, but at least 10 leaves should be examined. The majority of *P. minor* and *P. rotundifolia* leaves have more than 15 (16 or more) teeth along one side of the leaf and most *P. media* leaves have 15 or fewer teeth. If petiole length exceeds blade length in a third or more of the sample it is likely to be *P. media* or *P. rotundifolia* and not *P. minor*.

This is a very preliminary study and should be followed up elsewhere.

Table 1 Vegetative features of Wintergreens

species	Number of leaves examined	More than 15 teeth (one side)	Petiole as long or longer than blade	Petiole length over 1.2cm
P. minor	75	91%	1%	75%
P. media	75	13%	36%	96%
P. rotundifolia	24	92%	58%	100%
O. secunda	20	85%	0%	10%
M. uniflora	15	0%	0%	0%

Elgin Museum and the Darwin Anniversaries in 2009

JANET TRYTHALL

Botanists may be interested to know that, in this year containing two Darwin anniversaries, Elgin Museum will be putting on display six original letters from Charles Darwin. They are part of the scientific archive of one of the Museum's founders, the Reverend Dr George Gordon of Birnie, and held by the Museum on long-term loan from Gordon's family.

The letters relate to Darwin's search for three orchids he needed for his study leading to the publication of the first edition in 1862 of *The Various Contriv-*

ances by which Orchids are Fertilised by Insects.

Almost certainly the two never met. Gordon had probably just left studying in Edinburgh to take up his living at Birnie, near Elgin, by the time Darwin came up to Edinburgh. However, Gordon was very friendly with fellow-student H C Watson (of Vice-County fame), and it was he who gave Gordon's name to Darwin. There is regrettably no record of Gordon's thoughts on evolutionary theory, but it was well known he would always respond as best he could to anyone's request for information about local geology, natural history or archaeology.

Also on display are a couple of related letters from Watson, photos of the orchids in question, a copy of Darwin's orchid book with acknowledgement of Gordon's help in a footnote, and still on the Darwin theme, an "original" Rheinhold bronze, *Monkey contemplating a human skull*.

The Museum holds several collections of pressed plants, dating from the 1830s, as well as various fossil plants. As an independent museum, a small entry charge has to be made, but a visit to the Museum, in its Grade A listed building, with award winning collections of Pictish stones, fossil fish and reptiles, and other tales of Moray and beyond, is unlikely to disappoint.

Elgin Museum, 1 High Street, Elgin, Moray, IV30 1EQ
Opening hours:
April-October
Mon-Fri 10-5, Sat 11-4
Winter, and any other times: by appointment (or take pot-luck)
Contacts: curator@elginmuseum.org.uk Tel. 01343 543675

Fumaria reuteri **(Martin's Ramping-fumitory) in Kintyre — a follow up**

IAN TEESDALE

In my article on fumitories in Kintyre in the 2008 issue of the *BSBI Scottish Newsletter* I described the discovery of *Fumaria reuteri* in a Campbeltown garden. As the publication went to press, doubts were raised about its identification, and a note was added to the article.

I can now report that fresh material was collected in July 2008 and Rose Murphy has now confirmed the identification during her work for her forth-coming BSBI Handbook on fumitories.

Coastal plant population changes in Kirkcudbrightshire (VC 73)

DAVID HAWKER

In the past few years, especially since 2003 when population monitoring began in earnest here, there have been notable changes recorded in the population sizes of at least five species along the Scottish Solway coast. This part of the UK has long been regarded as a western zone where plants of southern distribution overlap those of a northern distribution. Such species include *Mertensia maritime* (Oysterplant), *Ligusticum scoticum* (Scots Lovage), *Crithmum maritimum* (Rock Samphire), *Hierochloe odorata* (Holy-grass) and *Seriphidium maritimum*. It is therefore an ideal area in which to study changes in populations which may reflect climate change.

Five species have been singled out as there is sufficient data available for a number of date classes.

***Calamagrostis epigejos* (Wood Small-reed)**

First recorded in 1947 from the Almorness peninsula (centred on NX8352), the plant was shown as occurring in only one hectad in the 1962 *Atlas of the British Flora* (Perring and Walters). Stewart recorded it in two sites in the1990 Flora, Almorness and Port Mary (NX7545) and there was a further record in the late 1980s from Torr Point (NX8351) adjacent to the Almorness record. The *New Atlas of the British and Irish Flora* (Preston *et al* 2002) shows it in three hectads in VC 73, including one north of Kirkcudbright in NX65.

Site Condition Monitoring (SCM) surveys in 2004 showed the plant to be present at Brocks Holes (NX800475) between two colonies of *Hierochloe odorata* from which it has not previously been recorded. It occurs here on the upper shoreline below steep cliffs. In 2008 it was discovered growing more profusely on the more gently sloping cliff top above. This part of the site had been a gorse scrub-covered area, cleared for the construction of a coastal footpath in 2004, since when *C. epigejos* has spread to form in 2008 a dense stand of about 1000m^2 with adjoining outlier clumps. A. Hannah has also sent details of a 5 x 2 m colony in a shallow flushed gully of the sea-cliff, 3 km to the east, at Balcary Point (NX 828491) in November 2008; this constitutes a new tetrad record.

Local Change data shows that this species which is included in the wetland habitats (*Scrophularia nodosa* group) has recorded a not significant increase. However here it is mainly a coastal species and the change may not be applicable to this habitat.

***Centaurium littorale (*Seaside Centuary)**

SCM of the coastline for SNH in 1998/9 recorded this species in almost all coastal hectads between Annan (NY16) in VC 72 and Ravenshall Point (NX55) in VC 73. The 1962 Atlas showed that only five of the 10 hectads then held this species; by 1992, it was recorded from seven hectads while in contrast the 2002 Atlas shows seven occupied hectads in the latest date class and three in the first date class (pre-1970). Of these last three, survey work this season has shown that two of these pre-1970 hectads still hold this species.

While many new sites have been discovered, this is probably partly a result of under-recording in the past. However, expansion has been shown for several of the populations encountered during SCM work in 2003/4 and 2007/8 in VC 73, with increases ranging from amalgamation of close discrete colonies into a continuous band to increased numbers in discrete populations. In 1988 during bird survey work I recorded three flowering plants at Torr Point (NX 823517); the latest count by L. Paton on 9th August 2008 revealed at least 200 plants. Similar, though smaller increases, have been noted at Rascarrel Bay (NX806483), Barlocco Bay (NX795470) and Gypsy Point (NX690436) during the shorter period between 2003/4 and 2007/8.

