BSBI SCOTTISH NEWSLETTER

Number 37

Spring 2015



Photographic Competition 2014 (see page 58) On Front Cover: Yellow Rattle



Gwyn Jones wading in Loch Sneosdal on the Isle of Skye, Skye Botany Group meeting



Rustle-up Some Trees



Fig 1. Irish Lady's-tresses (see page 48)



Fig 2. Tufted Saxifrage (see page 48)



Fig. 3. American Skunk-cabbage (see page 48)



Fig. 4. False Virginia-creeper (see page 50)

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Editorial

An innovation this year is the inclusion of vice-county reports. Our Scottish Officer was so impressed by the "breadth and depth of botanical effort of the recorders in Scotland" shown in the reports he had received, that he asked if they might be included in the Newsletter.

I was happy to do this, but as they ranged from one to >75 lines, wished a maximum of 20 lines. Accordingly, some have had to be reduced. It will be appreciated that the narrower pages in the Newsletter accounts for the fact that some exceed this limit.

For the second time we have colour photographs. These either complement an article or were chosen from the entries in the 2014 Photographic Competition. As you will be aware, the photographs submitted by the winners, Ludi Lochner and John Crellin, appeared in the January 2015 issue of *BSBI News*. Full details are given on page 58.

The format of the November 2014 Annual Meeting differed from that on previous occasions and this has resulted in some repetition in the reports thereof. There is also understandable duplication on occasions between the Abstract of Exhibits and the VC Collated Reports.

We agreed to the inclusion in our mailing of the Leaflet printed by Kindrogan to publicise their courses as they are one of our most important partners in Scotland.

Last year I commented on the fact that most of the contributors had sent articles in our in-house style. This year very few have done so and some required a considerable amount of change. Please take note. One of the exceptions is Jim McIntosh, whose co-operation has been much appreciated.

Once again, thanks are due to John Hawell, Jackie Muscott, Gwynn Ellis and Lorna Macpherson for <u>their</u> contributions.

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

BSBI/BSS Scottish Annual Meeting TOSH

JANE MacKIN-

& JIM McIN-

TOSH

The 2014 meeting was held on the 1st November at the Royal Botanic Garden Edinburgh.

Mark Watson, RBGE opened the meeting with a welcome to the Royal Botanic Garden Edinburgh (RBGE) and some news on staff changes. Heather McHaffie (Scottish Plants Conservation Officer) and David Long (Head of Cryptogams) both retired this year. A new bryologist, Neil Bell, is in post and Sally Eaton will succeed Heather. Recruitment for a new mycologist is underway. Mark encouraged BSBI & BSS members to make use of the RBGE library and herbarium. For those who can't get to Edinburgh, the RBGE is digitising the herbarium - 23% of specimens have been digitised so far, including all the type specimens – take a look online www.rbge.org.uk/databases.

Robin Payne, BSBI Scottish Chairman, presented the BSBI AGM in a new illustrated format entitled *The BSBI Scottish Year*. He began by congratulating Jim McIntosh on completing 10 years in the post of Scottish Officer, and Rod Corner on receiving the Marsh Prize for Botany. In his Chairman's Report, Robin thanked all the volunteers and staff involved in making the BSBI successful in Scotland. He especially thanked Jane Houldsworth for helping to forge strong links between Scotland and the centre and Peter Macpherson for editing and producing the Scottish Newsletter. (Draft Minutes of the AGM are printed in full on page 7).

Jim McIntosh, BSBI Scottish Officer, gave an account of his year's activities with recorders and volunteers. The Scottish recording week at Shiel Bridge was over-subscribed so Angus Hannah ran a parallel week on Arran. Following this success, two recording weeks are planned for each of the next five years, starting with Ayrshire and Shetland in July 2015. A huge amount of training took place in 2014, including plant family identification workshops, a grass identification weekend and introductory workshops on grasses, sedges and ferns. Andy Amphlett organised a team of volunteers in the Cairngorms National Park, who together contributed 20,000 records from the Park. The BSBI MapMate Handbook has been completed and is online. Jim has just completed 10 years in post and is currently applying to SNH for further funding. As part of this process he was asked to calculate the notional value of the work done by BSBI volunteers – an astonishing quarter of a million pounds for 1,500 volunteer-days, annually!

Robin Payne, with a different hat on, provided a short update on Plantlife's activities. Normally this would have been done by Deborah Long however she is currently on sabbatical in Nepal. A new Plantlife CEO, Marian Spain,

has taken over, who has a background in botany, countryside management and charity management. Sadly Ali Murfitt & Matilda Scharsach, have both now left Plantlife Scotland. Robin gave a brief update on progress in Scotland on various Plantlife initiatives such as *Saving Our Magnificent Meadows*, *Coronation Meadows*, and *Important Plant Areas*. He talked about the new National Plant Monitoring Scheme being developed as a partnership with Plantlife, BSBI and others, which builds on the annual common plants survey, but takes it to a new level. He finished off with a plea for botanists to get involved with the project when it launches in spring next year and also a plea for new members for Plantlife – which is currently celebrating its 25th birthday!

John Grace, BSS President, gave an update on changes to the society. The BSS became a Scottish Charitable Incorporated Organisation (SCIO) as a basis for expanding the society's membership and activities, and in order to be able to employ people in the future. The new Council will consist of a central executive along with representatives of working groups dealing with meetings, publications, IT, students, education, outreach and projects. The Urban Flora project is expected to last around 10 years, involving citizen science and using phone apps for recording.

Jim McIntosh, BSBI Scottish Officer, talked about Atlas 2020 and how volunteers can help with recording. The aim of this project is to produce comprehensive maps and data of botanical taxa across the British Isles. The BSBI plans to record a sample of at least five tetrads in every hectad in Britain and Ireland, visiting most of them twice. There are 1110 hectads in Scotland and 831 still need to be recorded in the five remaining seasons. A map of suggested squares on the BSBI website pages shows where recording could be targeted and volunteers can adopt a square to survey. All distribution maps will eventually be available online (see the current *Online Atlas of the British and Irish Flora*). The main outputs will be interpreted data such as a Scottish Red List.

Jakob Assmann, University of Edinburgh gave a presentation entitled Forest forensics - exploring the origins of ash dieback in the UK. He briefly explained the spread, population genetics and population structure of Chalara fraxinea, the fungus that causes ash dieback. Spores are dispersed by wind, infecting new trees through the leaves. The first sign of infection is wilting, followed by black necrosis of the leaves. Diamond shaped lesions form on the stem potentially blocking vascular tissues and the disease can be lethal. Using genetic fingerprinting, Jakob looked at the spread of the disease in Scotland and found a large degree of differentiation between

populations of the fungus compared with a much smaller degree in an area of SE England. Indeed this large differentiation among the populations in Scotland is unique in Europe and suggests multiple very recent introductions of the fungus to the country. It is hard to say how this will affect the resistance of ash populations.

Barbara Sumner, BSBI Recorder for Midlothian gave an account of the work involved in compiling A Rare Plant Register for Midlothian. The process began in March 2012, and the register was published two years later, in March 2014. Any concerns that Barbara has that this publication would expose rare plants to the threat of collection were outweighed by concerns that a lack of knowledge about plant locations leaves them vulnerable to loss through development and management. The Register includes brief details of all native and archaeophyte rare and scarce species that occur in Midlothian. Non-persistent "casuals" are excluded unless they have conservation status. Extinct species are also listed. Many of the register's species have restricted habitat preferences and Barbara concluded that habitat destruction has been the greatest cause of loss of plants in Midlothian.

Ian Strachan, BSBI Recorder for Westerness described two projects he worked on this summer. The first was SNH's Habitat Map of Scotland, which will fulfil Scotland's obligation to monitor the habitats listed in Annex 1 of the EC Habitats Directive, and also the obligation (under the INSPIRE Directive) for habitats to be mapped in a consistent way across Europe. Habitats will be mapped according to the EUNIS (European Nature Information System) classification, which covers all natural and artificial habitats throughout Europe including marine habitats. Ian has developed a manual of EUNIS terrestrial habitats and this is being used for a pilot project mapping the uplands of Scotland. All maps and data will be freely available on-line when they are ready. He noted that EUNIS is not a replacement for the NVC (National Vegetation Classification), which is still an important tool for habitat mapping in Scotland.

Ian also recounted his experience of Extreme Botanising on Ben Nevis. The north face of Ben Nevis has the highest cliffs in Britain and is home to several nationally rare or scarce plants. Ian and Gordon Rothero monitored these with the help of a team of climbing guides – the botanists trained the climbers in plant identification and the climbers helped the botanists reach ledges that may never have been visited before. Several new locations for rare species were recorded, including *Saxifraga rivularis* (Highland Saxifrage), *S. cespitosa* (Tufted Saxifrage), *S. nivalis* (Alpine Saxifrage) and *Poa flexuosa* (Wavy Meadow-grass).

Maria Marin, together with Giles Laverack of Scotia Seeds, is participating in the NASSTEC (NAtive Seed Science, TEchnology and Conservation) Initial Training Network, a European consortium which trains researchers in native seed science, conservation and use. Maria's project is on improving seed quality in large-scale production.

Jonathon Silvertown, iSpot developer and now Professor of Evolutionary Ecology at the University of Edinburgh, gave the final (main) talk of the day, on Re-inventing botany in a networked world. He noted the decline of university botany departments in Europe. Although identification is fundamental to the study of botany and natural history, it is no longer taught in schools and universities. iSpot is an international crowd-sourcing website designed to help beginners put names to species, by connecting them with experts and fellow enthusiasts. Users who would like help to identify sightings, post their observation, with image and location on the website, and other users then post their opinions, with explanations, until a consensus on the likely identification is reached. Users can develop a reputation according to the number of correct identifications they have made; their reputation then adds weight to their subsequent identifications. Identifications come quickly -25% within 10 minutes and 50% within an hour. iSpot also provides keys and software to allow users to make their own keys, and the facility to build up on-line projects.

Draft Minutes of BSBI Scotland AGM 1st November 2014 at Royal Botanic Garden Edinburgh.

Welcome

Chair Robin Payne (RP) welcomed everyone to the meeting.

Apologies

Peter Macpherson, Natalie Harmsworth.

Minutes of 2013 AGM

These were approved as a true record, proposed by Angus Hannah, and seconded by Rod Corner.

Scottish Officer's (Jim McIntosh's) Report

Using useful photographs, Jim McIntosh (JM) reported on some of the

highlights of his year working with BSBI volunteers. Among these was the successful and enjoyable Glen Shiel *Recording Week*. Another recording week was organised and held simultaneously on Arran. The intention is to have 2 such weeks per year over the final 5 years of data collection for Atlas 2020. Vice—county Recorders (VCRs) were encouraged to opt to have one of these in their areas or might like to organise their own weeks (or long weekends).

Plant Families Identification (ID) Workshops were run in Glasgow, Edinburgh and St Andrews, providing 67 participants with enjoyable opportunities to build up ID skills. Each of the workshops was followed by short field meetings. An enthusiastic team of volunteers is involved with this Outreach project, led principally by Faith Anstey, who also produced the written materials, and Jenny Farrar.

ID training events included a weekend on grasses with the grass referee, Arthur Copping, 3 one-day introduction to sedges, ferns and grasses events and 2 general field meetings for people new to BSBI and those improving their ID skills. These were all in addition to the full field meeting programme.

The *BSBI Annual Summer Meeting* was held at Dunkeld and included a full and varied programme of field meetings across Perthshire. JM extended thanks to all the volunteers who made this a successful event.

Regarding *BSBI publicity*, the BSBI attended Scottish Birdfair, where 50 people participated in a Plant ID Quiz and two people joined the society on the day and all 50 were invited, via email, to join the plant families workshops.

Site Condition Monitoring was an important element of Jim's work together with volunteers. In addition to the five surveys the BSBI agreed to undertake, we assisted SNH staff and others on Ben Lui, Loch Lomond and on the north face of Ben Nevis. JM is facilitating the inclusion of the data, collected for SNH, into the BSBI Database.

Andy Amphlett successfully bid to *Cairngorms National Park* (CNP) for funding to support recording in remote areas of the Park which will ultimately inform conservation management and contribute towards the BSBI's Atlas 2020 project. The Park includes parts of 9 vice-counties. During the summer, 20,000 records were collected by 17 volunteers. JM thanked Andy Amphlett for instigating and facilitating this effort. CNP are delighted with the results and may provide future funding.

JM reported that a new *Mapmate Support* Handbook and additional training videos are available on the BSBI MapMate support website.

BSBI VCRs: New joint recorders - Jeff Waddell for Selkirk & Roxburgh, Ian Evans for W. Sutherland. JM reported the death of Catriona Murray, N. Ebudes. Ken Butler wishes to retire in Caithness. BSBI has advertised for VCRs for Dumbarton, Sutherland and Easterness (with little response).

Barbara Sumner has produced *A Rare Plant Register for Midlothian* and Michael Braithwaite published his excellent "A Short Botanical Tour of Berwickshire".

SO post: JM has been in post for 10 years now and the BSBI is bidding for renewed funding for the post from SNH. As part of the process the potential funders asked for a notional idea of the contribution of the volunteers involved in recording in Scotland. JM estimated a minimum of 1500 volunteer days, worth an amazing £230,000 per year.

Chair's Report

Robin Payne (RP) thanked all the Committee for Scotland members, all VCRs and the Scottish Officer for their support, provided with patience and humour. Jane Houldsworth, Head of Operations, was thanked for coming and contributing to the Committee for Scotland meetings. Lynne Farrell was thanked for her help while BSBI General Secretary and Chris Metherell was welcomed to that post. RP reiterated JM's thanks to Faith Anstey, Jenny Farrar and the Plant Families Workshop team. RP welcomed the new look *Scottish Newsletter*, sporting colour for the first time. Thanks to Peter Macpherson as editor.

6. Election to the Committee for Scotland.

Dot Dahl, Luke Gaskell and Martin Robinson, a previous Chair, all retire with immediate effect after two terms of 3 years. Natalie Harmsworth, Aileen Meek and Eric Meek, already having been formally proposed, seconded and accepting nomination, were elected by a very supportive show of hands from members.

RP appealed for nominations for future vacancies on the Committee for Scotland.

7. Field Meetings 2014 and 2015

Angus Hannah reported on a very successful year, 2014, with highlights on Arran and the alpine meet on Beinn Dubhchraig.

Re 2015, Gatehouse of Fleet, Ayrshire, Shetland, the Cleish Hills, Wester Ross and S Aberdeenshire are likely to be included in the forthcoming programme.

8. AOCB – none.

The AGM formally closed at 11 a.m.

Dot Dahl November 2014

BSBI Committee for Scotland 2014-15

Mr R. Payne (*Chair*), Mr S. Edwards (*Vice Chair*), Mrs A. Meek (*Hon. Sec.*), Dr F. Anstey, Mr A. Hannah (*Field Meetings Sec.*), Mrs E. Lavery (*Exhibition Sec.*), Miss R. McGuire (*Publicity Officer*), Dr Ian Strachan, Mr E. Meek, Ms N. Harmsworth.

