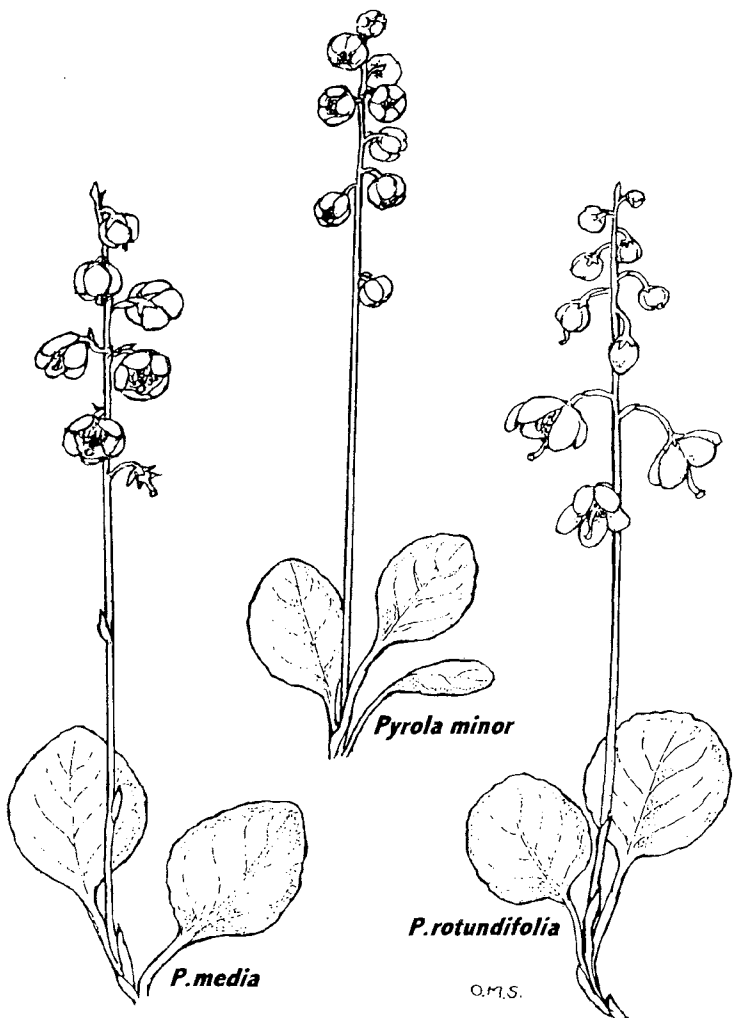


BSBI

1998

Scottish Newsletter

No 20



P. media

Pyrola minor

P. rotundifolia

O.M.S.

BSBI SCOTTISH NEWSLETTER

Number 20

Spring 1998

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Editorial

We are always glad to receive papers from our regular contributors but are particularly pleased that in this issue four members have submitted papers for the first time.

In the 1997 issue it was intimated that, in common with *BSBI News* it was intended to give both botanical names and names in English. The purpose of this is to encourage members who do not have knowledge of the scientific names. It was requested by our Secretary that those submitting abstracts would comply with this convention. It is disappointing that so few of the contributors of abstracts of exhibits shown at the November 1997 Meeting have remembered to do so. However, we have ensured that both the scientific names and corresponding names in English appear in the articles.

Now that more botanists have access to computers, it would be appreciated if authors could where possible send in their contributions on disc. We are however, very happy to receive copy in double-spaced type or handwritten form.

Once again we are indebted to Olga Stewart for the cover illustration. It may interest readers to learn the reason for this year's choice. In the article on Raasay there is the statement "*Pyrola rotundifolia*.....virtually certain" This reminded one of the editors that a *Pyrola* specimen found in the papers of the late Robert Mackechnie and which had been tentatively identified as *P. rotundifolia*, was sent to the Royal Botanic Garden, Edinburgh for positive identification. The opinion given was "It must be *P. media*, but that was not an easy decision". The illustrations are a good reminder of the features of the individual species but it is appreciated that a specimen may have overlapping characteristics.