Local Change data indicate a marginally significant increase between 1987 and 2004 for the *Erodium cicutarium* group of 15 species in coastal habitats; this group includes the related species, *C. erythraea* and *C. pulchellum*.

***Crambe maritima* (Sea-kale)**

This basically southern species has been known from the north Solway coast since 1837 when it was noted at Ross to Balmae (NX64). The 1962 Atlas shows 8 hectads along the Solway spanning VCs 72, 73 and 74 while *Scarce Plants in Britain* (Stewart *et al* 1994) shows 12 hectads up to 1992 and the New Atlas records it from 17 hectads. This is a large species unlikely to have been overlooked in the past. As with *C. littorale,* individual populations have increased in number in the VC 73 colonies over the past 10 years, particularly at Abbey Burnfoot (NX 743445) and Rascarrel and Barlocco Bays, where numbers have gone from <100 to several thousand plants. Most are large mature flowering and fruiting plants; plants need to be at least 5 years old before flowering commences, so the species requires a relatively undisturbed habitat for its continued existence. During 2008 monitoring, many immature and very young plants were recorded in contrast to previous seasons. The Abbey Burnfoot population has gone from 200-300 plants in 2003 to at least 700 in 2008, also spreading in extent.

According to *The Biological Flora of the British Isles* (Scott and Randall 1976), *C. maritima* is restricted to areas where there is a mean annual temperature between 5 and 15°C and of 500-2000mm annual precipitation. Using 1931-60 meteorological data, the Solway coast of VC 73 lay on the 15°C isotherm; whether this still holds is unknown.

***Euphorbia paralias* (Sea Spurge)**

There were no records for this species in VC 73 in the 1962 Atlas and it was only recorded from Mullock Bay (NX9255) and Southwick Merse (NX7143) after 1964 by the 1990 VC Flora. In 1992, it was recorded from only two hectads; there are now five hectads for VC 73 in the New Atlas. Again SCM has recorded an increase in population size, with the most notable being at Rascarrel Bay (NX808484). Here the population was only a few plants in 2004, but in 2008 featured well over 125 plants at all stages of development including prolific fruiting. Particularly prominent were several of the largest plants of this species I have ever seen.

***Raphanus raphanistrum* ssp *maritimus* (Sea Radish)**

First recorded from Port o' Warren in 1843, this species is now very common along the whole of the north Solway coast - seven hectads in 1962 and 27 in 2002. Noted by Stewart (1990) as "now abundant at the top of shingle beaches", the plant has spread to such an extent that a recent holiday visitor to the Brighouse Bay Holiday Park (NX6345) pleaded through the local press that "this horrible yellow weed is taking over the upper part of the beach, forming a tall tangle, and should be removed". During the 2007-08 seasons, this plant was recorded as forming an often dense band at the top of both shingle and sand beaches at many sites in VC 73.

Summary

While some of this data probably relates to better recording between 1962 and the present, it clearly indicates that in recent years, there have been real population increases, both in terms of numbers and sites, in these selected species. These species are largely confined to the coastal strip which in VC 73 lacks any significant form of coastal management or agricultural activity. With the exception of the Brocks Holes cliff-top *C. epigejos*, it is unlikely that habitat management in any form is responsible for these changes and that the reported increases are a response to climate change.

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Bittersweet causing more than a Nightshade

P MACPHERSON

A grassy field at Cathkin to the south of Glasgow is surrounded by a strip of taller vegetation and then an arc of trees. As I recorded along the edge in September 2008, I started to note trees as well as other plants:- a willow to check on, but what then?
From 12 yards distance I could not identify the next tree from the leaf pattern. Accordingly I pushed through (mostly Rosebay Willowherb (*Chamerion angustifolium*) and Common Nettle (*Urtica dioica*). To my surprise I discovered that two adjacent Hawthorns (*Crataegus monogyna*) were completely covered on this northern aspect by Bittersweet (*Solanum dulcamara*). It was also fruiting freely. The area covered was approximately 15 feet wide by 15 feet high, though there was a slight dip at one end, corresponding to the height of the Hawthorn at that point.
The Bittersweet grew from three main woody root stalks, each branched at the base and two adjacent smaller ones. They were all within five feet of each other and some, at least, could well have been connected below ground.
It is, of course, also known as Woody Nightshade.
Referring to the plant, McClintock & Fitter (1956) state that it is 2-5ft. long and in Darwin's words, 'one of the feeblest and poorest of twiners'.

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The Lycopods and Conifers of Forestry Tracks

MICHAEL BRAITHWAITE

I had been shunning forestry tracks in my botanical rambles until the need for a winter walk in December 2007 took me up Hartside Hill in the Lammermuirs VC 81. Here I was amazed to find luxuriant colonies of *Lycopodium clavatum* (Stag's-horn Clubmoss) that were almost continuous over four kilometres of forestry track. *Diphasiastrum alpinum* (Alpine Clubmoss) was also present, but not *Huperzia selago* (Fir Clubmoss) which is unknown in Berwickshire. Since then my winter walks have gradually led to fairly full coverage of suitable forestry tracks in the VC and further populations of lycopods have been discovered in six more forestry plantations. It is time to draw some conclusions from my observations. There is nothing particularly new about recording lycopods by forestry tracks but I do not know of any attempt to detail the ecology involved in these pioneer communities. I am not an ecologist so please bear with me if you are.

The typical Berwickshire habitat for the lycopods is rather specific. The conifers, largely Sitka Spruce, may be 15 to 25 years old planted onto former heather moorland between 200m and 450m. The forestry track is well engineered with a firm surface of stone chippings of acid Silurian greywackes derived from the hillside itself with a ditch on each side with sloping banks, themselves of a notably stony texture. The site is often north-facing or at least well-sheltered by the trees and often on a more or less steep slope cut into the hillside with consequent seepage of ground water into the ditches. The bottom of the ditch may be a carpet of pleurocarpous mosses, rather than the colonies of *Polytrichum commune* or *Sphagnum spp*. found where the ground is peaty, with some *Juncus articulatus* (Jointed Rush). The sides of the ditches have a proportion of open stony material amongst stunted heather with plentiful mosses and lichens, especially small *Polytrichum spp*., *Peltigra spp*. and *Cladonia spp*. *Lycopodium clavatum* may grow for a metre or more from the moss carpet in the bottom of the ditch out onto the ditch banks on either side or may arise on the ditch sides themselves or at the edge of the track; typically about a third of the plants are fertile but sometimes more if the population is mature. *Diphasiastrum alpinum* is much less frequent and is found with its main stems beneath the surface in a very stony habitat either on the ditch sides or at the track side, especially in passing places, and favours the higher altitudes; it too is variously fertile or not. The younger plantations have less well-developed lycopod populations with fewer fertile plants.