Attending: Ms J. Farrar (*Botanical Society of Scotland*), Dr D. Long (*Plantlife*), Mr L. A. Mackinlay (*National Trust for Scotland*), Mr J.W. McIntosh (*Scottish Officer*), Mr I. Macdonald (*Scottish Natural Heritage*).

Committee for Scotland Call for Nominations for 2015-/6

At the AGM on 7th November 2015, Liz Laverty will retire from the Committee. Nominations to cover this vacancy, signed by two members of the Society normally resident in, or recorders for, a vice-county in Scotland, and with the written consent of the candidate, who must also qualify as above, should reach the under noted at:

Dashwood, 66 Main Street, Alford, Aberdeenshire, AB33 8AA by 30th September, 2015.

Aileen Meek (Sec.)

Aileen.meek@bsbi.org..uk

Scottish Annual Meeting 2014 – Exhibit Abstracts

Compiled by Jim McIntosh in approximate Vice-county Order

Euphorbia x pseudovirgata in Cumbria (VC 70) Geoffrey Halliday

While recording on Drigg Local Nature Reserve (Cumberland, VC 70) in June I noticed a brilliant patch of yellow in a hollow among old fixed dunes on the seaward side of the Reserve. This proved to be a dense stand of a spurge, a metre high and about 20 x 15m in extent. It was soon identified as *E.* x pseudovirgata (Schur) Soó, the hybrid between the alien species *E. esula* (Leafy Spurge) and *E. waldsteinii* (Waldstein's Spurge) and commonly known as 'Twiggy Spurge'. With the exception of *E. cyparissias* (Cypress Spurge) it is the commonest member of the *E. esula* agg. occurring chiefly in the south and east of England, particularly around London. The Cumberland find is a new VC record and the only post-1987 record along the west coast between south Lancashire and Lanarkshire.

The Rare Plant Register of Cumbria (VC 70) &

Mike Porter

Geoffrey Halliday

The Rare Plant Register of Cumbria, compiled by Mike Porter and Geoffrey Halliday and published by Trollius Publications with the generous financial support of the Cumbria Wildlife Trust, is now available, cost £12, from Summerfield Books. It consists of an introductory section which deals with the reasons for plants' inclusion in the Register, the area covered and recent gains and losses in the Cumbrian Flora. The main section gives the post-1970 status of 287 rare species of native vascular plants. It consists of 125 pages of tables and accounts with six pages of colour plates and 24 distribution maps, also in colour.

New or updated finds in 2013 and 2014 Miles from Dumfriesshire (VC 72)

Chris

Exhibited are photographs of *Alchemilla glomerulans* (Clustered Lady's-mantle) and *Dryopteris expansa* (Northern Buckler-fern) confirmed as new vice-county records in the Moffat Hills by Jeremy Roberts in June 2014. Jeremy had noted them in 2013 on a visit to the NTS enclosures on White Coombe, created primarily to allow the *Salix lapponum* (Downy Willow) to recover from grazing. The resultant luxuriant growth has revealed these new species. It is interesting that Derek Ratcliffe noted a fern probably of this species in 1987 on another part of the Moffat Hills but this was not confirmed at the time. The *Alchemilla* has hairs on the leaf surface. The *Dryopteris* has pinnule segments deeply cut to the mid rib. Herbarium specimens of the following species are exhibited:

A second population in the v-c for *Eleocharis mamillata ssp. austriaca* (Northern Spike-rush) in the Dryfe Water part of the River Annan catchment. The previous record was on a tributary of the river Esk. The inflorescence is markedly more triangular than *E. palustris* as well as other anatomical differences. See Jeremy Roberts' excellent web site.

A first record for *Chenopodium polyspermum* (Many-seeded Goosefoot) on gravels in the River Nith. A second location north of this has been found in 2014. The more or less entire leaves are distinctive.

A new population of *Equisetum hyemale* (Rough Horsetail) found south of Langholm in a new hectad, only the third site in the v-c.

Equisetum variegatum (Variegated Horsetail) was refound at the known Black Esk site. The latter was in the same mire where Rod Corner refound *Juncus alpinoarticulatus* (Alpine Rush) at an earlier visit in 2013. The stem is rough.

A first record for *Carex aquatilis* (Water Sedge) on the River Nith since 1976. It was subsequently also refound lower down the Nith at a site where it was last recorded in 1896. The green underside to the leaf is distinctive when fresh.

New or uncommon *Salix* hybrids confirmed by the *Salix* referee were: *Salix* x *pontederiana* (*Salix cinerea* x *S. purpurea*) first record for over 100 years, *Salix* x *coriacea* (*Salix aurita* x *S. myrsinifolia*) first v-c record,

Salix x smithiana (Salix caprea x S. viminalis) first v-c. record, Salix x laurina (Salix cinerea x S. phylicifolia).

PHEW! Alison Ruther-ford

Never a season like this! Losing three dog-sitters at once and needing to visit south-west Scotland for Atlantic Ivy proved tricky – no coastal trains, only one dog on buses. Dave Lang kindly supplied seats for me and canines in his brother's car, allowing us to reach Ballantrae and beyond. We found *Calamintha vulgare* (Wild Basil). Eight hours fifty minutes travelling, 3 hours 10 minutes botanising. One dog-sitter came back on stream, permitting a return to Balnowlert to photo the *Calamintha*, and explore Ballantrae village's plants. I left the house at 7.45 am, Glasgow Station 9.20, Ayr 10.20, Ayr bus station 11.20, Ballantrae 1.07. *Asplenium ceterach* (Rustyback fern) and over 100 *Calaminthas*. The 4.07 Ayr bus got me home about 8.20. Two hunts in VC 99 for Wild Basil (1930s) – no luck, but two appeared in the garden near an *Erigeron karvinskiana* which had been sent by my sister in Devon, where the plant is common. Wild Basil is exhibited along with details of the two VC 99 trips, four to VC 75 and one to VC 77 and the difficulties of car-free botanising!

Roxburgh and Selkirkshire records (VC 79 & 80) R.W.M. Corner

Symphytum tuberosum x S. uplandicum (Tuberous x Russian Comfrey) VC 80 NCR. Forming a discrete colony over 2 x 3m. in riverside woodland with S. tuberosum. The flowering time appeared to be intermediate between the putative parent species when first seen in 2010. Dr Bob Leaney's very detailed analysis of material collected in 2014 was shown, his final comment being: "It will be interesting if we get some more examples of this hybrid after this exhibit."

Polygonum rurivagum (Cornfield Knotgrass) VC 80 NCR. Occurred as a member of the road edge halophyte community consisting of Atriplex littoralis (Grass-leaved Orache), Polygonum arenastrum (Equal-leaved Knotgrass), Puccinellia distans (Reflexed Saltmarsh-grass), Sagina maritima (Sea Pearlwort) rare and Spergularia marina (Lesser Sea-spurrey). Confirmed by John Akeroyd.

Equisetum x littorale (E. arvense x E. fluviatile; Field x Water Horsetail) in VCs 79 & 80. New to VC 79 when found in the drained bed of Philhope Loch by Mike Porter in 2000 and confirmed by Heather McHaffie. The plants shown were collected in 2009 from this site, VC 80, a second rec-

ord. Plants resembling *E. fluviatile* growing in a drier habitat than usual were confirmed as this hybrid by Heather McHaffie.

The flora of Hawick Burgh – Michael Braithwaite an exercise in fine-scale recording (VC 81)

Atlas 2020 project. These two projects will run concurrently until the end of 2019. The exhibit makes some suggestions for monads and tetrads to be included in the sample for Atlas 2020. Interested recorders may have further suggestions. In 2014 I have recorded the flora of Hawick in some detail. Hawick has a population of about 15,000 and the area recorded has an area of close to 7km² (but divided among 13 monads). I set myself a target of 450 species, I have recorded 630. I have recorded all species at 100m scale, with 10m detail noted as comment for the scarcer species. For scarce species and selected 'interesting' species I have recorded all 100m-scale populations met with separately. For the widespread species I have made one record per monad per visit. 6,000 records have been made. This methodology has enabled me to prepare informative maps in MapMate, using the OS 1:25,000 map as background. Example maps are exhibited. A modest booklet is planned using a few of the maps (with an OS licence).

A short Flora of Berwickshire (VC 81)

Michael Braithwaite

This Flora has been published and is available today for £20 (normally by post with £5 to add for p&p). This is a 'short' Flora as only 415 of the 1,573 taxa ever recorded in Berwickshire have full species accounts, though others are dealt with less formally. There is a full check-list with 1km frequencies. A feature of the Flora is the emphasis on change in the flora over time, made possible by the excellent historical records and the author's own recording over a period of 35 years. The distribution maps are in a variety of formats chosen to emphasise change. There are also several narrative sections dealing with various aspects of change. The companion volume, Berwickshire BSBI Botanical Site Register 2013, is also exhibited. This was circulated to conservation organisations and to fellow-recorders only, it was not available for sale as a condition of the concessionary Ordnance Survey licence for the site maps.

RPR and Atlas 2020 in Midlothian (VC 83) Sumner

Barbara

Now that A Rare Plant Register (RPR) has been published for Midlothian (www.bsbi.org.uk/rare_plants.html), records are being sought for the next edition. Re-finds and new records are all welcome. Records are also being gathered for the aim is to maximise the species list for each hectad. In Mid-

lothian each monad is recorded separately, and interesting plants are pinpointed with a 6-, 8- or 10-figure grid reference according to rarity. The same field excursion may yield data to contribute to both the Atlas 2020 project and the updating of the RPR. Early-, mid- and late-season walks around a monad should catch most species. To facilitate good coverage, please would interested recorders contact the VC recorder (b.sumner@btinternet.com). Thank you.

Umbilicus rupestris (Navelwort or Wall Pennywort)
Sumner

is getting established in Edinburgh (VC 83)

This predominantly western species was unknown in the Lothians until 2009, when Jackie Muscott spotted a few plants on a shady rock on Blackford Hill. These few increased to about 250 plants by 2014. Meanwhile, a single plant appeared in Plewlands Gardens from 2010-2013, recorded by Ken Dawson. Another few plants were found on shady rocks on Calton Hill in 2011 by Barbara Sumner. These few became a colony about 4m high and 5m wide by 2014. In 2014 a thriving colony was spotted by Stuart Maxwell on a wall behind large waste bins in Drummond Street. Where have all these plants come from and how did they get here? Have they been planted? The Plewlands Gardens plant was definitely self-sown. The other sites would be awkward or pointless to plant. Who would bother to reach behind bins and through iron railings to plant seeds or plants on the other side? The greenish tubular flowers are normally self-pollinating and the seeds wind-dispersed. Prevailing winds might have carried seeds eastwards. Recent milder winters might have enabled the tubers of selfsown plants to overwinter successfully and establish colonies.

New plants for West Lothian (VC 84) cott

Jackie Mus-

Barbara

Apium nodiflorum (Fool's Water-cress) - Several plants were discovered in a small stream beside the B903 near its junction with the A904. This stream has been investigated on previous occasions and I was on my way elsewhere when I took a look at it. The stream runs through a couple of gardens, but its not the most obvious garden plant! There are pre-1934 records for this plant at two sites, Almondell and Drumshoreland, both at least 10 km distant. (Apium inundatum (Lesser Marshwort) was also recorded at Drumshoreland and was still present there in 2006, but no sign of A. nodiflorum).

An Alder Alnus sp. - A row of these Alders has been planted outside the ALDI distribution centre on an industrial estate south of Bathgate. The

leaves are quite unlike any Alder I know and I wonder if anyone can identify it? Perhaps it comes from Germany.

Corylus colurna (Turkish Hazel) - A row of these trees has been planted outside the Edinburgh University Health Centre (VC 83). They have fruited well this year and I couldn't resist picking up some of the spectacular bunches of nuts on a recent visit for a flu jab. The books show just one or two nuts in a bunch and I wonder if these trees are a special variety - and watch your head if you go past on a windy day!

Yellow Goatsbeard (aka Jack-go-to-bed-at-Noon) George Ballantyne

in the Garden (VC 85)

Tragopogon pratensis is not considered to be a garden plant but a few single flowers have occurred in my garden during the past 15 years or so. However this summer (2014) a <u>large clump</u> appeared in a lawn border, producing at its maximum up to 60 stems. Photographs are shown in both bloom and fruit, the large 'dandelion clock' seedheads being particularly attractive.

New, old, strange and puzzling in Fife wards

Sandy Ed-

& Kinross (VC 85)

For many Recorders, the mild winter produced some survivors and some new species. George Ballantyne and I were notified of a Toadflax in a local wall. It proved to be a small patch of *Cymbalaria pallida* (Italian Toadflax), and is a new record for the vice-county.

A "BioBlitz" at Loch Leven revealed a specimen of *Elodea nuttallii* (Nuttall's Waterweed), that was also found in great quantity at Kinghorn Loch, also a new record for the vice-county. A large plant of *Atropa belladonna* (Deadly Nightshade), appeared on the coastal path near the Tay Bridge. This was removed before the sweet, juicy black fruits appeared alongside the brambles! I also found a specimen in St Andrews a few weeks later; this is the first record for VC 85 since 1970.

In waste ground near the coast at Tayport, "Day of the Triffids" was brought to mind as a huge specimen of *Echium pininana* (Giant Viper's-bugloss), appeared in a patch of waste ground. This is a native of the Canary Islands, is recorded in very few sites further south and is a new record for this growing in the wild in Scotland.

[A puzzle plant, not just to me but to a few VCRs, is the specimen below. I sent a voucher specimen to Tim Rich who identified it. Look under the cover to see what it is and why a puzzle!]

Interesting Finds in those Under Recorded TetradsJones

Jane

of West Perth (VC 87)

As part of the Altas 2020 recording effort in VC 87, West Perth, Liz Lavery and myself as joint VCRs decided we would try and tackle at least 2 tetrads in each hectad which had very few or in many cases no records, but which had 100% of their area lying within the VC. This has proved an interesting exercise which is still continuing. It is easy to see why many of these areas have not been recorded previously as they can be difficult and time consuming to reach, and appear on the surface to have little of immediate botanical interest. But it has also been rewarding to get records from these areas and also to discover some rare and unexpected finds.

These have included *Juncus filiformis* (Thread Rush), a nationally scarce species, discovered on the shore of the Glenfinglas reservoir in great swathes, due to the loch level being so low this summer, *Osmunda regalis* (Royal Fern) at the northern end of Loch Ard and a new population of *Hammarbya paludosa* (Bog Orchid) above Balquhidder Glen. So the thrill of the hunt remains.

Distinguishing our native Cranberries (VC 90) ton

John Edging-

Cranberry (*Vaccinium* spp.) grows among *Sphagnum* in two sites near Tarfside in Glen Esk, Angus, about 2 km apart. One is in enclosed pasture land at about 200m O.D, the other among open heather moorland at 220m. I have only found flowering plants at the first site, and then only on two occasions, so have relied for identification on characters in Poland and Clement's *Vegetative Key*. I shall exhibit material from both sites; plants from the site where they have flowered appear to be *V. oxycoccus* while those from the second site are *V. microcarpum*. I shall comment on differences in habitat and associated species between the sites.