We extend congratulations to Jim Dickson on his election to a personal chair as Professor of Archaeobotany and Plant Systematics in the University of Glasgow.

The Editors

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Chairman's Remarks

P MACPHERSON

Scottish Botany has sustained a great loss with the death in March 1998 of Alfred Slack. A short appreciation is given elsewhere in this issue and mention is made of the arrangements for a full obituary in the BSBI journal *Watsonia*.

The Committee for Scotland met on four occasions during the past year. In addition to matters relevant to recording, much committee time has been spent in the consideration of conservation issues and the officers have written an appreciable number of letters on that subject: eg proposed open-cast mining in different locations, landfill, wholesale clearing of foreshore to eradicate Japanese Knotweed (*Fallopia japonica*). We applaud the proposed reinstatement of the Forth and Clyde Canal but have obtained assurances from British Waterways that they will co-operate with us, when dredging commences, to ensure that the endemic Bennett's Pondweed (*Potamogeton x bennettii*) is not eradicated.

In addition to the ongoing Atlas 2000 project, Recorders have extra work at this time in relation to the proposed Vice-county Comital Flora. On the first page of the draft print-out for VC 77 received from the organisers, there were 62 taxa requiring 71 changes. This shows how much Lanarkshire requires an up-to-date publication. David McCosh is the Organiser for Scotland and if he requires to communicate with the other Recorders as frequently as he has been doing in relation to Lanarkshire he has an enormous task.

In last year's Newsletter I intimated that four metal boxes designed to take 8"x 5" record cards were available and I am pleased to report that three have now gone to good homes.

At the November Annual General Meeting mention was made of the retirement of two Committee Members who had had special responsibilities and who had fulfilled their duties timeously and exceedingly well. Mark Watson was Meetings Secretary from 1991-1996 and Secretary/Treasurer from 1995-1997 and Gordon Rothero was Field Meetings Secretary from 1993-1997.

Last autumn Basil Ribbons called at my house to leave a number of boxes containing old botanical correspondence, field cards and individual species cards. These were sorted into VC order and those relating to individual vice-counties in Scotland ranged from zero to over 100. The material has been passed on to the appropriate Recorders. In addition there was a set of Minutes of the Committee for the Study of the Scottish Flora and this has been passed to the Honorary Secretary for safe keeping.

Introduction

After a four-year gap the Scottish Annual Meeting returned to the Royal Botanic Garden, Edinburgh for 1997. Following the completion of the Herbarium and Library extension, the existing rooms have been redesigned into a conference facility. This meant that we were able to hold the meeting all on the ground floor, making it easier for the less able to attend. The new extension also provides lift facilities, so anyone wishing to consult the newly expanded British Herbarium (now reorganized to follow the 'Kent' order) could do so. This was the last year of my term of office on the Committee for Scotland, and although I passed on the formal organisation for the Meeting to Lynne Farrell, I was more than happy to be involved in the on-the-ground preparations (and write this report!). As usual the event was hosted by the BSBI and the Botanical Society of Scotland, and thanks must go to Douglas McKean, and the BSS for their help on the day. For the first time refreshments were available in the morning whilst exhibitors set up their stands. This was greatly appreciated, and I hope will be repeated in following years. I continue to be impressed by the quality of the exhibits and the enthusiasm of those that attend. I am delighted to say that we have a complete set of abstracts for everything that was exhibited, so a second chance to catch up on the news if you missed the meeting or did not get a chance to see everything. One thing the abstracts (or this report) cannot convey is the general hubbub and excitement in the exhibition room when the meeting is in full swing. Botanists from all around the country are keen to see the exhibits, catch up with news from friends, and pin down the experts for help with those bugbear specimens. Drawing them away from the exhibition hall and into the other events is nearly impossible! This year we tried something different for the evening supper and booked our local Chinese restaurant. It was difficult to judge how a group with diverse tastes would respond to this, but we were very happy (and relieved!) by the way that the evening went, and the positive feedback. As I mentioned earlier this was a special Meeting for me, and I was deeply touched by all the gratitude that I received. It is indeed a pleasure to organise these events for such an appreciative group of people. Edna Stewart has taken over the organising of the next Scottish Annual Meeting (in Glasgow), and I am looking forward to being able to join the 'hubbub' and see the exhibits!