The habitats with the pioneer lycopod communities are also colonised freely by conifers. Pines, where present, seem to colonise even more freely than spruce with *Pinus mugo* (Mountain Pine) and *P. contorta* (Lodgepole Pine) being particularly fecund from an early age, but there is often a good mixture of species

with *Larix x marschlinsii* (Hybrid Larch) also frequent. After a period of years the conifers may completely dominate the ditches and more or less eliminate the lycopods. Indeed they may become a real nuisance to the foresters and be cut back by saws or hedge-cutting machinery. The litter left when they are cleared is unsuited to lycopods and may eventually be colonised by grasses. Similar considerations apply where there has been commercial felling: the general disturbance by heavy machinery leaves a muddy or peaty residue with tree litter where grasses and rushes colonise rather than heather and lycopods.
Similar tracks have been constructed by sporting estates across open moorland in the Lammermuirs but I had not found lycopods beside them until this year. The tracksides are often too peaty for lycopods or too open and liable to dry out. The vegetation beside the older tracks consists of mature stands of heather or grass swards that do not offer opportunities for pioneer species. Most are also subject to sheep grazing and muirburn will also occur at least nearby with the trackside vegetation being either burnt out or subject to ash deposits, neither being good news for lycopods. However I have now found a 1km stretch of track between 400m and 475m to be sparsely colonised by non-fertile lycopods including a single fire-damaged plant of *Diphasiastrum alpinum*, with most of the plants in passing places. In addition a steep stony bank by the A68 at 350m, arising from a realignment of the road, has been well colonised by lycopods.

It seems then that the current resurgence in lycopods in VC 81 which has led to an increase in their populations by about a hundred-fold from a low base-point may be but a temporary phenomenon. It would be interesting to learn whether this pattern is being mirrored in other VCs in habitats away from the higher hills.

Revised 17 January 2009

Addendum by David Hawker

My thanks to MB for giving me the opportunity to comment on the above interesting article - in part reflecting my observations over the past 15 years in VCs 72, 73, 74, 75, 78, 79, 80, 81, 98 and 101. The records have all been of *Lycopodium clavatum* and *Diphasiastrum alpinum*, with no *Huperzia selago.* The altitudes have varied from about 200m asl (VC 74, 75 and 101) to around 500m (the rest). The favoured habitats seem to be fine-grained mineral flat ground (passing places and old quarries) to slopes <30 degrees, again with fine-grained substrates. *D. alpinum* seems to prefer flat ground, while *L. clavatum* grows on both flat areas and on slopes, sometimes among larger grained or small stone substrates. As stated, conifer regeneration is a definite threat as is road and bank regrading prior to clear-felling and timber haulage. However ericoid regeneration seems to have little effect, with both species growing easily under the shrub

canopy. I've also found *Vaccinium oxycoccus* in VC 74 growing with both species on forest road-sides on rather stonier material. One of the best and most extensive stands of *L. annotinum* I've come across occupied a flat, fine-grained substrate at around 600m on a summit (not in forestry or even near any) where the peat had been scraped clear several decades ago to expose the fine-grained granitic mineral ground - the plant also grew on the nearby peat banks but was nowhere nearly as extensive.

I've yet to record it, but with the advent of similar roads servicing the many wind-farms in S Scotland, often at altitudes up to 650m, it is possible that we may see colonisation happening here eventually.

There's certainly a case for raising awareness of the importance of the forest habitat, especially roads and quarries, with FCS, the private timber companies and the conservation bodies.

Threatened Plants

J MUSCOTT

VC 84 (West Lothian) is a small vice-county and has few sites for threatened plants; there were just 4 species at 5 sites included in the lists put out last year, so, although I did not have to, I ended up checking them all, and the results were not without interest.

Astragalus danicus (Purple Milk-vetch) occurs at 2 sites, the Binns and Dalmeny. At the Binns it grows in short turf on a steep slope below the Tower. The rosettes are tiny and I have never caught it in flower there. However it has persisted for some time, and another plant, *Trifolium striatum* (Knotted Clover), also rare in VC 84 persists nearby. At the other site, Hound Point, Dalmeny, it grows in well-grazed calcareous sand and I remember seeing it in full bloom some years ago. No longer. Most of the plants were tiny like those at the Binns, and the only ones in flower were a couple in longer vegetation beside a path. I suspect both grazing and trampling - by walkers in summer and bird-watchers in winter.

These problems did not seem to affect the *Gentianella campestris* (Field Gentian) found in the same area. It's an Edinburgh BAP species, and David Adamson has been monitoring it since 2000. It seemed to be on the verge of extinction; the population had declined from around 450 plants in 2002 to about 35 in 2005, and the count was zero in 2006 and 2007 (though I did see a single plant very late in that year). It was therefore with surprise and delight that we recorded nearly 500 plants this year.

Possibly the very dry summer in 2006 had an effect (the area is very well drained), but clearly seed can remain dormant for quite some time, until conditions are suitable for germination. Clearly too it is unpalatable to rabbits; the surrounding turf is barely 1 cm high, but these plants were a good 10 cm and some

had over 100 flowers. I seemed to see an awful lot of *Gentianella* this year (mainly in Perthshire) and wonder if it has had a particularly good year.
The third plant on the list was *Scleranthus annuus* (Annual Knawel), and that too was having a successful time. It is found in shallow soils on a steep hillside near Ochiltree, a natural habitat where it seems to be thriving. There are a number of barish patches where some hundreds of plants may be found, plus a trampled area by a sheep path on a nearby hill (where I had to correct the map reference). Interestingly a second site was discovered by Paul Stanley in the gravel car park at Bo'ness Station. This of course is a more artificial site, and more at risk - it only takes a can of weed killer!
The one disappointment was *Stellaria palustris* (Marsh Stitchwort), which was discovered by Keith Watson in the Bathgate flood lagoon near Windyknowes in 1996. 1 did not have too much difficulty finding it in 1999, but did not have a GPS at the time so its exact location is not recorded. The lagoon is now fairly densely overgrown with wetland vegetation which reaches to my shoulder, so a search is not easy and I could not re-find the plant. I suspect it may have been crowded out, but it's perhaps worth another look next year.