Rare finds in Easterness (VC 96)

Adam Fra-

ser

Two finds of particular note in Easterness (VC 96) in 2014 were *Saxifraga hirculus* and *Eleocharis acicularis*. The Marsh Saxifrage record is thought to be a new record for VC 96, and comes from a remote site in the northern Monadhliath. Nearest currently known populations are in Caithness, Aberdeenshire and Perthshire. The population itself is confined to two small flushes, some 30 metres apart, with some obvious and locally unusual basic-influence playing a part. The surrounding habitat is a large expanse of acidic blanket bog punctuated by *Sphagnum* rich flushes. Only a few flowers had survived some fairly heavy grazing, but there were in the region of 200

shoots in total. Needle Spike-rush is known to VC 96, but only a handful of records are currently evident. The species is restricted to the Spey valley, and this latest record follows suit - having been identified by Jackie Muscott, Mary Clarkson and Jean Murray in a pond near Newtonmore. Photos of Marsh Saxifrage, and a specimen of *Eleocharis acicularis* are displayed.

A survey of sub-alpine loch islets in East Inverness-shire (VC 96)

Anthony Taylor

As part of a project with *Trees For Life* and the *Scottish Wildlife Trust*, several small islets more than 500m above sea level were visited in July 2014 in order to assess their vegetation. The hypothesis was that as deer do not regularly access these islets the flora would be more akin to healthy treeline scrub vegetation, now a rare habitat in Scotland. Only one of the islets visited, Loch nam Eun islet (NH 31145 20754), had treeline scrub flora with Salix lapponum (Downy Willow), S. phylicifolia (Tea-leaved Willow) and Betula nana (Dwarf Birch) present along with other shrubs such as S. aurita (Eared Willow) and *Juniperis communis* subsp. communis (Juniper). There were also a number of small trees present; significant in an otherwise treeless landscape. Signs of deer were noted on Loch nam Eun islet, though the browsing pressure was slight enough to allow regeneration of S. phylicifolia. Other islets showed higher or equal browsing pressures on their vegetation than that of the surrounding landscape. The study gave an indication of what Scottish treeline vegetation might look like, which may be useful for organisations that are aiming to restore this habitat.

Extreme Botanising on Ben Nevis (VC 97)

Ian Strachan

The Ben Nevis SSSI supports an outstanding arctic-alpine flora of vascular plants including over 30 species and hybrids that are Nationally Rare or Scarce. Many of these are associated with steep crags and loose gullies, and large areas remain unexplored. As part of the Nevis Landscape Partnership project funded by HLF and SNH, in August 2014 a team of professional climbers worked with botanists and geologists to explore the North Face of Ben Nevis. Important new locations were found for rarities such as *Saxifraga cespitosa* (Tufted Saxifrage), *S. rivularis* (Highland Saxifrage), *S. nivalis* (Alpine Saxifrage) and *Poa flexuosa* (Wavy Meadow-grass).

Town and Country Plants on Bute (VC 100)

Angus Hannah

'Some plants prefer town life, others eschew it'. I quantify this for the plants of Bute, using monad abundance data. Ten squares are defined as urban, the rest rural. By comparing relative abundances in the two areas I calculate an

index which ranges from zero for plants not found in any urban square to 100 for those not found anywhere else. It turns out that seven is the figure for plants which are equally at home in town or country. Those with a higher index favour the urban environment, those scoring below seven prefer rural life. The urban index is useful when trying to assess local status. This is difficult, especially where historic records are sparse or absent. However, most neophytes appear in town before they spread into the countryside. An index value much above seven therefore places a question mark against the presumption of native status. It doesn't mean the plant **is** a neophyte, but the burden of proof shifts towards showing that it is not. Conversely, any fairly common plant with an index of seven or below is almost certainly native. I offer some case studies by way of demonstration of this thesis and a few anomalies.

Intermingled Plants of *Platanthera bifolia* **and** bank

Terry Swain-

P. chlorantha (Lesser and Greater Butterfly-orchids): Some Observations (VC 104)

Platanthera bifolia and P. chlorantha (Lesser and Greater Butterfly-orchids) grow side by side on a Skye croft, an area of acidic, unimproved grassland – thin soils overlying granite. The populations have been monitored for 7 years with each flowering plant marked thus allowing a direct comparison of the physical characteristics (height, spur length, leaf width and number of flowers per spike) and habitat preferences (ground conditions, sward height, nearby plants and time of flowering) of the 2 species with the environmental variables (climate, latitude) virtually eliminated. A summary of the main findings is presented. The study has also provided data about the longevity of plants of both species for which a brief summary is given from a significant amount of data.

Wester Ross (VC 105) Donald

Duncan

Glenshiel Recording Week. This week was a magnificent effort, conducted with great good humour and, for the most part, in fine weather. Over 6,500 records were collected; these included 116 new Vice-county Records (almost all 'garden escapes' contributed by Mick Crawley) & 590 records new to their hectad ('dots on the map'). They came from 45 tetrads, 34 of which were surveyed in detail – 28 of these effectively for the first time, some in hectads poorly covered even during the 1950s' Atlas fieldwork. The exhibit will offer pictures of some of the more significant finds, and comprehensive lists will be made available.

An 80-year-old mystery. Re-discovery of a Dactylorhiza traunsteineri-

oides (Narrow-leaved Marsh-orchid) specimen in the Natural History Museum herbarium collection has at last given information regarding the site where this plant was first recorded in the British Isles in 1935 — a "hill slope" above Loch Maree.

Mapping Alpine Cotula in north-west Coigach. Further fieldwork this year has proved that, although the epicentre of this potentially highly invasive Australian plant remains as previously recorded, around the Polbain/Dornie area, it has now spread in at least small quantities along most of the roadside verges throughout NW Coigach. It is postulated that wind-blown, foot- and tyre-borne seeds have been the main vectors for dispersal, the latter obviously raising concern that it is only a question of time before the plant breaks out from Coigach to infect other areas. Discussion is invited about possible control methods.

Dornoch Firth - Tain and Ardgay areas Mary Dean and Brian Ballinger **Field Meeting 2014 (VC 106)**

This recording meeting, 5 - 6th July 2014, visited the southern side of the Dornoch Firth. On the first day, we met at Fearn station car park where Brian showed us *Orobanche minor* (Common Broomrape) and *Vulpia myuros* (Rat's-tail Fescue). The rest of the day was spent on the coast by Tain. Highlights included *Ceratophyllum demersum* (Rigid Hornwort) growing in abundance; one of Scotland's coastal specialities, *Ligusticum scoticum* (Scots Lovage); *Catabrosa aquatica* (Whorl-grass) and a good number of species on the dunes including *A stragalus danicus* (Purple Milk-vetch), *Centaurium littorale* (Seaside Centaury), *Equisetum variegatum* (Variegated Horsetail) and *E. hyemale* (Rough Horsetail).

On the Sunday we met at Bonar Bridge to see *Carex recta* (Estuarine Sedge). We explored a patch of shingle recording several plants new for the VC 106 tetrad, including *Mimulus guttatus* (Monkeyflower), *Crepis paludosa* (Marsh Hawk's-beard), *Isolepis setacea* (Bristle Club-rush) and, the find of the weekend, a small patch of *Mentha requienii* (Corsican Mint), the first vice-county record. In nearby woodlands species included *Pinguicula lusitanica* (Pale Butterwort), *Goodyera repens* (Creeping Lady's-tresses), *Neottia cordata* (Lesser Twayblade) and *Trientalis europaea* (Chickweed Wintergreen).

West Sutherland (VC 108): ans surprises during 2014

Ian and Pat Ev-

Pyrola media (Intermediate Wintergreen), was discovered near Inveruplan (NC12) by Gordon Rothero; only the third recent record. A 'tattie patch' at Oldshoremore (NC25) contained Fumaria capreolata (White Rampingfumitory), not recorded since 1948. Fumaria bastardii (Tall Rampingfumitory) was found on disturbed ground at Clachtoll (NC02); the only previous record is from a 'tattie patch' nearby in 1997.

Gardens have provided other surprises. Amsinckia micrantha (Common Fiddleneck) occurred in a cabbage planter at Clashmore (NC03), which had been filled with soil from a builders' merchant. This soil also yielded Matricaria chamomilla (Scented Mayweed), Medicago lupulina (Black Medick), Reseda luteola (Weld) and Vicia hirsuta (Hairy Tare), most 'new' to VC 108. Short-lived introductions, probably from the east coast, but worth recording? Plantago media (Hoary Plantain) in a lawn at Achnacarnin (NC03) is not so easy to explain, unless it came in with seed to repair bare patches.

Finally, a garden pond at Drumbeg (NC13) was covered, in February, with a puzzling duckweed, identified by Richard Lansdown as a non-gibbous form of Lemna gibba (Fat Duckweed), together with L. trisulca (Ivy-leaved Neither has previously been noted in Highland Scotland. They may have been inadvertently introduced with water-lilies from an Inverness garden centre. L. gibba has since been found in four other ponds across the north. The Drumbeg pond also produced, later in the year, Hydrocharis morsus-ranae (Frogbit).

A Habitat Map for Scotland chan

Ian Stra-

SNH is aiming to create a detailed Habitat Map of Scotland (HabMoS) using a combination of existing habitat data and new survey. Habitats will be identified according to the European Nature Information System habitat classification (EUNIS) so that habitat information can be shared with the rest of Europe, with links to NVC and other national classifications. Data are being drawn together from many sources and work is in progress to fill gaps, including use of infrared aerial imagery and field survey in the up-The creation of the habitat map will provide a valuable tool for many purposes such as surveillance and monitoring and should prove useful for targeting botanical survey.

A New Fern for Scotland (and the UK) gan

Frank McGavi-

British Pteridological Society

In 2010 the late Ken Trewren discovered *Dryopteris pseudodisjuncta* (a fern previously known only in continental Europe) in Kirkbean Glen, Kirkcudbrightshire. However this year it has also been found at two sites on Arran by Tony Church. The find has been verified by Christopher Fraser-Jenkins, a world authority on *Dryopteris*, who now believes some herbarium specimens in the UK have been misidentified and are really *D. pseudodisjuncta*. So the hunt is on to find this fern at other sites in Scotland and elsewhere in the UK. Can you help? The fern is difficult to distinguish from other members of the *Dryopteris affinis* complex, but morphological characteristics are given in the accompanying diagrams to aid identification. Specimen fronds should be verified by the BSBI Referee for the *D. affinis* complex, Mr A.C. Pigott, Kersey's Farm, Mendlesham, Stowmarket, Suffolk. IP14 5RB. Email first to Anthony.Pigott@btinternet.com.

The Urban Flora of Scotland:

John Grace & BSS mem-

bers

Allotments - what lies within?

We present results of a botanical survey of an allotment field at Midmar, Edinburgh, comprising some 200 cultivated plots, paths, small areas of waste ground, areas of recreational use, and a boundary wall. We found 134 species of vascular plants, of which 65% are native species, 17% are archaeophytes and 17% are neophytes. We plan to extend this survey to allotment sites across Scotland, to assist in the analysis of the spread of selected neophytes, including invasive species.

Edinburgh Urban Ribbon - the Mosses and Bryophytes of the Water of Leith

David Chamberlain

A Selection of Stereo Photographs

Raymond Parks

A varied range, mainly for the purpose of encouraging other folk to have a go for themselves.

Around a dozen plant portraits, some seriously macro, plus a few examples relevant to habitat description. In the widely-used format of 4-mirror viewer handling 8-inch prints.

NASSTEC (Native Seed Science, Technology and Conservation)

Giles Laverack, Scotia Seeds

NASSTEC is a training network with seven partners from academic and seed production organisations in four countries. In the UK Scotia Seeds, the Royal Botanic Gardens Kew and the James Hutton Institute are partners in the project led by the Museo delle Scienze in Trento, Italy, together with the

National Trust for Scotland as an associate partner. It is a four year project started in May 2014 and funded by an EU Marie Curie award.

The project includes 11 PhD studentships on subjects relating to the conservation, production and use of native seeds with a particular focus on seeds for upland and alpine grassland restoration. The range of subjects includes selection of populations for restoration, seed dormancy and storage, the improvement of seed quality and regulation of native seed use. Contact Giles Laverack at Scotia Seeds giles@scotiaseeds.co.uk for more information.

An Eye for Eyebrights: Alex Twyford, The University of Edinburgh

studying the evolution of diversity in British Euphrasia

Euphrasia are a group of taxonomically complex species, with the recent origin of diversity, multiple ploidy levels, and frequent hybridization blurring species boundaries. In the UK, there are ~20 Euphrasia species, including diploids and tetraploids, and these species show marked variation in selfing rates related to flower size (small flowered selfers and large flowered outcrossers).

This project builds on previous studies, to:

Understand the evolutionary relationships between widespread ploidy groups (diploids and tetraploids), and between individual species.

Relate how population genetic diversity is affected by mating system variation (outcrossing vs. selfing).

A major limitation to this work is obtaining UK-wide samples, to ensure a good sample of genetic diversity across British species. To obtain this broad sampling, vice-county recorders and other interested plant collectors are invited to submit samples from their local recording area. Sampling kits will be made available at the meeting, which include 20 small bags of silica gel for collecting leaves and flowers, an ID kit, and collection detail form. These samples will then be used for genetic analysis, with results contributing to scientific publications on the evolution of British *Euphrasia*, and also made available through an interactive website.

Goats that jumped the garden fence:

Les Tuck-

er

ergasiophygophytes and ergastofigophytes

Wild populations of *Salix caprea* (Goat Willow) typically comprise seedlings maturing to dioecious trees with ascendant branches. For gardens, 'weeping' cultivar 'Kilmarnock', with male 'pussies', grafted onto upright \subsetneq *S. viminalis* (Osier) is preferred. Some *S. cinerea* ssp. *oleifolia* (Rusty W.) hybridity probably promotes joint compatibility. However, untended

stocks can develop catkins, cross with scions, release airborne seed and introduce alien $S. \times calodendron$ (Holme W.) seedlings: ergasiophygophytes, following Thellung (1912). Insect-carried pollen from garden cultivar to wild species produces occasional procumbent seedlings and pendulous branches; also hybrids like $S. \times reichardtii$ (Reichardt's W.): ergastofigophytes, adapting McCloughlin and Chocholousková's usage for *Primula* (Primrose), (*BSBI News*, April 2013), just a jot or tittle different. *S. hastata* (Halberd-leaved W.) is typified by Continental boreal-montane populations; compact δ cultivar 'Wehrhahnii' is popular here for rock gardens. So, occasional records on coasts and derelict sites may be ergasiophygophytes or ergastofigophytes. Finding something similar among seedlings from an open-pollenated ς *S. arbuscula* (Mountain W.) in my garden, a look-alike hybrid was inferred. Photos, herbarium and potted specimens are exhibited.