Scottish VC Recorders Meeting

Peter Macpherson was in the Chair, his repaired gavel up to the task of keeping the meeting in order. The BSBI President elect, Mary Briggs, attended. BSBI Chairman David Pearman was invited to address the meeting. He introduced the topics that would be covered by the Co-ordinator and by the Atlas Organiser. Cameron Crook discussed progress towards computerising VC records, the Biological Recording Network Millennium Bid, and the national profile of the BSBI. Trevor Dines gave an update on *ATLAS 2000*: 1997 was a good field season, and the Recorders Conference a great success (the plan is to repeat this next year in Lancaster rather than skip a year). Chris Sydes concluded the meeting with a presentation on SNH Action Plans, and the potential role of VC recorders within this scheme.

BSBI Scottish Regional Meeting

The Annual General Meeting for the BSBI membership resident in Scotland was attended by 60 members. Peter Macpherson (Chairman) reported on the activities of the Committee for Scotland with thanks to retiring members. As usual future field meetings were outlined to the meeting, and the plans for a second *ATLAS 2000* workshop in Scotland in 1998 was discussed. Michael Braithwaite (the new BSBI Treasurer) encouraged the membership to pay their subscriptions by Direct Debit, and preferably also take out a Deed of Covenant. Continuing discussions in previous meetings, on the suggestion of the Chairman, it was agreed that, for a trial period, the venue of the Scottish Annual Meeting would be based on a 5-year cycle: the usual Edinburgh-Glasgow alternation would continue, but every 5 years an alternative venue could be used. Thus the 1998 meeting would be held in Glasgow, and the 1999 meeting in Stirling.

Lecture

During the afternoon Richard Pankhurst (Royal Botanic Garden Edinburgh) gave a well illustrated and interesting talk entitled "The flora of the Outer Hebrides", to an audience of nearly 100. Starting off with a general introduction to the islands wildlife and the environment, Richard showed the harsh living the inhabitants carved out of the land. Exposure to the strong westerly gales has created the famous plant-rich machair communities and

left the islands thankfully midge-free: both positive attractions to visitors from the mainland. Spectacular views are to be had from the lofty peaks (weather permitting), as the complex arrangement of land, freshwater lochans and the intricate coastline, can only be appreciated from these vantage points. Richard quite rightly says the landscape is 1/3rd water, 1/3rd rock and 1/3rd vegetation! Plants have a tough time as the soils are nutrient poor, and there is a problem with overgrazing by sheep (EC subsidies are based on a head count and not the number of animals the land should be able to support). However, Richard was able to show us many stunning images of rarities, including eyebrights and orchids, and equally beautiful photographs of less-rare plants growing in profusion. All major vegetation types were covered during the talk, with examples of the characteristic species. John Proctor (President of the Botanical Society of Scotland) gave the introduction, and summed up the proceedings with praise for Richard's most entertaining and enlightening lecture.

Abstracts of Exhibits

Some Ayrshire (VC 75) Records 1997

J Blane

The exhibit consisted of a plant photographic record at location, and voucher specimens, from new locations for *Polystichum setiferum*, *Salix purpurea*, and *Carex spicata*. These were recorded by the Ayrshire Wildlife Survey Team of the Scottish Wildlife Trust. *Polystichum setiferum* was recorded from Camregen Glen by Old Dailly, and *S. purpurea* from the Penwhapple Burn, close to its conjunction with the Water of Girvan. *Carex spicata* was recorded from Pow Burn Wood, Prestwick, one of three 1997 records (pers. comm. A McG Stirling). The other two are from road verges near Symington and Mauchline. Photographs were also displayed of: *Senecio squalidus*, wall of Trade Market, Kilmarnock (March, 1997); *Scrophularia auriculata*, Pow Burn, Prestwick (June, 1997); *Drosera intermedia*, Dalmellington Moss (July, 1997); *Ranunculus sceleratus*, south beach strand line, Troon (September, 1997); and *Datura stramonium*, south beach yellow dune, Troon (September, 1997).