Bo'ness J MUSCOTT

I was encouraged to visit various parts of Bo'ness again after Paul Stanley from the Isle of Wight notified me of some interesting plants in the gravel (overflow) car park at Bo'ness Station. Bo'ness is an interesting place with large brownfield areas following the demise of its various industries. A mining town for around 800 years, which exported 'sea coal' to Scandinavia in the north and London in the south, the pit was finally closed in 1984, and the coal bing pushed into the sea forming a kind of nose. The area has been planted with trees and sown with flowers, not necessarily native to the area but suitable for the calcareous substrate. As a result it's the only place in VC 84 where plants like Carrot (*Daucus carota*) and Hoary Plantain (*Plantago media*) can be found. Orchids (*Dactylorhiza fuchsii*, *D. purpurella* and their hybrid) have planted themselves, and it was somewhere nearby that I found Warty Cabbage (*Bunias orientalis*) a few years ago.
A salt industry was built up on the back of the coal, and later a pottery, when suitable clay was discovered nearby. As the mine went deeper it became flooded, and it was here that James Watt started work on his improved steam engine intended to pump out the flood water. Unfortunately his backer, John Roebuck, went bust (in a banking collapse!) and the work was completed down south. Softwoods from Scandinavia came to the port (mainly for use as pit props), and a branch railway was built to connect the town with the main Edinburgh - Glasgow line, taking in the Birkhill clay mine en route.

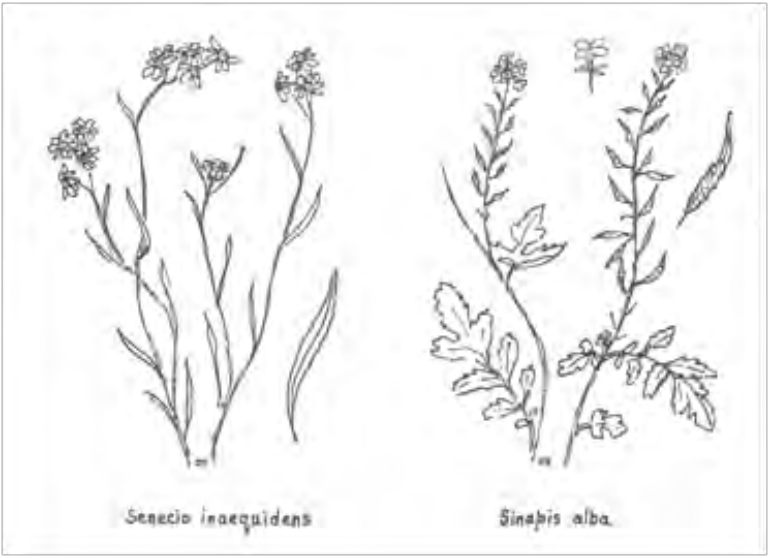
When I first became recorder for VC 84, 1 looked at the map and saw 'disused railway line' at Bo'ness, so I went to botanise it. I was a bit surprised to see rails, and even more surprised when the rails started to 'sing' with the approach of a train, for by then the line had been re-opened as a tourist attraction using steam trains. (But the route is well worth a botanist's attention, and the river gorge at Birkhill is an SSSI.)

The steam railway and accompanying museum seem to be a success and a splendid new car park has been built. But the botanical interest is in the gravelled overflow car park. It is here that Paul Stanley discovered 2 plants new to the VC (and possibly Scotland), the Willowherb, *Epilobium tetragonum*, and Narrow-leaved Ragwort (*Senecio inaequidens*). There were other interesting plants in the car park: *Scleranthus annuus* (see 'Threatened Plants'), Scarlet Pimpernel (*Anagallis arvensis*), Black Nightshade (*Solanum nigrum*) and Small Cudweed (*Filago minima*). I was particularly pleased to see the latter as it seems to have disappeared from the old sand pit at North Couston where it was once abundant (the sand pit has been tidied up). There was also a single plant of Balm (*Melissa officinalis*) in a hedge at the car park. In a rough corner to the south of Bo'ness another new plant turned up, *Rorippa* x *armoracoides* (*R. austriaca* x *sylvestris*), which I mis-identified, as *Neslia paniculata*, but which Douglas McKean (who put me right) says is becoming more common.

To the west of Bo'ness and the north of Kinneil Kerse there used to be a bay, which has now been reclaimed from the sea, by infilling with rubbish (which still continues) though there is still a lagoon left, and some wetland close to the Avon. The chemical works from Grangemouth are already moving across the river, but I hope some of the wetlands are left, if only as flood defences. One plant that has benefitted is *Calamagrostis epigejos* (Wood Small-reed). Twenty years ago I noted it in a couple of drainage ditches, now it not only dominates some of the wet areas but is spreading itself round and about the town. The surviving lagoon also has a large colony of *Brassica nigra* (Black Mustard)along its western edge. This plant was last recorded in Martin's Field Club Flora of 1934, and must have been relatively dormant since then. Now it can scarcely be missed (even if I did mis-identify it when I collected it this autumn).

In recent years new concrete flood defences have been built to protect Bo'ness from the sea. This has meant the destruction of the vegetation which had colonised the old defences, but of course the newly turned soil offers new opportunities. Both Crown Vetch (*Securigera varia*) and Wild Mignonette (*Reseda lutea* seem to have survived (the former doing particularly well), and White Mustard (*Sinapis alba*) has turned up on a soil dump.

Bo'ness is constantly changing, and one hopes it never gets completely 'tidied up'. Brown field sites are so interesting!



Meadow Saxifrage (*Saxifraga granulata*) as a Rock and Wall Plant

P MACPHERSON

The first record for Meadow Saxifrage in Lanarkshire (VC 77) was made in 1772 from the Falls of Clyde at Corra Linn, but without any comment as to habitat. (Lightfoot 1777).