Plant Families Workshops 2014

Faith Anstey

Building on the success of our first year, in 2014 we held three workshops – in conjunction with Plantlife – in Glasgow, Edinburgh and St Andrews. We had 65 participants, predominantly young people with a botanical element in their studies, employment or volunteer work. The day's programme covered theoretical and practical classroom work in the morning and fieldwork in the afternoon. The evaluation summary shows that grouping by experience paid off because, regardless of previous experience, 96% of participants felt the course was targeted just right for them. They were also immensely impressed by the enthusiasm, friendliness and expertise of the tutors. This year we produced the enhanced Guide to Common Families, together with the Flowchart to Families, as a field-friendly booklet: pocket-sized, ringbound and weatherproof. This was so much in demand that our supply was soon exhausted: for next year we plan an improved version which may be offered for sale. The workshops were followed up with a series of half-day field meetings for participants (and others) which were extremely popular and increased the field skills of all concerned. For next year we are considering weekend events – including one in Inverness with workshop on the Saturday and field meeting on Sunday.

The BSBI Panel of Referees and Specialists

Jeremy Ison

One of the strengths of the BSBI is its panel of specialist referees. Members have access to national and, in many cases, international experts in their particular plant groups. The work of these volunteers helps maintain the quality of BSBI projects. A current challenge is to provide continuity in an environment where taxonomic and identification skills are not as highly regarded as a serious academic discipline as they were in the past.

The poster shows some statistics relating to the Panel and there is a short questionnaire to investigate the extent of usage of the system by members.

Other displays

Botanical Society of Britain and Ireland (BSBI)

Jim McIn-

The BSBI is the leading organisation for amateur and professional botanists in Britain and Ireland.

We promote the study of, and interest in, the British and Irish vascular plant flora.

We support and encourage, carry out and participate in research into the taxonomy, ecology, biogeography and conservation of our flora.

If you are not already a member of the BSBI - and would like to support our work – please join us!

Pick up our membership leaflet and ask me, Jim McIntosh if you have any queries about joining. A range of leaflets, including the most recent *BSBI* Annual Review and BSBI News are available to take away; and recent issues of the New Journal of Botany and other recent BSBI publications can be perused. I would be pleased to supply promotional material to anyone who plans to go to events, such as conferences or workshops, this winter that potential new members might attend.

Botanical Society of Scotland (BSS)

Jenny Far-

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British Pteridological Society (BPS)

Frank McGavi-

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Field Studies Council Scotland (FSC)

Chloe Denerley

Dr Chloe Denerley will give a brief overview of the work of FSC Scotland, which is part of the Field Studies Council (FSC), a charity which runs 18 Centres across the UK and aims to 'bring environmental understanding to all through first hand experiences'. This presentation will focus on the work we are undertaking at FSC Millport on the Isle of Great Cumbrae, which, along with FSC Kindrogan near Pitlochry, are our two Centres in Scotland.

There has been a Marine Research Station on Millport since 1897, but the FSC has only recently taken it over, making FSC Millport both our oldest and newest Centre. While we continue to offer the highest quality facilities to university groups, Chloe will outline developments across the site which will allow primary and secondary schools, as well as adult learners, to make

the most of all that the Centre and Great Cumbrae have to offer. With increasing pressure on terrestrial and marine environments, there has never been a better time to see the opportunity for outdoor, environmental learning being brought to a wider audience.

Perthshire Society of Natural Science (PSNS)

Alistair God-

frey

National Tree Collections of Scotland frey

Alistair God-

Plantlife Scotland

Robin Payne & Liz

Lavery

Scottish Natural Heritage (SNH) Smyth

Sarah

BSBI Scottish Officer Report for 2014

Jim McIntosh celebrated 10 years in the post of Scottish Officer in November 2014. Co-incidentally SNH funding for the support post expired, so a new bid was prepared, submitted and was ultimately successful after much discussion. It is for a 3.4 year period – until March 2018. While less than bid, it is more than the previous grant, which in these difficult financial straitened times is very satisfying.

We were asked to prepare an estimate of the notional value of the work undertaken annually by BSBI volunteers in Scotland. (conservatively, I think) at £230,000 and there is no doubt this was a key factor in securing such a good deal from SNH. I am very grateful to both SNH and to all those BSBI volunteers.

Site Condition Monitoring

The other factor which greatly helped the funding bid is the BSBI's continued contribution to vascular plant Site Condition Monitoring. In the early part of 2014, SCM Reports were completed, checked and forwarded to SNH for four sites surveyed in 2013; they were Cove, Dalcroy, Sands of Forvie and Spey Bay SSSI. During 2014 the BSBI Scottish Officer and volunteers monitored a further five sites - Arthur's Seat Volcano, Craighall, Derskelpin Moss, Glen Strathfarrar, Milton Wood, and reports are now in draft for those sites. We also assisted SNH with surveys of three other sites Ben Lui, Endrick Mouth and Islands and Ben Nevis (as part of the Northface project). Again, thanks are due to all the contributing BSBI volunteers.

A copy of all vascular plant SCM reports completed to date has been received from SNH. Currently I am validating a collation of SCM target species records, before arranging to import into DDb and forward to NBN, on behalf of SNH.

VCR Network Support

In January, a questionnaire on Atlas 2020 progress was sent out to all BSBI Recorders. 39 out of the 41 Scottish VC Recorders responded and that initiated a useful dialogue with many vice-counties. At least eight will need a fair bit of support to achieve full hectad coverage for Atlas 2020. We asked specifically what help would be required and one of the major issues highlighted was the need for joint (or successor) Recorders.

We therefore advertised joint recorder vacancies in Easterness (VC 96), to help Adam Fraser, and Dumbarton (VC 99), to help Pam Murdoch. Sadly no-one responded to the Dumbarton advert, but we have made a very promising contact in Easterness. Later in the year we advertised for two further vacancies, this time specifically for Atlas 2020 recording, in South Ebudes (VC 102) and East Lothian (VC 82). This lead to the recently-ratified appointment of Simon Smart, as Atlas 2020 Recorder for Jura, which will be a time limited appointment, with Malcolm continuing as the main point of contact. Although many young members expressed interest in East Lothian (VC 82), unfortunately none were sufficiently confident to undertake the role. I'm planning to set up a local BSBI Botany Group in the Lothians to nurture these people and help with Atlas recording locally.

Two support newsletters were prepared and sent to Scottish Recorders during the year, available on the main website's BSBI Scotland webpage.

VCR Network Support: Andy Amphlett

Andy Amphlett volunteered to work for the BSBI for 45 days in 2014. He agreed to provide support to recorders in the north-east of Scotland, including recording in under-recorded areas like Easterness, and to help develop guidance for the BSBI DataBase (DDb).

His main achievement during the year was to devise and manage a project that promoted recording by BSBI volunteers in remote parts of the Cairngorm National Park. He also successfully bid for project funds. Consequently, a total of 20,000 high quality records were added to the DDb and made available to the CNP Authority. It is hoped to repeat this, or a similar project, in 2015.

Andy also prepared user guidance for the BSBI DDb and made over one hundred posts on a variety of issues on the DDb Message Board; and has produced spreadsheets that help recorders identify gaps in their Atlas 2020 hectad and tetrad coverage. I recently met Andy to thank him for his splendid contribution, and to agree an expanded recorder support programme in 2015.

Rare Plant Registers

During 2014, Angus Hannah published separate Rare Plant Registers (RPRs) for Arran and Bute in Clyde Isles (VC 100) and Barbara Sumner published an RPR for Midlothian (VC 83). Detailed reports appear in the *BSBI Yearbook 2015*.

Meanwhile, Jane Jones and Liz Lavery have been busy drafting an RPR for West Perthshire (VC 87) which is very nearly ready to publish. Chris Metherell was contracted to help Chris Miles and Dave Lang with their RPRs for Dumfriesshire (VC 72) and Ayrshire (VC 75) respectively.

MapMate Support

Work by Martin Rand to redraft and expand The BSBI MapMate Handbook was completed. Martin Harvey updated BSBI MapMate support website and uploaded the Handbook, along with additional training videos and user queries and an updated version of the BSBI Data Entry Guidelines.

Data

A few years ago we set up a project to digitise the back-log of paper records in Scotland. Unfortunately, a number of the resulting Computerisation Project datasets got 'stuck in the system'. In 2014 a concerted effort was made to extricate, validate and upload these datasets to the DDb. Andy Amphlett led on work to upload datasets containing the Mar Lodge Recording Week (VC 92) and the North Aberdeenshire (VC 93) records. The Scottish Officer led on work to get the much delayed Dunbartonshire (VC 99) dataset cleaned-up and forwarded to the DDb, where it now awaits uploading. He also imported the West Lothian (VC 84) data into the Recorder's MapMate and uploaded it to the DDb.

In addition, two datasets of notable species records, one from Forest Enterprise Scotland's Open Habitat Survey, and the other from visiting BSBI members, were validated and uploaded to the DDb.

Atlas 2020 Recording

Eighteen botanists enjoyed great weather and a lack of midgies during the 2014 Scottish Recording Week based at Glenshiel Lodge. While Ian Strachan led daily forays into the Glenelg peninsula in Westerness, the major-

ity of the survey work was organised by Duncan Donald and Jim McIntosh in the southern part of Wester Ross. A parallel Recording Week was organised by Angus Hannah on Arran to utilise the many disappointed members who came late and found Glenshiel fully booked.

Robin Payne, Recorder for Angus (VC 90), organised a very enjoyable three-day recording meeting based in Tarfside in July, which I attended. The records made a valuable contribution to the Recorders' datasets and to the Cairngorm National Park Project (see above).

Planning work began in 2014 for Recording Weeks in July 2015 on the Northern Isles of Shetland and in the south of Ayrshire, where Angus Hannah is helping local recorders, Dave Lang and Gill Smart.

Training

We undertook more training in 2014 than ever before, thanks to a group of enthusiastic volunteer leaders and tutors (the BSBI Outreach Group) who organised three Plant Families Workshops for beginners. A total of 67 beginners participated in the workshops which were held in Edinburgh, Glasgow and St Andrews. A dozen follow-up evening and short-day meetings were held specifically for those on the workshops. The feedback was very positive. Particular thanks are due to Faith Anstey and Jenny Farrar.

Two field meetings were organised which specifically welcomed beginners and folk who had never been on a BSBI field meeting before – at Kippenrait and Ardtalnaig. Three "Introduction to" days to Sedges, Grasses & Ferns were organised by the Scottish Officer with help from Mike Porter, the Sedge Referee, and BSBI & BPS members. They complemented two field meetings for improvers lead by volunteers. For more advanced folk, a Grass ID weekend workshop at Melrose in July was organised and led by referee, Arthur Copping, and Chris Metherell led two *Euphrasia* Study Group days at RBGE.

BSBI Meetings

Much work was done with the help of BSBI and PSNS volunteers to organise the *BSBI Annual Summer Meeting* in Dunkeld in June. Ninety members from across Britain & Ireland enjoyed a day of talks followed by two days of field meetings to a wide range of Perthshire botanical localities. As usual, I helped the Scottish Committee with the BSBI/BSS Scottish Annual Meeting (SAM) at RBGE in November. Presentations were given to help launch *Atlas* 2020 – the final five years at this meeting and also at the AEM in Leicester in November, and earlier in the year at the Irish Members' Conference.

I helped Claudia Ferguson-Smyth organise the 2014 BSBI Photographic Competition. The photographic entries were displayed at the SAM and the Leicester AEM. The winning photographs adorn the front and back covers of *BSBI News*:128 and other images are published in this Newsletter. Thanks are due to Claudia and to Paul O'Hara of Summerfield Books for providing the prizes. (Please see the article on page 58).

BSBI Publicity

Publicity work in 2014 culminated in another rare appearance of the BSBI at Scottish Birdfair in May. However the Botanical Survey of the north face of Ben Nevis, which we were intimately involved with, also got a good airing on national media, including BBC Scotland. The BSBI Scotland website was more frequently maintained that ever before and the Scottish membership email group was used regularly to promote botanical activity in Scotland.

Networking

In 2014, I participated in SNH's Sharing Good Practice workshop on Citizen Science, where it was pleasing to hear so many references to BSBI data, and BES/CIEEM's Protecting Scotland's Biodiversity Conference on monitoring. It was with great pleasure that I represented Scotland at Kew at an event to celebrate David Pearman's contribution to the BSBI and to Launch the English Red Data List.

Jim McIntosh, BSBI Scottish Officer, March 2015

Scottish Vice-county Collated Reports for 2014

Here is a collation of annual reports for 2014 that Scottish Recorders have sent me. It is a fascinating account of botanical endeavour by BSBI Recorders and members across Scotland, which leaves me feeling truly humbled. I am sure that recorders and members alike will be interested to read of these achievements.

Jim McIntosh, BSBI Scottish Officer

Dumfriesshire (VC 72), Chris Miles

Recorded in 31 tetrads or monads in 2014. In all 5,520 records were made and amongst them there were a number of significant new finds including:

First VC records for *Alchemilla glomerulans* (Clustered Lady's-mantle) and *Dryopteris expansa* (Northern Buckler-fern). Jeremy Roberts had noted them in 2013 on a visit to the NTS enclosures on White Coombe. Derek Ratcliffe noted a fern probably of this species in 1987 on another part of the Moffat Hills but this was not confirmed at the time.

A second VC record for *Chenopodium polyspermum* (Many-seeded Goosefoot) on gravels in the River Nith.

New tetrad record (NT20D) for *Thalictrum alpinum* (Alpine Meadow-rue).

Refound *Carex aquatalis* (Water Sedge) on the River Nith, for the first time since 1976. It was subsequently also refound in two places lower down the river; one site, with *Bidens cernua* (Nodding Bur-marigold), where it was last recorded in 1896.

Refound Orobanche rapum-genistae (Greater Broomrape) at Maidenbower Craigs.

A new *Salix* hybrid confirmed by the referee was: *Salix* x *meyeriana* Rostk. ex Willd. – (*S. euxina* I.V.Belyaeva x *S. pentandra* L.) first VC record.

Casuals: A second VC record and the first since 1991 for *Crassula helmsii* (New Zealand Pigmyweed) on an old coal bing and a second VC record for *Catapodium rigidum* ssp. *rigidum* (Fern-grass) in a disused quarry.

Other activity: Led a Plantlife walk on the Caerlaverock Merse in July and gave two talks to local Wildlife Societies at Eastriggs and Lockerbie. A Rare Plant Register should be finished in 2015.

Kirkcudbrightshire (VC 73), David Hawker

Collected and digitised just over 7,000 records in 2014, of which there were:

Several New County Records, most notably: *Spiranthes romanzoffiana* (Irish Lady's-tresses), *Filipendula vulgaris* (Dropwort) and *Callitriche palustris* (Narrow-fruited Water-starwort)

Many new hectad records, including *Pyrola media* (Intermediate Wintergreen), *Carex paniculata* (Greater Tussock-sedge), *Carex acuta* (Slender Tufted-sedge), *Umbilicus rupestris* (Navelwort) and *Cirsium heterophyllum* (Melancholy Thistle).