Trends in the Establishment of Aliens into "the Wild" M Braithwaite
At a time when ATLAS 2000 recorders are still struggling to come to terms with the BSBI Status Categories for aliens (*established*, *surviving* and *casual*), Michael Braithwaite presented a written paper together with an

illustrated display based on an analysis of 61 aliens recently recognised as *established* in VC 81 (Berwickshire). This classified these aliens into further categories: those *integrated* into the flora; those with *integration potential*; those *localised only*; and those merely *escapes*. Such an analysis indicates a continuous gradation between cultivated and wild plants, and emphasises the subjective element in the application of any classification designed to cater for the spread of aliens into the wild. The difficulty of presenting useful information on the spread of aliens in a distribution map was also illustrated.

Caithness Plants

K Butler

Specimens of *Festuca rubra* subsp. *littoralis* from the northern shores were shown, together with *Anthyllis vulneraria* subsp. *lapponica*, which is a frequent variant on the North coast. *Lepidium draba* subsp. *draba* has appeared as a thriving colony at the Thurso riverside in tidal waters. A new colony of *Equisetum pratense* has been discovered at Dunnet Links, which is the second VC record for this species. The records for VC 109 (Caithness) are now computerised, and a summary chart of progress with modern records was shown. Around half of the records are now post 1987, and most of the rest are post 1970.

Plant Records from Southern Scotland

RWM Corner

The following species were exhibited. *Equisetum variegatum* from a rich inland calcareous mire, a second record for Dumfriesshire (VC 72), and rare in southern Scotland. New to Roxburghshire (VC 80) were the hybrid sedges *Carex rostrata* x *vesicaria* and *C. hostiana* x *viridula*, with the latter also new to Selkirkshire (VC 79). *Alchemilla glomerulans* was found in a third site in VC 79, and *A. mollis* was new and well established. Other VC 80 plants exhibited were: *Calamagrostis canescens*; *Lythrum portula* (second extant site); *Salix caprea* subsp. *sphacelata* (second extant site); and the second record and the only extant site for *Reseda lutea*, from an old railway site where it was noted some 37 years ago.

Huperzia selago subsp. *arctica*;

How Common is it in Scotland?

RWM Corner

This subspecies has recently been admitted to the British List, but little is known of its distribution. A specimen taken to be this subspecies, from blanket bog at 150m altitude in NW Sutherland (VC 108), was exhibited, together with a plant from E Greenland. Comparisons were made with the more common subspecies *selago*.

Aquatic Macrophyte Survey - Lake District National Park

A Darwell & P Taylor

In 1996 the Lake District National Park Authority commenced a series of surveys to review the current status of aquatic macrophytes in the larger lakes of the National Park using snorkeling. The results are stored in AQUAMAC (a customised Access database), and linked to maps showing the distribution of the key species on Mapinfo GIS. The lakes surveyed to date have been Windermere, Bassenthwaite Lake and Ullswater. Permanent transects have been established in eight bays on Windermere. The 1996 data have been compared with those collected by R Stokoe (Freshwater Biological Association Occasional Paper No 18, 1983). The effects of long-term nutrient enrichment, phosphate stripping, and introduced species, such as *Elodea*, are also considered.

Abundant Regeneration by Scottish Limes in 1997

JH Dickson &
M Hansen

The good summer of 1995 allowed Lime trees (*Tilia* spp.) to set good seed which germinated in the spring of 1997. Seedlings have been found in Glasgow, Milngavie, Motherwell and Perth. Has anyone seen them elsewhere in Scotland? The good summer of this year has again produced ripe Lime seed, most of which should germinate in 1999.