Since the 1970s I have known it to grow in the above area on rock ledges, from close to, to well above the River Clyde water level. In addition, it is to be found on the walls in relation to the adjacent Corra Castle.
Further upstream it grows on the rock face of an island below the Bonnington Dam.
Habitats quoted for the plant include, "well drained, base –rich grassland" (Stace 1997) and "dry meadows and woods and sandy ground" (McClintock & Fitter (1956).
I should be interested to learn if other members have seen it in similar, or other unusual habitats.

References

Lightfoot, J (1777). *Flora Scotica.* London.
McClintock, D & Fitter, RSR (1956). *The Pocket Guide to Wild Flowers.* Collins, London.
Stace, C (1997). *New Flora of the British Isles* (2nd Edition). Cambridge University Press.

Brambles New to Scotland, Post 1980

GH BALLANTYNE

This article is a follow up of that on "Scottish Brambles in the 20th Century" which was published in the last issue of the Newsletter.
During the 1960-80s Eric Edees and Alan Newton made several visits to Scotland and, along with checks of various herbaria, were able to add several species to the Scottish list. Three were actually new to science though one was first recorded in NE England:

(1) *R. pictorum*: what had become known as "false iodnephes" owing to its superficial resemblence to *R. iodnephes*, a London area bramble, was named by Edees in 1982. This proved to be common across the central belt, and was then found to be frequent also in Wales (but *R. celticus* had already been applied to a bramble endemic there.)
(2) *R. ebudensis*: a bramble of the NW known as "false gratus" was so named by Newton in 1988; it was confined to VCs 104 and 110 then and has not yet been found elsewhere and in fact may be declining (Newton 2008).
(3) *R. newtonii*: this fairly distinctive trifoliate bramble (" R. trifolius") was discovered by Alan Newton in NE England in the 1980s and later also by the author and Allan Stirling in SE Scotland. A concerted search in 2001/02 in these areas indicated it was widespread and frequent in VCs 67 and 68 and, to a lesser extent, in 81 and 82. Allan Newton suggested it might be named after him and the author had great pleasure in being so honoured.

A further three brambles new to Scotland were included in the the Bramble monograph (Edees & Newton 1988), i.e. *R. armipotens* (Ayrshire and later Midlothian), *R. lanatacaulis* (Ayrshire) and *R. cumbrensis* (Dumfries). A fourth was of particular interest to Allan Stirling, who had come across it quite a lot in west Scotland; at first the experts indicated that it did not match any known species and so Allan coined the name "crassicaulis"; it was indeed thick-stemmed, as I discovered when by chance I first encountered it at Dunbar, one of its very few east coast stations. However, following more research it was decreed that this bramble was in fact a robust version of a species common in south England, *R. subinermoides*. Allan was quite disappointed, I remember, and even during what turned out to be the last occasion I was in his company, was sure that "his" name ought to have stood.

Since 1988 the following species known in England (some also in Ireland) have been found in Scotland, mostly by the writer during his annual batalogical trips to most mainland vice-counties (Table 1). Some of these have been far from their next known stations; a few have been a mere bush or two (probably bird-

sown) while others are well established, especially in or near old policy woodland where they may have been brought in with the original plantings. In this list "jt" indicates it was found jointly with the local VCR; an underlined VC number means that the species was found either by the VCR or that it turned up in a herbarium; and "2nd" indicates a second Scottish record. Nomenclature is according to Randall & Newton (2004). As ever, best thanks are owed to Alan Newton and David Allan for their determinations; and to the late Allan Stirling, David Welch and Tony Church for local help.

Table 1

R. aghadergensis:	102(jt),105,106	R. naldretti:	85
R. anglocandicans:	90,91(jt)	R. phaeocarpus:	73, 83,85
R. atrebatum:	73,85	R. robiae:	85 (2nd)
R. bartonii:	73, 88	R. rubristylus:	85
R. boudiccae:	100, 101(jt)	R. rudis:	85
R. cantianus:	85	R. sciocharis:	82,83,85, 93
R. dentatifolius:	87 (in Fife)	R. subtercanens:	83,99
R. hartmanii:	74(2nd)	R. surreyanus:	100 (jt)
R. hindii:	83,92(jt),93,102,106	R. trichodes:	83
R. incurvatus:	86	R. waddellii	72(conf), 73
R. largificus	87 (in Fife)	R. warrenii	106
R. leightonii	85		
R. melanodermis	82		

It will be seen that ten are listed from Fife (85 and 87), which is of course the author's home ground; no fewer than four are from North Queensferry, where they must have been introduced during defensive preparations for the guarding of the Forth Bridge during either or both world wars. Careful investigation of other central and southern VCs may reveal a similar variety of unexpected species, while those further north, not to be out- done, will almost certainly contain the odd surprise. Including *R. caesius* (Dewberry), there are now 75 brambles known from north of the border.

References

Ballantyne, GH (2008). Scottish Brambles in the 20th Century. *BSBI Scottish Newsletter* No.30:31-34.

Edees, ES & Newton, A (1988). *Brambles of the British Isles*. Ray Society, London.

Newton, A (2008). Brambles in the Hebrides, 2007, *BSS News*, No 90: 42-43.

Randall, R. & Newton, A (2004). *Atlas of British and Irish Brambles*. BSBI, London.

Requests:

Juncus specimens required. The hybrid *J. x kern-reichgeltii* has been studied and an article will be published in 2009 on its identification. Requests were made in *BSBI News*, but very little material was received and only two plants from Ireland. I would be grateful for any specimens (individuals or populations) for determination in order to build up a picture of distribution. This would also apply to the rush *J. surrejanus* and *J. acutiflorus* (but not before the end of July; i.e. plants at the fruiting stage only).

Also any *Epilobium* species required, particularly in **flower** (with a few fruits to make sure it is not a hybrid, though will be acceptable). Smaller plants from the base, though *E. hirsutum* can be just the top part with flowers and a few fruits. The two sub/alpine species and *E. lanceolatum* are particularly welcome and any in the *E. tetragonum* group. Fresh if possible or pressed— if pressing plants, they can be saved up and sent at a later date in an envelope.