Other activity:

Formed the Kirkcudbright Botany Group and organised eight meetings between March and October. The group has a total membership of 42 and the meetings were attended by 10-12 on average including Nick Stewart who has recently arrived in Kirkcudbright. The group collected 1500+ records from eight sites, including a few new county records, and they have been sent to the local Environmental Records Centre (ERC). Consequently we have got three new recruits to Atlas 2020 recording. One extensive sand dune system severely eroded by previous winter's storms was re-surveyed to assess damage to plant populations.

Led botany groups at two BioBlitzes organised by ERC. Plant records to ERC and MapMate.

Updated the MOD Kirkcudbright Training Area Rare Plant Register.

Almost completed the Kirkcudbrightshire Axiophyte list, after consultation with Nick Stewart and the Local Biodiversity Action Plan.

Extracted data from several local wind farm applications that including several new hectad records from reliable recorders and ecologists.

Wigtownshire (VC 74), Alan Silverside

Due to poor health very little recording was done in 2014. However I did manage to visit the two least recorded hectads in the late summer, significantly improving the post 2000 totals, and making other incidental records. My most notable find was *Parapholis strigosa* (Hard-grass), by pools on cliffs just south of Portpatrick, first record from the western (Rhinns) coast. Hopefully 2015 will be a much more productive year - with improving health, retirement and cheaper petrol!

Ayrshire (VC 75), Dave Lang

Our small recording group (of three) adopted a more strategic approach in 2014. We organised recording days throughout the season to target tetrads with few or no post 2000 records. We also compiled a number of other more ad hoc lists for various sites and locations. But that is about as much as our jobs and other commitments allows us to do. Continuing at this rate we would almost certainly fail to obtain adequate Atlas coverage by 2020. It is therefore somewhat encouraging that we have a full recorders' week in the Vice-county to look forward to in 2015.

The recording carried out was none-the-less rewarding. We obtained new county records for a number of taxa, including *Tilia cordata* (Small-leaved Lime) and *Hypopitys monotropa* (Yellow Bird's-nest). The latter was a particularly welcome find on an old bing site that had already proved itself to be one of the County's botanical gems even before that find. We have suggested to the planning authority that the site is recognised and protected as a Local Nature Conservation Site.

Work is progressing well with the draft Ayrshire Rare Plant Register. I am adding the detail for the species alphabetically to a 'skeleton' provided by the BSBI, and have reached the letter 'R' so far. It will therefore soon be finished and we will then need to decide whether to upload to the BSBI website straight away or await the results of the 2015 site (re-)visits that are planned for 2015.

Renfrewshire (VC 76), Keith Watson

Only a very limited amount of recording took place in 2014. In total, 1,000 new field records have been added to the database. It is disappointing that during the first full season since the *Flora of Renfrewshire* was published no 'new' records were received. I would greatly appreciate it if local BSBI members would contact me and offer to help with Atlas 2020 recording.

Lanarkshire (VC 77), Peter Macpherson

Recording cards for thirty-four 1 km squares were completed as a result of 30 field days in Lanarkshire during 2014. The records have all be entered in MapMate and sent to Bob Ellis. A dot map has been produced which shows all the 1km squares in which recording has been done in the VC since 2010. This gives an indication of where further recording is required for Atlas 2020. The text for a 'Flora of Lanarkshire' is with a publisher.

Selkirk & Roxburgh (VCs 79 & 80), Rod Corner & Jeff Waddell

Jeff Waddell has been recording tetrads diligently throughout the two vice-counties, covering about 20 during the year and collecting about 3,350 records in total. Several of these tetrad recording days involved taking out small groups of local beginner/improver botanists (between 1 and 4 others) for tuition in botanical identification. Most of the participants work in the nature conservation sector including a countryside ranger, local authority ecologist, forestry commission ranger and retired SNH area officer.

Rod Corner has followed up records of some of the more local species. Michael Braithwaite completed an impressive fine scale study of the Flora of Hawick reported in *BSBI News* 128:16-19. A very successful grass identification weekend was held at the Whitlaw Mosses NNR and by the Tweed at Newtown St Boswells in July, led by Arthur Copping and Jim McIntosh. In total about 10,000 records were collected from all sources and digitised during 2014; the bulk of which were from Roxburghshire with only about 600 records from Selkirkshire.

Berwickshire (VC 81), Michael Braithwaite

Recording: Seventy-one records were submitted by recorders other than myself and were entered in MapMate. These included a first VC record for *Orobanche alba* (Thyme Broomrape) by Robin Cowe, an excellent colony of 40 flowering spikes. I re-determined one herbarium specimen to yield a first VC record for *Allium roseum* (Rosy Garlic) by Luke Gaskell. I revisited the site in the early spring and leaves were found which confirmed that it was not *A. carinatum* (Keeled Garlic) as previously determined by me. I did no other fieldwork in VC 81.

A short Flora of Berwickshire: was published privately as a hardback book in full colour in 2014. Feedback has been most gratifying. A few copies are still available for sale.

Berwickshire Botanical Site Register (BBSR): was updated in 2014 using an excel format.

Archiving: I am in the progress of indexing and otherwise preparing Berwickshire paper records for commercial scanning. I plan to have scanned all field cards and associated route maps, many site reports and similar material and also selected literature of a more general nature. I have requested

input from the Scottish Officer re criteria for herbarium sheets to be useful.

Other: I contributed various articles to the *History of the Berwickshire Naturalists' Club* and *BSBI News*; exhibited at the Scottish Annual Meeting and gave a lecture to the Melrose Literary Society.

Retiral: I will retire as Recorder at 31 December 2014 as I have no plans for further fieldwork or research relating to Berwickshire. I have indicated my willingness to carry on the data inputting of records submitted to me for a limited period and I am always glad to identify specimens submitted.

East Lothian (VC 82), Helen Jackson

I didn't manage to do so much recording in 2014, but continued a steady trickle of maintenance: receiving and checking records, replying to queries, allocating squares to volunteers, exchanging information with neighbouring Recorders and TWIC, attending Scottish Annual Meeting and TWIC Recorders' Conference, buying relevant new publications, discussions with Jim McIntosh (BSBI Scottish Officer). Alan Silverside has continued to add records to MapMate. A current problem is that records digitised by other routes need to be brought back to MapMate, enabling us then to have a clearer picture of recorded monads and under-recorded hectads.

A substantial set of valuable, verifiable VC 82 records was extracted from iSpot by Alan and added to MapMate; including a notable new record for *Anacamptis pyramidalis* (Pyramidal Orchid) and a large population of *Parentucellia viscosa* (Yellow Bartsia), new to the vice-county but no doubt introduced with grass seed. One excellent photograph alerted us to the fact that a *Lycium*, long in the VC records as *L. barbarum* (Duke of Argyll's Teaplant), is actually the rarer *L. chinense* (Chinese Teaplant). We verified this in a late season visit, also finding the Lycium powdery mildew, *Arthrocladiella mougeotii*, seemingly new to Scotland. With care, iSpot can be a valuable source of records, and of recorders.

Midlothian (VC 83), Barbara Sumner

The field season was blessed by wonderfully hot, sunny weather. Thanks to enthusiastic recorders, 11,254 records were collected. These have been entered into MapMate and sync'd to Bob Ellis.

Particularly notable in 2014, were records of species not seen for many years in VC 83 including: *Carex spicata* (Spiked Sedge) at Arthur's Seat (previous record 19th century), *Malva parviflora* (Least Mallow) at Saughton Mains allotment (previous record 1968), *Reseda alba* (White Mignonette) at Musselburgh (previous record pre-1934), *Persicaria campanulata* (Lesser Knotweed) near Nine Mile Burn (previous record 1943) and *Picris hieracioides* (Hawkweed Oxtongue) at Forkenford (previous record pre-1970).

The Rare Plant Register (RPR) was completed in late March and published online. In addition, 40 copies were printed. Of these, 20 were distributed as complimentary copies, one was kept by the VC recorder and 19 were available for sale in aid of BSBI funds. Four remain for sale (£10 each).

A web page was set up for VC 83 by Alex Lockton, for which material was supplied by the VC recorder. The RPR and other documents are linked to this web page.

West Lothian (VC 84), Jackie Muscott

VC 84 is a small but varied vice-county and is recorded in monads. After a couple of years of relative inactivity due to health problems the recorder managed to visit 29 scattered monads with few or no post 2000 records (and incidentally added records from a dozen other squares). These records are currently being entered in MapMate by my new volunteer, Katherine White. There still remain a few scattered squares to be dealt with, but most now have a decent number of post 2000 records.

Interesting vice-county discoveries include the first record of *Apium inundatum* (Lesser Marshwort) since 1934, and a row of trees identified as *Alnus japonica* (Japanese Alder) planted on a newly developed industrial estate.

Fife & Kinross (VC 85), George Ballantyne & Sandy Edwards

2014 was a good recording year, after which we just have ten tetrads to survey before all hectads will have at least five well-recorded tetrads. There were two new v-c records: *Elodea nuttallii* (Nuttall's Waterweed) and *Cymbalaria pallida* (Italian Toadflax) and an interesting casual, *Echium pininana* (Giant Viper's-bugloss). A number of other rarities were re-recorded including: *Berula erecta* (Lesser Water-parsnip), *Atropa belladonna* (Deadly Nightshade), *Ceratophyllum demersum* (Rigid Hornwort), *Potamogeton x angustifolius* (Long-leaved Pondweed), *Senecio inaequidens* (Narrow-leaved Ragwort), *Juncus filiformis* (Thread Rush) and *Dianthus deltoides* (Maiden Pink).

Other activity by Sandy:

Lead botanical groups on three BioBlitzes. Helped lead two excursions for National Trust for Scotland staff, tutored beginners at the St Andrews BSBI Plant Families Workshop and university students at a Kindrogan weekend.

Participated in various BSBI & PSNS field meetings including a *Euphrasia* Workshop.

Exhibited a poster at the BSBI Scottish Annual Meeting.

Participated in BSBI Outreach and BSBI Scottish Committee meetings.

Gave the Annual Lecture to Friends of the St Andrews Botanic Garden on the work of the BSBI in Fife. (This resulted in two botanists volunteering to help with recording).

We have also been busy digitising the records that George made in west Fife

from 2000-2008. This is a time consuming task as they were recorded at 5x5km resolution and we are retrospectively upgrading the sites to at least tetrad (2 x 2km) resolution.

Stirlingshire (VC 86), Philip Sansum & Ruth McGuire

Recording: We collected 1,939 records in 2014 - all of which are now in MapMate and in the DDb. Most were made by the VCRs or resulted from the field meeting run by Ruth McGuire and Angus Hannah. Philip Sansum returned to live in Scotland in November and hopes to get much more recording done in 2015.

As a result of a call to local BSBI members for data we also received c.1500 2011/12 records from Roy Sexton. They were from 'Bioblitz' events held at Stirling University.

A few 2014 botanical highlights:

Vicia tetrasperma (Smooth Tare) was found in undeveloped grassland on an industrial estate near the Forth. This may be the first record for VC 86 and may well be native. Melica nutans (Mountain Melick) & M. uniflora (Wood Melick) first records for hectad NS69. Linaria purpurea (Purple Toadflax), new record for NS77 and 1st post 2000 VC 86 record. Chrysosplenium alternifolium (Alternate-leaved Golden-saxifrage), first record for NS77. Scrophularia auriculata (Water Figwort) was found in a new hectad in the Endrick valley. Carum verticillatum (Whorled Caraway), a new site and hectad in the county in an unimproved wet meadow, far from its main distribution in VC 86 around Loch Lomondside.

Aquatics: A tentative start was made on the challenge of recording aquatics, which resulted in the first post 2000 county records for *Potamogeton alpinus* (Red Pondweed) and, in a previously unrecorded 10km square, *Elodea nuttallii* (Nuttall's Waterweed).

New Webpage: The aim of the new page is to encourage plant study and recording in the county and, in particular, to encourage people to contribute to the Atlas 2020 fieldwork. Please take a look!

West Perthshire (VC 87), Liz Lavery & Jane Jones

We visited approx 60 tetrads and collected 6,200 records. Many of these tetrads had no or very few records. We had three nice finds which always add to the pleasure of recording: *Juncus filiformis* (Thread Rush), *Osmunda regalis* (Royal Fern) and a new site for *Hammarbya paludosa* (Bog Orchid). *Lathraea squamaria* (Toothwort) was surveyed in Dollar Glen and is doing well.

Work continues with a draft RPR, hopefully to be completed shortly. Both Recorders helped with the Plant Families days organised by Faith Anstey.

Mid-Perthshire (VC 88), Alistair Godfrey & Jim McIntosh

AG: Field work was undertaken to improve understanding of Taraxacum

(Dandelions). Specimens were photographed and pressed. Most of this was carried out with Dr. Leslie Tucker, who also attended John Richard's *Taraxa-cum* workshop in Bangor.

Clarified position of *Trichophorum* (Deer Grass) on Tulach Hill with records determined by Jeremy Roberts, providing several locations for *T. cespitosum* & some for *T. x foersteri* as well as presence of *T. germanicum*. Also sampled several ponds in the area for charophytes.

Visited site, initially with Tony Church, to look at the *Dryopteris affinis* complex, with which Tony is very familiar. *D. borreri* is mainly in woodland; *D. cambrensis* is mainly upland, either in shade or in the open; and *D. affinis* s.s. is the rarest, requiring the greatest humidity and restricted to around 100m and or below. New sites were discovered for *D. affinis* s.s. and its distribution across the v-c is now better understood.

Provided field excursions for BSBI members and other botanists through a programme provided by the Botanical Section of the Perthshire Society of Natural Science, including leading one excursion on *Rosa*, with specimens pressed and determined by Roger Maskew.

JWM collected and digitised 3,700 records in the v-c – some at tetrad but most (85%) at monad resolution or better. A concerted effort was made to get to high points in otherwise low hectads and low points in otherwise upland squares. This strategy led to many new hectad records and records for species not recorded for a long time. The remote Munro, Meall Buidhe, near Loch Rannoch, was particularly productive; it is at the corner of four hectads and the highest point in three of them of which two had little other high ground!

East Perthshire (VC 89), Martin Robinson

3,503 records were made during the year, slightly below the mean for the last 10 years of 3,748. Most of these were within 20 main tetrads. Apart from those covered by the VC recorder, Faith Anstey revisited four that she had recorded in 2013, Jim McIntosh recorded one for the Cairngorm National Park recording project, one was covered by the PSNS, and some systematic recording was carried out in four tetrads during the BSBI Annual Summer Meeting based at Birnam. Six tetrads were recorded within the Cairngorm National Park for the CNP recording project.

The best discovery during the year was of *Callitriche palustris* (Narrowfruited Water-starwort) at Marlee Loch by Nick Stewart during the Annual Summer Meeting. This was a new VC record, and only five other sites are recorded in Scotland. A second VC record was of the rose hybrid *Rosa mollis* x *R. sherardii* (fxm) found in Glen Brerachan and confirmed by the referee. *Hieracium subcrocatum* (a Hawkweed) was recorded for the first time since 1892. Some *Taraxacum* (Dandelion) specimens still await identification. A very strange record was of a single plant of *Phyteuma spicatum* (Spiked Rampion) at the Soldier's Leap view-point in the Pass of Killiecran-

kie, found by NTS staff.