Mapping Taxa on Atlas 2000 Date Classes

TD Dines & CD Preston

The Vascular Plant Database (or VPD, from which the *Atlas 2000* will be produced) currently includes records from various sources, including data from the Scarce Plants Project, the Red Data Book and *Aquatic Plants in Britain and Ireland* (CD Preston & JM Croft). We therefore have a good, pre-*Atlas 2000* database for a variety of taxa. In order to assess the quality of this database, it was decided to plot all the Scarce and some aquatic taxa using the three *Atlas 2000* date classes (1987 onwards, 1970-1986 and pre-1970). Differentiation was also made between native and alien records, as it will in the final publication. This exercise proved very instructive, and a variety of taxa mapped in this way were displayed. The maps of selected Scarce and aquatic taxa will be published as a green booklet in the *Fieldwork for Atlas 2000* series.

News from the Northwest

P. & I. Evans

This year's selection from Assynt (VC 108) is a mixed bag. *Neottia nidus-avis* was photographed in its one site, near Achmelvich, and *Dactylorhiza lapponica* was found in a second locality in the parish. New to both the parish and the VC were *Rumex longifolius*, *Salix x ludificans* (*S. phyllicifolia* x *S. aurita*), and, as a casual, *Valerianella carinata*. The one remaining site

in the UK for *Phyteuma scheuchzeri*, on the Inchnadamph NNR, also yielded *Campanula cochleariifolia*, *Gentiana verna*, and *Silene quadrifida*!

***Luronium natans* in the English Lake District**

G Halliday

Specimens of *Luronium natans* were exhibited from Derwent Water, where it was discovered in 1996 by C Newbold. This represented the first definite record both for Cumberland (VC 70), and for Cumbria. In the following year it was also found around the head of nearby Bassenthwaite Lake. Further study of Newbold's site in 1997 showed the plants to be highly polymorphic. Laminate-leaved plants were present around the margin, but all submerged plants had rosettes of linear leaves, and formed a dense mat. Beyond about 2m these basal rosettes produced a forest of long slender vertical stolons (to 1.8m), like pieces of string, the daughter rosettes looking like ribbons tied at regular intervals. Long-petiolate leaves were rare, and, like the 'strings', failed to reach the surface. The lower rosettes had single, long-peduncled (to 19cm), small flowers which appeared sterile. There appears to be no mention in the literature of such 'strings'. They may result from the uprooting of young stolons, but are more likely vertical from the start.

A Flora of Cumbria

G Halliday

Copies were displayed of this long awaited county Flora covering VCs 69, 70 and parts of 60 and 65. The book is lavishly illustrated with 113 plates, mostly in colour, and 1190 colour-contoured distribution maps (for the first time in a county Flora).

Look and Learn

BG Hogarth

This poster illustrates a personal view of some of the ways that information about plants can be absorbed without really trying! These include: preparing artwork for designs; drawings for instruction manuals; photography to record plants and habitats; keeping a scrapbook of sketches and pressed specimens for reference; doing fieldwork throughout the year (the repetition of recording works wonders); field meetings with other botanists (a great way to gain experience and confidence); growing wild plants from seed to observe stages of growth; and last but not least, recording in Angus (VC 90) for *ATLAS 2000*.

Scottish Rare Plant Project:

The Kew Millennium Seed Bank Contract

P Lusby

During 1997 and 1998 the Scottish Rare Plant Project is contracted to collect seed samples from 80 species which are mainly nationally rare or scarce in Scotland. The exhibit listed the species collected during the first field season, and pointed out some of the difficulties encountered. It

seemed a poor year for seed production in many sedge species, and rabbit grazing destroyed a potentially good seed output from a population of *Ajuga pyramidalis* in Rogart, Sutherland. *Artemisia norvegica* failed to produce well developed seed, and it is likely that this plant rarely produces viable seed, however, results from germination tests are awaited. I would be interested to hear from anybody who has successfully grown *A. norvegica* from Scottish seed.