Additionally, I would be interested in receiving *Elytrigia repens* with none or very short awns and those with the very long awns up to 18mm (var *aristata*) in flower/fruiting stage. Pressed or semi-pressed or even fresh would be useful. Any other *Elytrigia* would be welcome.

Mike Wilcox– 32 Shawbridge St., Clitheroe, BB7 1LZ
michaelpw22@hotmail.com

BSBI / BSS Scottish Annual Meeting 2009

This year's Scottish Annual Meeting will be held at **the Queen's Hotel in Perth**. This is a change to the originally announced venue at SNH Battleby, Perth. The hotel is adjacent to Perth's main bus and railway stations - both with connections to all main Scottish towns and cities. Any accommodation required should be booked now, as our event coincides with a major international conference in the city. There are a small number of rooms still available at the Queen's Hotel and its sister hotel, the Lovat for the evening of the 7th but none at either on the 6th. Subject to this limited availability, the Queen's Hotel is offering reduced accommodation rates. For information on the Queen's Hotel see: www.symphonyhotels.co.uk or telephone 01738 442222.
The Visit Scotland website provides information on alternative accommodation in Perth and the surrounding area - which is well served by hotels at Dunkeld, Blairgowrie, Kinross and Crieff, all of which are about 17 miles distant. See

www.visitscotland.com or phone 01738 450600.
The programme is likely to include the usual lively mix of presentations, discussion and botanical exhibitions. Clive Stace has agreed to give the main presentation – so we can expect a good turn-out. The day will start as usual with registration from 09:00. Tea and coffee will be available on individual purchase (£1.50) from the hotel throughout the day. A buffet lunch (£9.00) and evening meal (£22.00) will be arranged, and menus issued and orders for both taken nearer the time. A bar will be open during the evening meal.
As usual we welcome everyone interested in botany – not just society members, so please feel free to bring friends or colleagues. Watch out for the booking flier in BSBI News later in the year!
Alistair Godfrey, Scottish Committee Exhibition Secretary
Telephone: 01738 827140

Scottish Officer News

Threatened Plant Project in 2009 in Scotland

The Threatened Plants Project is a major BSBI initiative to learn more about UK Biodiversity Action Plan and Red Data List threatened and near threatened species. We will be writing to Recorders shortly with full details. As in 2008 the species selected for survey fall into three categories in Scotland. The relatively widespread Heath Cudweed (*Gnaphalium sylvaticum*), Frog Orchid (*Coeloglossum viride*) and Maiden Pink (*Dianthus deltoides*). The more local Wood Bitter-vetch (*Vicia orobus*), Narrow-leaved Helleborine (*Cephalanthera longifolia*), Tubular Water-dropwort (*Oenanthe fistulosa*) and Opposite-leaved Pondweed (*Groenlandia densa*) and the totally absent Rare Spring-sedge (*Carex ericetorum*), Copse-bindweed (*Fallopia dumetorum*) and Crested Cow-wheat (*Melampyrum cristatum*)! So only seven of ten species occur north of the border which makes our task a little easier. But Scottish vice-counties are big and botanists are thin on the ground. Despite this there was a terrific response to the Threatened Plant Project last year in Scotland – with about one third of all completed reports coming from north of the border! To help maintain that excellent record, VCRs might like to ask local members to help with the survey, perhaps after some field training. Or conversely local or visiting members might like to volunteer!

Atlas Updating Fieldwork

The Maps Scheme pages on the BSBI website update similar maps which appeared in the *New Atlas* with a new date class of 2000-2009. Records entered

into the MapMate system are used to regularly update these maps. This is the final year in the date class and we are asking Vice-county Recorders to target hectads with few or no records in the current date class to plug the holes. Again Recorders might like to ask local members to help, and conversely local members might like to volunteer!

Site Condition Monitoring

The BSBI continues to make a significant contribution to Site Condition Monitoring. Our volunteers are planning to undertake surveys at another eight sites across Scotland in 2009 from the coast at St Cyrus to montane sites such as Carn Gorm & Meall Garbh (Glen Lyon). Generally 'lead' volunteers arrange the fieldwork and do the report writing, whilst field volunteers help them with fieldwork. 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.

Rare Plant Register Workshop: April 2009

Rare Plant Registers, or local red lists, are a great way of making our records and botanical skill useful to conservationists and land managers. They also help promote recording activity. So by the time you read this, we hope to have held a very successful residential weekend workshop for Scottish Vice-county Recorders at Kindrogan Field Studies Centre, on the theme of *Rare Plant Registers - how to make a start*. There are also sessions on MapMate, the Computerisation Project and Site Condition Monitoring. We plan to write up the workshop's key points, questions and answers and publish them in a report to be distributed to all Scottish Recorders.

Scottish Officer

The Scottish Officer project began its second term in November 2008. This time the term will be for three years. In addition to the main funders BSBI and SNH, Royal Botanic Garden Edinburgh is also supporting the post – by way of an in-kind contribution of office facilities. The post holder, Jim McIntosh, will continue with a similar remit to deliver major conservation initiatives such as Site Condition Monitoring, the Threatened Plant Project and Rare Plant Registers as well as to support the BSBI Scottish membership – particularly hard-pressed Vice-county Recorders.

Computerisation Project

Over the past year 250,000 Scottish Vice-county Recorders paper records have

been digitised by this project, which aims to make them more widely available, to the BSBI, BRC Vascular Plant DataBase, the NBN Gateway and to the Vice-county Recorders themselves, of course! We are now in the final two years of the project and a huge tranche of work involving 400,000 records in Argyll, Clyde Isles & Kirkcudbright and relating to *The Changing Flora of Glasgow* has just been contracted out.

Beyond the Computerisation Project

As the Computerisation Project nears completion, we are now looking for volunteers to help with the ongoing computerisation of new field records that are collected in a number of Scottish vice-counties. For further details see the separate advert.

Scottish Vice-county Recorders

Since the last Scottish Newsletter there have been a number of Scottish Vice-county Recorders changes. Elaine Bullard, our most senior and one of our longest serving VCRs in Scotland has just retired. A press release was issued and a short article appeared in *The Press & Journal*. John Crossley a local botanist, ecologist and farmer will take over as Orkney BSBI recorder. Last year Duncan Donald was appointed as Recorder for West Ross. Duncan is a young retiree and local resident with a long history of botanical involvement in the BSBI and elsewhere.