Apart from regular tetrad recording and participation in the Annual Summer Meeting the other main event was Site Condition Monitoring in Craighall Gorge and Milton Wood, with Jim McIntosh and Les Tucker. The main target species, *Polygonatum verticillatum* (Whorled Solomon's-seal), was refound in its three sites in Milton Wood but has disappeared from one of its three sites in Craighall Gorge.

A batch of 60 records was submitted to the *New Journal of Botany* (NJB) for publication, including 22 *Taraxaca* from 2013.

Kincardine & North Aberdeenshire (VCs 91 & 93), David Welch. General recording across both vcc was the main activity. A batch of 16 new records was sent off to Mike Porter for publication in the NJB as a result of this and several months' recording in 2013. Included was a find of *Dipsacus strigosus* (Yellow-flowered Teasel), which had never previously been recorded in Scotland; this species has most of its few UK occurrences around Cambridge where it is believed to have escaped from the Cambridge Botanic Garden.

Digitised records from both my vcc reached DDb, via MapMate and Bob Ellis.

I led a one-day field meeting for SWT centred on Haddo House. I did the biannual monitoring of a Cabrach population of *Saxifraga hirculus* (Marsh Saxifrage), finding more flowers than previously.

I produced a short article on species extinction rates in VC 91 for the *BSBI Scottish Newsletter*, and have already submitted an article for the 2015 *Scottish Newsletter*.

A considerable amount of time was spent on advising on the suitability of sites for the Aberdeenshire SINS list (Sites of Interest to Natural Science) with regular meetings in council offices, and I also attended two meetings at the Hutton Research Institute when several local botanists drew up a list of species to be protected in the region.

Non-local activity

A visit was made to confirm the presence of a population of *Myosotis* x bollandica (M. secunda x M. stolonifera) in flushes in VC 78, and maps were made of the hybrid and its parents there; a report was sent to Luke Gaskell, the Peebles recorder. Several specimens came to me to determine as the *Myosotis* (Forget-me-not) referee. I hunted for brambles in several Scottish vice -counties, and reported the finds to Alan Newton and Rob Randall.

South Aberdeenshire (VC 92), Ian Francis

Most recording effort in VC 92 during 2014 was focused in the Cairngorms National Park, with some 4,306 records collected via Andy Amphlett's CNP project. Many of these came from Eric & Aileen Meek. 8,753 older records for the v-c from the North-East Scotland Biological Records Centre

(NeSBReC) were imported, again coordinated by Andy Amphlett. These mostly related again to the western half of the vice-county. Elsewhere, some 400 other records came from outside the Cairngorms NP area, during 2014. The eastern half of the vice-county remains a top priority for more thorough coverage for the remainder of the Atlas recording period. A wide range of records from earlier years was also collated, ready for import to the DDb.

Several requests from Environmental Consultants were processed, and a contribution made to the local register of notable plants which is being developed for use by Aberdeenshire Council. The VC 92 web page on the BSBI web site was updated, and communication maintained and developed with the very small number of local plant recorders.

Banffshire (VC 94), Andy Amphlett

5,501 records were collected in VC 94 in 2014. The great majority (85%) were made by Ian Green (VCR for VC 95), who carried out surveys in the eastern part of the vice-county; especially useful to me as that is the area most distant from my home. All records were supplied to BSBI via Map-Mate sync, and are on the DDb. Every effort was made as the season progressed to check record grid references against the vice-county boundary, and as of 22nd January 2015, all records (except two) have been confirmed / validated on the DDb.

Records were made of 537 species and hybrids, in 25 hectads, 107 tetrads and 180 monads. 302 new hectad records were made (of 242 taxa) and 2,607 new tetrads records (of 490 taxa). New tetrad records accounted for 47% of all records. *Corallorhiza trifida* (Coralroot Orchid), Nationally Scarce, was recorded in a new hectad (NJ46).

Most of my field work in 2014 was spent recording in VC 96, which is less well recorded than VC 94, and in facilitating a very successful project recording plants in the Cairngorms National Park. While I only collected 888 records in VC 94, I collected 6,036 in other vcc, in particular 95, 96 and 97. I am fairly close to completing validation of all VC 94 records on the DDb. It is interesting to note that most of the problem records are from pre-2000, and that post 2000 MapMate records are generally much more reliable.

Moray (VC 95), Ian P Green

A good amount of recording was done in Moray in 2014. Andy Amphlett arranged recording in the CNP area of the v-c. I did recording scattered around the v-c. Also one local botanist did recording in four monads and there were a handful of records by other botanists. In all 7,303 records were made in 2014 for VC 95.

One species native to the UK was found new for VC 95 in 2014 - *Scrophularia auriculata* (Water Figwort). However I do not believe it is native locally – it is more likely to have arrived amongst dumped garden waste.

I organised six local botany meetings. Three were held in Moray, two in Banff and one on the boundary between the two counties! The aim of these meetings was mainly to record, but was also a chance to show people interesting plants and to attempt to refind interesting records (which we failed to do this year!). The number of people attending the meetings varied from 8 to 19.

Westerness (VC 97), Ian Strachan & Ian Bonner

IB - Atlas recording week at Strontian in June and Ardnamurchan in August, focusing on poorly recorded squares. c. 2,000 records made and entered in MapMate by IB.

IS - Atlas recording in various new and remote areas, notably canoe/camping trips to islands near Arisaig and up Loch Morar, also visits to Inchree & Glen Spean. 2,200 records collected.

BSBI recording week at Shiel Bridge – jointly with VC 105 – to be reported separately. >3,000 records gathered from 37 monads, including many previously unrecorded squares. Majority of records entered in MapMate by IB.

Ben Nevis North Face project, in August – see separate report. Highlights include new locations for *Saxifraga cespitosa* (Tufted Saxifrage), *S. nivalis* (Alpine Saxifrage), *S. rivularis* (Highland Saxifrage) and *Poaflexuosa* (Wavy Meadow-grass) as well as *P. alpina* (Alpine Meadow-grass), *Veronica alpina* (Alpine Speedwell), *Cerastium nigrescens* (Arctic Mouse-ear), *C. cerastoides* (Starwort Mouse-ear), *Carex saxatilis* (Russet Sedge) and *Sibbaldia procumbens* (Sibbaldia).

Various records/lists received from other botanists notably Jenny Ford, Andy Amphlett (in CNP), Jim McIntosh and Faith Anstey. Jenny entered over 2,000 of her records from 2013-14 into MapMate.

New sites for *Spiranthes romanzoffiana* (Irish Lady's-tresses) from Kilchoan and Loch Morar reported.

Talk given on Ben Nevis North Face project at SAM (also EUNIS manual), also to Lochaber Geopark group.

Main Argyll (VC 98), Carl Farmer

Not a lot of botanical excitement this year but about 7,000 records were added!

Dunbartonshire (VC 99), Pam Murdoch

Recording progressed slowly; another 40 or more monads now have records with additions to others. *Carex magellanica* (Tall Bog-sedge) and *Parentucellia viscosa* (Yellow Bartsia) were re-found; the *Hypopitys monotropa* (Yellow Bird's-nest) did not re-appear. Verified records for *Trichophorum cespitosum* s.s. (Deer Grass) and *Trifolium micranthum* (Slender Trefoil) were forwarded to me – both new to the vice-county. I remain amazed at the speed with which land and potential sites are lost through development of one kind or

another.

Clyde Isles (VC 100), Angus Hannah

The main event was a recording week I organised and led on Arran, with 11 attending for at least part of the week. Useful inroads were made into some of the less well recorded areas of the island. A full account was published in the 2015 *Yearbook*.

Otherwise, my work was mainly on Bute, gathering monad abundance data and preparing maps for my proposed Flora of the island. I also made a first foray into brambles, encouraged by my predecessor as recorder, Tony Church, who made a brief, preliminary survey of Bute brambles in 1998, and Scottish referee, George Ballantyne. Tony continues to use his expertise in brambles and *Dryopteris* species to good effect in Arran.

Another significant event was the take-over by FSC of the old Marine Station at Millport. This will open as a field centre in 2015 following major refurbishment, and should help raise the profile of the vice-county, and the Isle of Cumbrae in particular, as a prime location for botanical study and enjoyment.

Kintyre (VC 101), Dave and Pat Batty

Continued progress in Atlas recording was helped considerably by a small group of keen people in the Campbeltown area. Still have a couple of remote coastal hectads to visit but otherwise we now have tetrad records from all hectads. The majority have had more than one tetrad recorded with a seasonal spread of visits.

New VC records included *Primula veris* (Cowslip) along c. 100m of forestry track in Kintyre and several *Rubus* (Bramble) records from Tony Church reflecting a Kintyre visit in 1997 (*R. septentrionalis*, *R. hebridensis*, *R. boudiccae* and *R. hylochoris*) and in 2014 (*R. dasphyllus*).

There was an intriguing record of *A grostemma githago* (Corncockle) from Achamore Gardens on Gigha. One flower appeared in a raised bed where the soil had come from a nearby agricultural field, raising the strong possibility that it was from a seed bank.

Kew Gardens came up to collect *Najas flexilis* (Slender Naiad) material for their seed bank and germination trials. It had not been seen at Tangy Loch for several years but the visit found large amounts suggesting a good year in 2014. It was not re-found at Loch nan Gad.

Parentucellia viscosa (Yellow Bartsia) is known from four hectads in the VC and more sites were found in two of these. One site was a field with horses and the plant was found over half the field.

Refinds of some uncommon species in the VC included *Spergularia rupicola* (Rock Sea-spurrey), three sites, *Valerianella locusta* (Common Cornsalad), two sites and *Pimpinella saxifraga* (Burnet-saxifrage), one large colony across the boundary of two tetrads, only discernible with GPS. Searches for alpine species in Knapdale produced more mixed fortunes even with grid refs

and the area will need to be checked again.

South Ebudes (VC 102), Malcolm Ogilvie

Eight orchid sites were monitored as usual, including those for *Epipactis palustris* (Marsh Helleborine) and *Cephalanthera longifolia* (Narrow-leaved Helleborine).

Pete Stroh, Kevin Walker, David Pearman and Owen Mountford paid their first of what they intend to be annual recording visits to Colonsay – an extremely valuable commitment as, although the island was intensively surveyed in the 1990s, there are comparatively few more recent records.

A limited number of casual records were received. All records made or received have been computerised.

Mid-Ebudes (VC 103), Lynne Farrell

We recorded 25 tetrads on Tiree and 10 on Mull. All data was entered in MapMate and the entire VC 103 database re-synched with the centre.

Other activities

Liaised, mainly by e-mail, with various visitors and locals on botanical sightings and requests for information. ID'ed many plants by e-mailed images.

Collected *Euphrasia* specimens, which Chris Metherell has identified and is helping with his island records for the Handbook.

Wrote, illustrated and published booklet 'Wildflower walks on Mull', and launched it in Tobermory in June 2014. It's selling reasonably well and we hope to have it available on Calmac ferries. Positive feedback received to date and more have been reprinted.

Helped John Sawyer (CE of NBN) develop his website on Mull www.wildmull.com

Helped Steve Nagy, new warden on Mull, with ideas for wildflower walks - these have been well received and more planned for 2015.

Searched for fern hybrids previously found by AC Jermy on Mull, with Mary Gibby. We found a few and also discovered from notebooks at the NHM that several were taken into cultivation, and grown on, but are no longer extant in the wild or in cultivation!

North Ebudes (VC 104), Stephen Bungard

Over 14,000 records were made. Nine species were new to VC 104, two of which native: *Saxifraga cespitosa* (Tufted Saxifrage) on Skye and *Spiranthes romanzoffiana* (Irish Lady's-tresses) on Rum and one potentially the beginning of an invasion: *Senecio inequalidens* (Narrow-leaved Ragwort).

More detail is given elsewhere in this Newsletter and the *Spiranthes* find is the subject of a short note by Mike Ingram in *BSBI News* No. 129. A longer report of activities in VC 104 is posted in two parts (January-June and July-December) on the VC 104 webpage at http://bsbi.org.uk/north ebudes.html

West Ross (VC 105), Duncan Donald

Undoubtedly the highlight was the BSBI Recording Week based at Glenshiel Lodge. A detailed report is published in the 2015 *Yearbook*.

The Inverness Botany Group has visited twice this year, to Strath Kanaird and Dirrie More; Ro FitzGerald accompanied me to the lower slopes of Slioch in (albeit unsuccessful) search for *Dactylorhiza traunsteinerioides* (Narrow-leaved Marsh-orchid) at its original British site; Jim McIntosh "on holiday"(!) discovered *Scilla verna* (Spring Squill) near Mellon Udrigle; Peter Wortham surveyed some overlooked fragments of boundary squares; the Evanses found non gibbous *Lemna gibba* (Fat Duckweed) in VC 105 for the first time; and Stephen Bungard joined James Merryweather in finding a mystery *A rabis* (Rock-cress) species on a wall at Courthill. I thank them all sincerely, and remain glad to receive further records from them and other visitors in future.

For my part, I have continued to make excursions as time allowed. I found new sites for local rarities such as *Radiola linoides* (Allseed), *Cytisus scoparius* f. *andreanus* (Blotched Broom) and *Hypericum humifusum* (Trailing St John's-wort); and it was good to rediscover *Bolboschoenus maritimus* (Sea Club-rush) at Aultbea whence it apparently hasn't been reported since Druce's 1929 Flora. I have also continued my project to map the distribution of the invasive alien *Cotula alpina* (Alpine cotula) with a view to working out how best to eradicate it before it can spread.

I have also now digitized about half of the outstanding 'paper' records that I inherited, and during 2015 shall start to get my backlog of records transferred to the DDb. I should also like to establish an informal recording group. I am also looking forward to the BSBI Field Meeting to be based in Glen Carron in late June: another area that badly needs re-recording.

East Ross (VC 106), Brian Ballinger

Recording has progressed well in 2014 with many previously unrecorded areas being visited. Once more I am particularly grateful to Peter Wortham for his major contributions, particularly in the mountainous west of the vice-county.

Mary Dean and I organised a successful two day BSBI field meeting in July, visiting the Dornoch Firth area. The Morrich More forested dunes have been partly cleared and *Equisetum variegatum* (Variegated Horsetail) appears to have recovered well. *Centaurium littorale* (Seaside Centaury) has also been found again. On the second day we viewed the large population of *Carex recta* (Estuarine Sedge) near Bonar Bridge and there was a new vice-county record for *Mentha requienii* (Corsican Mint) in the shingle of the River Carron.

The Inverness Botany Group paid visits to Inver, Loch Kinellan and the

Fannich Dam. At the latter site we were pleased to find a new site for *Hammarbya paludosa* (Bog Orchid), only the third recent record in Easter Ross. Other groups and individuals also made valuable contributions during 2014.

I reviewed plants in some urban settings and new finds included the first recent record for *Sherardia arvensis* (Field Madder) in VC 106 at Alness Station. It was later also found at Inver.