A number of joint recorderships were confirmed last year including Gill Smart in Ayrshire and Carl Farmer in Argyll. Gill will work with Dave Lang. She lives and works in Ayrshire—for SWT as their reserves manager. Dave will continue as the main point of contact for enquiries. Carl will work with Gordon Rothero in Argyll, and has got off to a flying start having collected (and digitised) 17,000 records during his first field season. Carl becomes the new point of contact.

Finally we regret to announce a couple of resignations - Ruth Mitchell from South Aberdeenshire and Alistair Ross from Easterness, both due to personal reasons. Ruth's departure has left a vacancy which was advertised in the January BSBI News, whilst Alistair's will leave Sarah Smyth & Jeff Waddell in charge of Easterness. We would very much like to thank all the outgoing Vice-county Recorders and warmly welcome all new appointees.

Scottish BSBI webpages

The Scottish BSBI webpages are managed by Jane Squirrell. They include Scot-

tish BSBI news, details of Scottish field and indoor meetings, abstracts from the Scottish Annual Meeting and a Scottish Officer's page. Do have a look - 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 so she can report it on the website. She would be also pleased to receive any field meeting reports with photographs. Sadly I have to report that Jane is leaving Scotland. However the good news is that she has kindly agreed to continue as web manager. If you would like to contribute an article please use the link at the bottom of the web-site home page.

Jim McIntosh, BSBI Scottish Officer, c/o Royal Botanic Garden, 20A Inverleith Row, Edinburgh, EH3 5LR; Tel: 0131 2482894 or 0791 7152580; j.mcintosh@rbge.ac.uk

Vacancies for Vice-county Recorder Assistants

A number of Scottish BSBI Vice-County Recorders need help to enter their plant records into computers. This aspect of Recorders' work is becoming increasingly important in order to make plant records more widely available to conservationists, botanists, land-managers and researchers. During the past three years the BSBI has employed contractors to help Recorders 'catch up' with the backlog of paper records. SNH funding for that project is due to finish in two years' time (2011) and we are now looking for volunteers to help with the ongoing computerisation of new field records that Recorders collect. Help is required in the following vice-counties: Angus, Fife & Kinross, the Lothians, Mid-Ebudes (Mull, Tiree & Coll) and Peebles – amongst others.

Experience with computers, including e-mail, Word and Excel would be essential. Although volunteers would not necessarily need to know how to use MapMate that would obviously be a great advantage. However it is easy to learn and training will be provided (if required). Experience with similar recording systems such as Recorder would help. Access to a broadband connection would be a great advantage for sending the digitised data to the Recorder and the BSBI Hub.

Attention to detail and ensuring that the records are digitised accurately would be very important. Of course to err is to be human and the Recorder would also have to check the digitised records and help by giving you feedback periodically. Knowledge of the geography and place names of the vice-county would help enormously, and that often comes with living in or near the area, but that is not essential. In addition, one can refer to gazetteers. Similarly an understanding of the flora of the vice-county would help but is not essential as the Recorder will guide on taxonomic and related issues.

There is scope for those starting as Assistants and keen to develop their botanical and recording interest to serve a general apprenticeship with the VCR, and this may in time lead to a joint recordership.
If you are interested in helping with this important work, please send me a note of your interest along with a CV detailing your relevant experience. Include a note of the vice-counties that you could help with.
Jim McIntosh, BSBI Scottish Officer
RBGE, 20A Inverleith Row, Edinburgh EH3 5LR
E-mail j.mcintosh@rbge.ac.uk

BSS Alpine Field Meeting

Saturday 27th June 2009 Ben Vrackie, East Perthshire (VC 89)

Leader: John Holland

This year's alpine field meeting is to Ben Vrackie (NN9563) near Pitlochry in Perthshire. Ben Vrackie is a SSSI with a rich alpine flora and is of particular importance for its cliff vegetation on both acid and calcareous rocks. Meet at the Ben Vrackie car park (NN944598) which is just to the north of the village of Moulin (turn left off the A924 immediately after the Moulin Hotel). All BSBI members welcome. Please contact John Holland for details and to confirm a place, tel. 01567 820509 (evening), E-mail john.holland@sac.ac.uk.

Botanical courses at the Royal Botanic Garden Edinburgh 2009

Heather McHaffie

There is a large range of Botanical courses running at the Botanic Garden in Edinburgh ranging from one-day courses on mosses, lichens, ferns, wild flowers, use of the microscope and how plants have evolved and relate to one another. There are also evening classes lasting for a term on Beginning Botany or Recognising Plant Families. A wider range is available during the day through attending modules that are taught as part of the BSc course in horticulture covering e.g. Plant Geography and Horticultural Taxonomy. A more recent course is the Certificate of Practical Field Botany which consists of eight modules. This will be taught in Edinburgh on Saturdays from April to September and at Dawyck Botanic Garden near Peebles on Tuesdays. It will also be condensed into a residential week at Kindrogan Field Centre at the end of July. This course is designed to

give a thorough introduction to plant identification and how to record. All course participants receive a hand lens and a copy of Francis Rose's *Wild Flower Key*. There is an introduction to plant families and the names used for flower parts, repeated practise in the use of the key, information about the vice-county system, a session on how and when to press plants and the information needed to make a plant record. Using this knowledge there is the opportunity to apply it in survey methods and the later modules take the form of field trips to different habitats.
There is a small assessment component with marks awarded for note-taking, for pressed specimens and ID tests on living plants with a certificate awarded at the end. This course is designed to give confidence in using a key within a friendly group using fresh plant material chosen to cover a range of species.
In 2009 there will be two workshops on specific plant groups. On Thursday 11th June there will be one on *Fumaria* species and arable plants, with a morning session looking at fresh plants and an afternoon field trip. On the 25th June there will be a day on *Equisetum* covering the species in the morning and the commoner hybrids in the afternoon. There is a charge of £25 for each workshop but members of botanical or natural history societies are only charged £10 and students £5. Booking details as below.
Assistance with course fees is available for the longer courses for those who are eligible for the ila scheme. Information about all courses is available from the Education Department, Royal Botanic Garden Edinburgh, 20A Inverleith Row, Edinburgh. EH3 5LR Tel: 0131 248 2937 or http://www.rbge.org.uk/education/home

Introducing Plant Talk Scotland: for people interested in Scottish plants.

Plant Talk Scotland is a new bulletin board discussion forum that has recently been set up to serve the Scottish botanical community and those interested in Scottish plants. The aim is to promote botanical news and events relating to Scottish plants, to enable people to stay in touch and to encourage discussion and mutual support. Use it to find out what is going, where and when or who to contact. Share news and views, request help in using field equipment, identifying plants, and much more… above all *it is intended to be fun*!

Visitors are welcome at: http://bsbiscotland.easyphpbb.com If you find this interesting then please sign up as a member.

This is not an E-mail Listserver nor a social networking site, so you will not receive any unsolicited emails through signing up - you just look at the web-site when and where you want to and post contributions when you want. Think of it as a communal website to which you can contribute. Your personal contact details are not available to others to use (including the site administrators, so you will not get spam (unsolicited email) through signing up as a member nor be bothered by general emails.

People can contact you through the site using the Private Message facility, but no-one will be able to see your real email address (unless you choose to display this) and Private Messages can only be sent one at a time by genuine registered members. Private Messages will not be forwarded to your personal email, they will be held on your area of the site (only viewable by you) and an automatic PM notification sent to you by email.

Making simple new posts or replying to messages on the forum is easy, so have a go and hopefully you will find it useful. There are some simple guides on the forum, and once you get the hang of things then you can branch out with more advanced posts including fancy formatting, images, attachments or weblinks.

This is based on the long-running forum for Scottish Geocachers (http://geox.easyphpbb.com), which is a similar community of outdoor-orientated enthusiasts who are widely distributed across Scotland and beyond. Please feel free to have a look at their discussion forum to see how the Plant Talk Scotland site might look in time – you may also be tempted into using your GPS to find some geocaches for yourself (see www.geocaching.com) when you are out in the field!

We hope you like it and it proves to be a useful resource.

Mark Watson, On behalf of the BSBI Committee for Scotland

British Pteridological Society Scottish Group
2009 Meetings Programme

Saturday, 30 May	**Ayrshire** Ness Glen, south of Dalmellington - filmy ferns, etc. Auchalton Meadow - moonwort? Culzean Castle Gardens.
Saturday, 20 June	**Isle of Bute** Ascog Hall Fernery work party, *Dryopteris aemula* site on west coast
Saturday, 18 July	**Dunoon, Argyll** Benmore Garden Victorian Fernery, newly restored. Puck's Glen - superb for ferns. Possibly Strone Point - *Asplenium scolopendrium, A. trichomanes, Polypodium interjectum,* etc.
Saturday & Sunday, 29 & 30 August Centred at Inchnadamph Lodge Hostel www.inch-lodge.co.uk 01571 822218	**Sutherland, Inchnadamph.** Joint Meeting with Assynt Field Club. *Gymnocarpium robertianum, Polystichum lonchitis*, *P. aculeatum, Polystichum x illyricum*, *Dryopteris oreades, D. expansa, Diphasiastrum* x *issleri, Pilularia,* and possibly *Isoetes* and *Ophioglossum azoricum,* etc.
Saturday, 12 September	**Bridge of Orchy** *Woodsia alpina* monitoring
Saturday, 3 October	**Edinburgh** Bridget Laue & Paul Sharp's Garden. Slide show, plant swap, next year's programme. Blackford Hill - *Polypodium cambricum, Asplenium septentrionale*

All Welcome

BSBI members are very welcome. If you wish to join any of these outings please contact me well ahead of each date: Frank McGavigan, 12 Glenbank Avenue, Lenzie, Glasgow G66 5AA (0141 776 1019).
E-mail frank@mcgavigan2.demon.co.uk

Plantlife Scotland Events 2009

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

Saturday 30th May, 2-5 pm,
Insh Marshes, near Kingussie, Highland.
Guided walk at one of the most important wetland sites in Europe.

Saturday 13th June, 2-4.30 pm,
Moniack Woodland, near Beauly, Inverness.
Guided woodland walk in beautiful mixed woodland near the famous Moniack Castle Winery. Arranged jointly with the Community Woodland Group at Moniack.

Sunday 28th June, 11 am,
Keltneyburn, near Loch Tay, Perthshire.
Guided walk, visiting the Keltneyburn meadows, where 230 different plants have been recorded, including a number of orchids.

Sunday 5th July, starting 11.30 am,
Whitlaw Mosses National Nature Reserve, near Selkirk, Roxburghshire.
Guided walk at this fascinating wetland site, with willow scrub, herb meadows and butterfly-rich grasslands. *Site exposed, and rough underfoot. Please bring waterproof boots and weatherproof clothing.*

Sunday 26th July, 10 am – 5 pm,
Munsary Peatlands Reserve, near Lybster, Caithness.
Guided walk and opening of the new nature trail at Plantlife's Munsary reserve.
Ken Butler, local plant expert, will lead the walk.

Saturday 8th August, starting 11 am,
Hill and Mountain Research Centre, Scottish Agricultural College Kirkton, Crianlarich. Guided walk led by upland ecologist Dr John Holland of SAC. The research farm focuses on sustainable hill-farming and its effects on upland biodiversity. ***Note: upland site on rough ground****. Please bring waterproof boots and weatherproof clothing.*

Sunday 20th September, 2 – 4 pm,

Morrone Hill, near Braemar, Aberdeenshire.
Fungi foray led by freelance mycologist Liz Holden, around Morrone birkwood.

Saturday 3rd October (two half-day walks),
Balmaha Park Centre, Loch Lomond and the Trossachs National Park.
Guided walks looking at bryophytes in the woodlands by Loch Lomond. Led by bryologist Gordon Rothero, in partnership with the National Park. Contact Matilda Scharsach (01786 469778) nearer the date for details.

Booking information
For more details and timings of all events in Scotland, and to book a place, please email Scotland@plantlife.org.uk or phone Jill Williams on 01786 479382. Events are open to all and are free of charge. If you have any special needs please mention them when booking. Please also leave a contact telephone number for the unlikely event of cancellation. We ask that children under 16 are accompanied, and that dogs are left at home.

What to bring
outdoor clothing appropriate to the weather
waterproof outers (top & bottom)
sturdy footwear – e.g. walking boots
sun hat and sun block (or high-factor cream)
packed lunch & something to drink

BSBI members are **very** welcome to attend.