During the year there were two new 10km square (hectad) records for *Betula nana* (Dwarf Birch) and one each for *Vaccinium microcarpum* (Small Cranberry) and *Arctostaphylos alpinus* (Arctic Bearberry). The persistence of several plants of *Oxytropis halleri* (Purple Oxytropis) at Nigg was confirmed and discussions continue about the management of the sites of this plant.

A similar programme of activities is planned for 2015.

East Sutherland (VC 107), Mick Crawley

Steady progress, with 47,751 records since 2010. Recording in most of the land within 2km of a road, and the entire coastal strip is complete, but there are vast areas of the interior that have no records at all. The botanical rewards for trekking to these isolated sites are low and most of the vegetation is unrelieved wet heath (there are no summits and very few rocky outcrops). There is complete coverage post-2010 at 10km scale, but it is unrealistic to expect complete tetrad coverage in this kind of country.

West Sutherland (VC 108), Pat & Ian Evans

Outstanding discoveries included *Pyrola media* (Intermediate Wintergreen) by Gordon Rothero at Inveruplan (NC12; only 3rd recent VCR), and *Fumaria capreolata* (White Ramping-fumitory) at Oldshoremore (NC25; 1st record since 1948). We also had *Plantago media* (Hoary Plantain) in a garden at Achnacarnin (NC03; 1st VCR), *Lemna gibba* (Fat Duckweed) in garden ponds at Drumbeg and Kinlochbervie (NC13 and 25; 1st and 2nd VCR). Soil imported in builder's bags to Clashmore (NC03) yielded 18 species, including *Amsinckia micrantha* (Common Fiddleneck), *Matricaria chamomilla* (Scented Mayweed) and *Vicia hirsuta* (Hairy Tare), all 1st VCR; the species mix suggests a source on the east coast.

We recorded six new tetrads in the north-west, four of which had to be accessed by sea and made the first records since 2000 for some six others. In addition, Ro Scott recorded four new tetrads on the Cape Wrath peninsula (NC27, 36, 37) and Eamonn Flood one or more on Foinaven (NC35). It is becoming difficult to reach previously unvisited tetrads more than two hours driving from our home.

Caithness (VC 109), Ken Butler

The County Recorder finally submitted his resignation. After a stroke 3 years ago he has not recovered sufficiently to make the necessary field ex-

cursions still required. The position now is vacant. An important file – the index to past records – became corrupt and was backed up in a corrupt state so all was lost. A five year old copy was eventually found and brought up to date from paper records. This was a long job and shows that simple back -up is not the answer. We now have an electronic document archive updated annually so that things never get more than one year adrift. Recording continued in places where the recorder could access. Some (published) work was done on bramble records with a view to encouraging others to take an interest.

234 new records were made during the year.

Western Isles (VC 110), Paul Smith

It's been a busy year in VC 110, with the Uist Botany Group getting underway and making records in a series of tetrads as well as having fun, engaging local people (unusual in the Outer Hebrides where a lot of the botanical recording has been done by visitors rather than residents), and feeding records through to the Outer Hebrides Biological Recording Project. Thanks to Flora Donald for getting this organised, and look out for more meetings in 2015.

The visitors were not to be outdone, however, and the VC recorder made a spring trip to look at *Taraxacum* around Stornoway, surprisingly under-recorded for dandelions given that it has more concentrated ruderal habitats than the rest of the v-c. Eight new county records resulted, thanks to John Richards's determinations, including the uncommon introduction *T. obliquilobum*.

In the summer the regular botanical house party recorded a chunk of central Lewis, away from the coast, with generally short species lists, though a few more interesting species emerged, including a new county record for *Epilobium roseum* (Pale Willow-herb) several sites for *Carex lasiocarpa* (Slender Sedge) and one for *Rumex longifolius* (Northern Dock). An excursion into the North Harris hills refound and localised *Luzula spicata* (Spiked Wood-Rush), not seen for around 30 years - probably because few people have looked!

Other visitors continued surveys of *Hammarbya paludosa* (Bog Orchid) on North Uist, and added records from a number of localities. Please do pass records to the recorder if you happen to be visiting!

Orkney (VC 111), John Crossley

Recording for Atlas 2000 is proceeding well, but there is still much to do in the more remote corners of the islands. Total count of records for the year was just short of 5,000, all entered in MapMate.

Nearly 2,000 of these records were collected during a BSBI recording field meeting in July. We chose sites which had a dearth of recent records and

looked botanically promising. Islands visits were particularly enjoyable: they always lend a sense of adventure and discovery. *Euphrasias* (Eyebrights) figured highly thanks to the presence of two visiting aficionados, who shed much light on local species and hybrids, which include some of the rare coastal ones such as *E. marshallii*.

There were several new VC records, including both native and alien species. Among the former were *Dryopteris carthusiana* (Narrow Buckler-fern) and *Drosera x obovata* (*D. rotundifolia x D. anglica*; Obovate Sundew). One might suspect the latter of being overlooked in the past, but for the close attention paid to the flora of the island of Hoy in the last 100 years or so. *Rosa canina* s.s. (Dog Rose) was another new one. This reputedly southern species may be more frequent in the north than has been thought. Among the newly recorded aliens, otherwise mostly common garden throw-outs, *Epilobium ciliatum* (American Willowherb) has proved to have found its way to the islands, also the very unwelcome *Crassula helmsii* (New Zealand Pigmyweed). SEPA has been informed of the latter and is looking at ways to eradicate it. Work on sorting and digitising the papers and records of the previous VCR is nearly complete. This has opened the way to producing a Rare Plant Register, which is on course to be produced by the end of March 2015.

Shetland (VC 112), Walter Scott

Two very scarce plants turned up in VC 112 in 2014, *Crambe maritima* (Seakale) in two places and *Beta vulgaris* subsp. *maritima* in one place – the first record ever for Sea Beet.

Catriona Murray — a personal memory tor

the Edi-

An excellent obituary for Mrs Catriona Murray has been published in the BSBI Year Book 2015.

As a brief resume, she joined the BSBI in 1960 and was appointed vice-county recorder for N Ebudes (VC 104) in 1966. She published two editions of *The Botanist in Skye*. Laterally she was Vice-county Recorder Emeritus, as well as having been elected an Honorary Member of the Society.

My note refers to a visit paid to Skye in 1998.

She accompanied me on a tour of the island by car, directing me to sites for horsetail hybrids (*Equisetum* taxa) in which she had special interest and knowledge. During this I pointed out the registration letters OMS on the number plate of a passing vehicle and said, "Olga Stewart" (late of Edinburgh and Kirkcudbrightshire recorder). To this she responded, "Up here OMS is the Old Man of Storr".

The following day she took me, plus Stephen Bungard, on a modest hill climb on the Coolins to see the real Skye specialty, Alpine Rock-cress (*Arabis alpina*).

Recent Additions to the Plant List BUNGARD for VC104

STEPHEN

During the three years 2012-2014, twenty new species were added to the plant list for VC 104 (North Ebudes). The majority of these are garden escapes or planted but there are three new native species and three potentially invasive aliens.

In July 2013, John Hawell spotted *Ononis repens* (Common Restharrow) near Ose, which is on the main road from Sligachan to Dunvegan. This is a species that is known from a number of locations in the Outer Isles and also from Tiree, but is missing from the rest of the northwest. Had it been found on the road south from Uig, one might have suspected that it had arrived via a vehicle from an Outer Isles ferry. In any event a vehicle seems likely to have been the source as the plant sprawls over the edge of the A863 tarmac.

Last year, 2014, saw the discovery of *Spiranthes romanzoffiana* (Irish Lady'stresses) on Rum by Mike Ingram. (Fig.1 back cover). With its previously known distribution to the south and west of the Small Isles, this has long been a species on the "hoped-for" list for VC 104 but finding more than 50 in the in-bye land at Kinloch was a surprise.

Also in 2014, Gordon Rothero found *Saxifraga cespitosa* (Tufted Saxifrage) on the Trotternish Ridge (Fig. 2 back cover) very close to where he found *Woodsia alpina* (Alpine Woodsia) in 2001. Both these species were previously unknown in the British Isles outside the mountains of mainland Scotland and North Wales, and both are the lowest altitude records known in the British Isles. *S. cespitosa* is known on the Scottish mainland about 45 km to the east of the Skye site, and *W. alpina* about 56 km to the east of the Skye site at its most northerly known location.

At the other end of the spectrum, the first record for VC 104 of *Heracleum mantegazzianum* (Giant Hogweed) was made in 2012 by Tim Moore. The single plant found in Portree was uprooted and burned. No further specimens have been seen. *Lysichiton americanus* (American Skunk-cabbage) was found by Jenny Grant near the Skye Bridge in 2013. (Fig. 3 inside back cover). Although restricted to a small boggy area, there were about 250 plants when last inspected. This is an area with many other alien species, particularly shrubs, and so far no action has been taken to remove it.

In 2014 Senecio inaequidens (Narrow-leaved Ragwort) was found at the base of several of the Edinbane windfarm turbines by the author. Almost entirely restricted to the gravel areas around the turbines at present, one wonders how long it will be before the readily wind-dispersed seeds give rise to colonies

elsewhere on Skye. John Crossley tells me the 2012 record in Orkney is also from the base of a wind turbine.

The Spread of two Orchid Species ER

DAVID HAWK-

in SW Scotland – the effects of climate change?

The first UK record of Sawfly Orchid (*Ophrys tenthredinifera*) on the Purbeck coast (VC 9) in April 2014, concluded that although wind dispersal of seed from the Continent was a possibility, its origin in the UK would remain uncertain.

This record prompted me to examine the recent spate of NCR and second VC records of two species of orchids in SW Scotland (VCs 72-75). Irish Lady's-tresses (*Spiranthes romanzoffiana*) is basically a northern and western species, apart from one site in Devon (VC 3) and the colonies of SW Ireland, first recorded in Scotland in 1921, as a member of the small North American element of our flora, and the Bee Orchid (*Ophrys apifera*) which is a Sub-Mediterranean – Sub-Atlantic species found mainly south of Cumbria and Yorkshire.

In reverse order, the records from SW Scotland are:

The first record for Kirkcudbrightshire (VC 73) of Irish Lady's-tresses, a single flowering spike, in July 2014 in an atypical habitat

The first VC 73 record of a Bee Orchid colony of 96 flowering plants in 2009

The first Dumfriesshire (VC 72) Bee Orchid colony in 2008, followed by a second colony in 2010

The first Bee Orchid colony in Ayrshire (VC 75) in 2005, followed by a second colony in 2014

The first Wigtownshire (VC 74) record of Irish Lady's-tresses in 2005/6, of 2 flowering spikes

Outwith these VCs, three flowering spikes of Irish Lady's-tresses were discovered in Kintyre in 2006 (VC 101) and 52 flowering spikes of this species for the first time on Rhum (VC 104) in June 2014. Given that these are all records of mature flowering plants, the orchids must have been present at least 5 years prior to their discovery and possibly considerably longer. There may be other examples which I have omitted.

Many reports of these discoveries have concluded that deliberate introduction of these species is unlikely, and that the colonies probably developed from seed carried by wind. If this is the case, then the Irish Lady's-tresses in SW Scotland must have been carried by either westerly winds from Ireland or north-westerlies from the Outer Isles and the nearby mainland sites. Both Silverside (2006) and Teesdale (2007) considered that their records

were probably derived from the NE Ireland populations and hence carried by westerly winds to their present location. The Bee Orchids could have been transported by westerlies from Ireland or conversely by southerly winds from England.

While under-recording cannot be ruled out for *Spiranthes romanzoffiana*, continued spread of these two species, and perhaps others, can be expected.

By coincidence, a vice-county first record of Dropwort (*Filipendula vulgaris*) made in 2014 by a different surveyor occurred at the same site as for the Irish Lady's-tresses record (VC 73). This site has been well recorded over the past 30 years by a number of botanists and it is unlikely that either species would have been missed had they been present before.

Acknowledgements:

Thanks to the following for providing data: Gill Smart, Carol Crawford, Chris Miles, B. Clarke, Jim McCleary, Mark Pollitt (of DGERC).

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Barbour, A. (2010) *Ophrys apifera* (Bee Orchid) in The Stewartry of Kirk-cudbright. *BSBI News* 113, 20.

Miles, C. (2010) Nuclear inspection reveals unexpected orchid populations. *BSBI Scottish Newsletter* 32, 11.

Silverside AJ (2006) Irish Lady's-tresses in Wigtownshire. BSBI Scottish Newsletter 28, 14-15.

Teesdale, I. (2007) A new Mainland Location for *Spiranthes romanzoffiana* (Irish Lady's-tresses). *BSBI Scottish Newsletter* 29, 23-25.

SNH August 2014 e-Newsletter.

False Virginia-creeper (Parthenocissus inserta) P MACPHER-SON

in the West of Scotland part 1

In 2012 False Virginia-creeper (*Parthenocissus inserta*) was noted growing behind a fence on the north-west side of Lainshaw Drive in the Netherton district of Glasgow. It was well established and a new record for Lanarkshire (VC 77). (Fig. 4 inside back cover).

The extent of the Glasgow colony was measured in 2014. It extended at intervals for about 700 yards along the fence, that furthest west being NS 58841.58652 and NS 592095.58772 at the east end. The range was from a single plant to that of a colony 55 yards long. A very few plants were fairly prostate, but the vast majority upright, in many cases reaching 7 feet, the tallest being 10 feet and overtopping the fence.

For the most part they were just in relation to the fence, but on one occasion 3 feet deep.

The plant associates included the following:

Dryopteris filix-mas (Male-fern); Epilobium obscurum (Short-fruited Willowherb); Epipactis helleborine (Broad-leaved Helleborine); Equisetum arvense (Field Horsetail); E. sylvaticum (Wood Horsetail); Lapsana communis (Nipplewort); Rosa sl (Rose taxon); Urtica dioica (Common Nettle); Vicia cracca (Tufted Vetch). There was only one alien - Acer pseudoplatanus (Sycamore), so that, at least in the main, locals were obeying the No Dumping sign on the fence!

False Virginia-creeper (*P. inserta*) part 2

AC HANNAH

In 2014 I noted an unusual plant growing over the stone parapet of an old bridge which carries an unclassified road across the Kilbride burn on the Isle of Bute (NS034678). This proved to be False Virginia-creeper, and I was puzzled how it could have come to be growing in such a relatively remote spot. The piers of the bridge had been repaired using Gabion baskets some years ago after being damaged in a severe spate, and I wondered if the seed had somehow been imported along with these. However, a simpler explanation was presently uncovered, when I found the plant growing over a roadside garden wall at Nether Ettrick, about 700m further down the road. This leaves only the question of how it came to be transported that distance to the bridge. There are no previous records for VC 100 (Clyde Isles).

The main associate at this site is *Rubus lindleianus*, growing vigorously from below the Gabion baskets. It will be interesting to see if the bramble and the creeper can co-exist successfully, or if the new arrival eventually comes to dominate.

Joint Discussion. The plant is a native of North America (as the name would imply) and stated to have scattered records in Britain north to W Lancs (Stace 2010). The diagnosis was based primarily on the fact that the tendrils had < five branches which did not end in adhesive discs. As far as we know, these are the first records for Scotland.

Reference

Stace, C (2010). New Flora of the British Isles (3rd edition). Cambridge University Press.

Bramble Outliers in NE Scotland

DAVID

WELCH

For this article I consider five vice-counties (VCs 90-94) and define an outlier as occurring separated by at least 100 km from the nearest colony of that bramble species.

I have used the "Pink Atlas" (Newton & Randall, 2004) to assess distributions, although I omit two species seeming to have NE outliers from its maps but for which I have subsequently found linking colonies; they are *Rubus errabundus* and *vestitus*, with colonies respectively in VCs 91 and 90. I have also left out two species whose NE Scotland occurrences were based on just single specimens, *lindebergii* and *raduloides*, and ten unnamed species.

My aim is to provide for batologists some basic description of the present state of these outlier species in the north east and what habitats they occupy, and give an opinion on which of them are new colonists. I list the species in series order as given in the Pink Atlas, together with their hectads and districts of occurrence.

Table 1. Outlier brambles in NE Scotland and their occurrences.

Species	Hectads	Districts
lindleianus	NO99	Cammachmore
sciocharis	NJ94	Maud
cardiophyllus	NJ63	Ythanwells
rhombifolius	NJ94, [NO87]	Maud
anglocandicans	NO99	Cammachmore
surrejanus	NJ63, 72, NK03	Ythanwells, Barra, Cruden Bay
anglofuscus	NO65	Lunan
anisacanthos	NJ73, 82, 92, 94, 95, NK04	Fyvie, Pitmedden, Old Deer, Lenabo
adenanthoides	NJ84	New Deer
rufescens	NK14	Peterhead
hebridensis	NJ33, 34, 56, [NO88]	Dufftown, Sandend
hindii	NK04, 14	Peterhead

[] brackets show erroneous records in the Pink Atlas that resulted from attempts to name a species now considered unnamed.

A striking feature of these outlier occurrences is that three times I have found two outlier species growing in close proximity.

At Cammachmore a hedge mainly comprised of a hybrid willow (considered to be *Salix* x *fruticosa* by Dr Meikle) has been planted along almost 1 km of

a country lane, and in addition to scattered bushes along the roadside of *R*. anglocandicans and lindleianus there are also some of tuberculatus. I suspect all three of these brambles were introduced in some way by the planting of this conservation hedge, maybe with other components such as rose bushes; anglocandicans has a UK range confined to central and eastern England, and its occurrence may narrow down the source of the hedging. Significantly the usual roadside brambles of NE Scotland, echinatoides and mucronulatus, are absent.

The two Maud occurrences of outlier brambles are both on a former railway, the Peterhead branch line that closed in 1970. The sites are separated by just 250 m and both seem to have been single colonisations; now the *rhombifolius* colony has grown into a 25 m long thicket and that of *sciocharis* is a very vigorous large bush. Both species have similar UK distributions with very few locations north of Lancashire, and it is hard to explain why they could have moved 500 km north seemingly by rail transport but without other colonisations along Scottish railways. Possibly batalogists may yet find more railway colonies here, but I have walked a substantial proportion of the former lines in the NE so am fairly sure both species are rare.

Three more of the outlier species have railway occurrences, but also grow in other habitats and maybe spread to the suitable situations that railways provide for brambles, rather than the reverse move. At Lunan on the Angus coast I found *anglofuscus* in the policies of Lunan House, while George Ballantyne independently spotted it on a nearby railway embankment. The nearest colonies of this strong-prickled species are in Staffordshire, and again a movement by rail over 600 km without any apparent intermediate colonies seems implausible; my hunch is that there is some link of Lunan House, a small mansion, with Staffordshire or Warwickshire.

The second species with partial railway occurrence is *surrejanus*. It is southern English but the Pink Book describes it as aggressive, hence it possibly spread north in different ways. At Ythanwells the species is clearly a recent introduction since it occurs alongside amenity broad-leaved trees planted at the edge of a new conifer plantation, with its strong stems intermixed with *cardiophyllus* in a thicket. Its Barra location is along a rough track branching off an A road, and the single large bush at the junction that first drew my attention has spread in about 10 years to become a dense stand 80 m long. The only railway site of *surrejanus* is near Cruden Bay, but this line closed in 1945 so introduction related to nearby large-garden houses seems equally possible.

For *hebridensis* I believe presence at Dufftown is associated with limestone outcrops. The colonies extend up to 240 m altitude and are almost the highest I know in NE Scotland; when Alan Newton identified them as this ocean-

ic bramble over 20 years ago, he predicted their early demise due to likely cold winter weather. I have not seen the species on the now privately-owned railway running from Dufftown down to Keith, but it does occur near Sandend on the Cullen-Portsoy line closed in 1968; geologically the Sandend district is similar to Dufftown.

For *adenanthoides* I report only its presence in a ditch along a straight road probably established when crofts were set out over 200 years ago. *Rufescens* has several extensive thickets around Peterhead and could be associated with granite quarries nearby.

R. hindii is very widespread along roadsides around Peterhead, and occupies more ground than any other bramble species in its two hectads. Being abundant in Norfolk and having other east-coast occurrences, hindii perhaps came to Peterhead in some way related to the fishing industry, whose boats worked along this coast in the decades around 1900. For the final outlier species in NE Scotland, anisacanthos, its wide occurrence in woodland and some roadsides suggests its presence here is not a result of recent introduction but that it is a long-term constituent of plant communities in this area.

Reference

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

Mopping up in VC 84 COTT

JACKIE MUS-

This year I embarked on a mopping up operation – visiting monads with few or no post 2000 records. As it happened however some of my more interesting finds were incidental, and not in the targeted squares.

The year started well with a fungal outing to Craigie Hill at the beginning of March, which revealed a patch of Moschatel (*Adoxa moschatellina*) high up on the hillside rather than low down by a river as usual. I had of course botanised the area before, but not this particular spot at this time of year. Similarly, when later en route to a rather unexciting square, I couldn't resist checking a burn which I had looked at several times previously and discovered several plants of Fool's Watercress (*Apium nodiflorum*). It has not been recorded in the vice-county since 1934, and nowhere near the current site. The stream goes through a couple of gardens and I wondered if the *Apium* had been planted, though it is not the most obvious garden flower.

Error intervened on another occasion when I took a wrong turn and discovered a large patch of Broad-leaved Helleborine (*Epipactis helleborine*) in a damp strip on the edge of a plantation. There was plenty of Common Spotted –orchid (*Dactylorhiza fuchsii*) about too, but that is not uncommon in the

area.

As for the targeted squares, many were quite built-up and fairly uninteresting though I usually managed a respectable list. Sadly houses and industrial estates (not much industry, more warehouses and depots) continue to spread, often over the remnants of boggy areas which must once have covered a good deal of the south west. The one interesting find on an industrial site was a row of Alders with long cherry-like leaves, planted outside the Aldi depot, south of Bathgate. Douglas McKean eventually identified it as *Alnus japonica* which brings my total of Alders to 5. (There is also a rather good drainage pond on the site, so it's not all loss).

A few years ago a former railway line between Bathgate and Airdrie was reopened. In the interim it had been converted into a rather good (botanically speaking) cycle track, and a new track has been built beside the railway. I have only investigated a small section which runs through a bog at Blackridge, and both the bog and the cycle track seem to have retained a good deal of interest.

One of my most exciting finds was not in my patch at all, but at Newtonmore while on holiday with friends in the autumn. We went for a walk along the river and at one point crossed a shallow pool to a bit of shingle. One of my friends asked what the funny grass was — it was Needle Spike-rush (*Eleocharis acicularis*) emerging from the water and coming into flower. The last time I saw it in flower was 25 years ago in a shallow pond at a local nature reserve (which was dug out and the plant destroyed before the end of the year), but I had recently been shown the underwater form during the BSBI meeting at Birnam.

There are still a few VC 84 squares to be visited, not to mention those affected by the new Forth Bridge works, but I hope to treat myself to some of the richer sites too.

Ben Lawers National Nature Reserve Saturday 6th – Sunday 7thJune: Photographing Wild Flowers

Learn how to take stunning photographs of plants in their natural habitats on this floristically rich nature reserve. The emphasis will be on image capture including both indoor discussion of theory and outdoor photographic sessions.

Duration: 2 days

Cost: £100 non-residential, self-catering bunkroom accommodation available at £15 per night.

Bring: Walking boots, warm, waterproof and windproof clothing, your own camera, tripod etc and laptop if you have one. You will need a packed lunch and drink each day.

Meet: 9.30am Ben Lawers NNR Ranger Base, Lynedoch, Killin, FK21 8UW.

Booking essential; for further information please telephone 0844 4932136 or email benlawers@nts.org.uk

Scottish Field Meetings 2015

Very full details of the following meetings will be found in the Year Book

May 16: An introduction to recording for Atlas 2020, RBGE, J McIntosh

June 6-7: Wetlands, Cattick Ponds & Colvend Lochs (VC 73), D Hawker

June 26-29: Achnashellach (VC 105), D Donald

June 27: Tulach Hill, nr Blair Atholl (VC 89), J Holland

July 4-11: Straiton, Ayrshire (VC 75), D Lang, G Smart & C Crawford

July 25-Aug 1, Unst, Shetland (VC 112), J McIntosh & L Farrell

Aug 1-7: Saxa Vord, Unst, Shetland (VC 112), C Metherell & L Farrell

Aug 8: Kittyfield, Melrose (VC 80), L Gaskell

Aug 15: Cleish Lochs, W Fife (VC 85), S Edwards

Aug 22-23: Ballater/Aboyne, S Aberdeenshire (VC 92), I Francis

British Pteridological Society Scottish Group Meetings Programme 2015 All Welcome!

Date	Location
Tuesday, 21 April	Ascog Fernery, Isle of Bute - workday Leader: Bridget Laue
Saturday, 20 June	Loch Lomond — Walk along the West Highland Way from Inversnaid, crossing Loch Lomond by Tarbet ferry Leader: Andy MacGregor
Saturday, 25 July	Bioblitz at Dawyck Botanic Garden Leader: Heather McHaffie
Fri- Sun, 14-16 August	Fern weekend in Lochalsh (mainland adjacent to Skye) Leader: James Merryweather
Saturday, 19 Sep- tember	Scottish Autumn Indoor Meeting, Glasgow Host: Chris Nicholson
Saturday, 24 October	National BPS autumn meeting Glasgow Botanic Gardens Leader: Pat Acock

BSBI members are very welcome. If you would like to attend any of the BPS outings, please contact me, Bridget Laue, a few weeks before the date of the meeting, when further details should be available.

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For up to date information check the website: www.ebps.org.uk/events/category/meetings/regional/scottish

Photographic Competitions

2014 BSBI Photography Competition

Members enjoyed a great display of excellent BSBI Photographic Competition images at last year's Annual Exhibition Meeting in Leicester and Scot-

tish Annual Meeting in Edinburgh thanks to the 25 entrants who, among them, submitted a total of 90 images.

We chose two simple categories to give entrants great scope for submitting their best images: 1) <u>Plants</u>, including mosses, lichens, and stoneworts and 2) <u>People</u> interacting in some way with plants. We asked for all entries to be submitted electronically so we could arrange to print them professionally. This ensured a fairer competition - after all this was a photo competition not a printing competition!

The winning photographs were selected by a popular vote by those attending the Edinburgh meeting. Congratulations to Ludi Lochner, who won first prize in the Plants category with an image entitled "Snake's-head Fritillary, early morning, in wild" and to John Crellin who won in the Plants and People category with his "Craig y cilau, photographing *Polygonatum* on the edge". The winning photographs adorn the front and back covers of *BSBI News*: 128.

We are delighted to be able to print three images which were entered in the 2014 photographic competition. The front cover of this edition of the *BSBI Scottish Newsletter* shows "Yellow Rattle" submitted by David Blowers while the inside front cover has "Rustle-up Some Trees" by Paul A Smith and "Gwyn Jones wading in Loch Sneosdal on the Isle of Skye" at Skye Botanical Group meeting by Terry Swainbank.

We are very grateful to Summerfield Books who kindly provided Book Token prizes; to Claudia Ferguson-Smyth for organising the competition and to all those who entered or voted.

2015 BSBI Photography Competition

We plan to repeat the competition in 2015, but with new categories and rules. We would like to use this year's photographs to create a BSBI calendar. So, in order to get a selection of suitable photographs of plants throughout the seasons, we will have four categories: Plants in 1) Winter 2) Spring 3) Summer and 4) Autumn.

Photographs should be taken in Britain and Ireland and be of vascular plants (flowering plants, conifers, ferns, horsetails, clubmosses) or stoneworts. They do not have to be taken during 2015.

The closing date for entrants will be 18 Oct 2015.

Please submit the largest possible file sizes.

Copyright of images will remain with the photographer.

However the BSBI claims the right to exhibit the entries, and to use them to further its aims generally and to promote the BSBI and its photography competition.

The BSBI also claims the right to edit or use images in combination with others.

Full details will appear on the BSBI website shortly, but meantime get those

cameras out and start snapping your spring photographs!

BSBI Photography Competition Organiser - Vacancy

The organiser of the 2014 BSBI Photography Competition would like to stand down to allow her more time to follow other botanical interests. We are therefore looking for a keen volunteer to organise the competition in 2015 and subsequent years. Specifically the volunteer would receive photographic entries; arrange to have them printed; exhibit them at the Scottish Annual Meeting and organise the competition. Most of the work would therefore be in the weeks just before and on the day of the Scottish Annual Meeting.

It would be more important for the applicant to be a good organiser than necessarily a good photographer, although the post would obviously suit someone who is keen on botanical photography. Claudia Ferguson-Smyth, the current organiser, would be delighted to help with any mentoring, training and advice that is required, and the volunteer would work closely with the BSBI Scottish Officer. If you are interested in this volunteer vacancy – please get in touch with me Jim McIntosh, BSBI Scottish Officer, jim.mcintosh@bsbi.org before the 30 June 2015.

Space Filler/ Newspaper Bloomers

I had an exhibit entitled 'Newspaper <u>Bloomers</u>' at the Scottish Annual Meeting in 2011. Such are an interest of mine and I write the following, partly on that account, but also as space filler.

Last summer similar articles appeared in a daily and a weekly newspaper within a few days of each other.

One commented on the fact that the caterpillars of the marsh fritillary butterflies ate "leaves of only one particular wild flower called 'devil's bit scabious' and that in Scotland their population is almost entirely limited to the Inner Isles and coastal Argyll".

The other publication changed it slightly, but significantly to, "They eat the leaves of a particular wildflower, devil's bit scabious, only found in the Inner Hebrides and Argyll".

I had pleasure in showing the above articles, particularly the latter, to my family and passing on the information, to those who did not know that in recent years *Succisa pratensis* has been recorded in 100 of the 118 quadrants in Lanarkshire. All but five full and all but 13 partial ones!

I like to take every available opportunity of keeping up their interest in field botany.

Editor