Some "Braemar Berries"

K Fallowfield

A light-hearted look, with photographs, of the flowers, leaves and fruits of some of the (mostly) dwarf shrubs found in the upland areas near Braemar (VC 92, South Aberdeen). Comments were included on the culinary uses to which these berries may be put.

Paper From Plants

L Farrell

During a three-day course at Kindrogan Field Centre in September, many different types of paper were produced using recycled paper and various types of plant materials, including nettle, onion skin, banana skin, rose petal, grass and seed pods, to add to the design and texture. Fungi are also suitable for producing textured paper ranging from white with flecks (Birch Ploypore), through buff (Oak Maze Gill), to deep chocolate brown (Hoof Fungus). Surprisingly, it is the tough looking bracket fungi that provide the best pulp when soaked and then liquidised.

Finnish Berries

J Croft

A selection of close-up photographs were exhibited of a range of berry producing shrubs taken in Finland.

Lesser Sea-spurrey -

An Abundant Roadside Plant in Lanarkshire

AC & P Macpherson

This exhibit draws attention to the phenomenal spread of the maritime plant, Lesser Sea-spurrey (*Spergularia marina*) along the road verges in Lanarkshire (VC 77). The blue stickers on the map marked the 73 x 1km square records made in the 14 month period September 1996 - October 1997. We found the plant on approximately half the occasions that we stopped at likely looking locations. So far it has been found along 14 A roads, nine B and six unclassified roads. We considered that it was likely that the plant was present also along most of the other classified roads not yet surveyed. At some sites there was just the occasional plant but in other localities we found fairly solid colonies of up to 100 yards in length.

Notable Recent Records From VC 78

DJ McCosh

This small exhibit reported three new authenticated records for the VC: *Alchemilla filicaulis* subsp. *filicaulis*; *Rosa canina* subsp. *caesia*; and *Rosa caesia* x *canina*. *Meum athamanticum* was recorded for the first time in 100 years.

New and Interesting Records for Midlothian

D McKean

New and rare discoveries from the Lothians were displayed, with some additional novelties. These were found by various botanists, including C Dixon, S Maxwell, D Allan, D McKean and others. The species included *Ranunculus* x *levenensis*, *Lepidium chalepense*, *Verbascum lychnitis*, *Equisetum* x *fontqueri*, and *Vicia tetrasperma*.

Five Willowherb Hybrids New to Science

D McKean & G Kitchener

Five new hybrids of *Epilobium brunnescens* were exhibited. The other parents of these novel plants are *E. obscurum*, *ciliatum*, *lanceolatum*, *palustre* and *montanum*. A paper detailing these discoveries is due to be published in the next part of *Watsonia*.

Additions to VC 104, 1995-1997

CW Murray

VC 104 evidently is not finished yet! In 1995 DM Henderson noticed a gorse flowering in October. This turned out to be *Ulex galii*, a new record for Skye, though already in the 1965 Rum checklist. Quite independently MS Porter added a second site for this plant in 1997. SJ Bungard records Raasay by 1km squares, which explains how he reaches the remote corners. The discovery of a colony of *Ophiglossum azoricum*, at the northern tip of the tidal Eilean Tigh in 1996, and some more on Fladday in 1997, rewarded this diligence. Whilst bringing the 'Small Isles' records up to date (annually since 1992), J Bevan, PF Braithwaite and CW Murray have added *Amsinckia micrantha* to Muck in 1996, *Equisetum pratense* to Eigg in 1996 (also added to Raasay in the same year by SJB), and *Carex hirta* to Rum in 1997. In June 1997, *Neottia nidus-avis* was found near Portree by M Henriksen (previously only recorded in Raasay).

Aquatic Plants at High Altitude in Breadalbine

DA Pearman &

CD Preston

Several British aquatic plants reach their maximum altitude in the Breadalbane mountains (VC 88, Perthshire), but there are few recent records from these high-altitude sites. In order to remedy this situation, we visited the area in 1995. Specimens collected on this visit were exhibited, accompanied by notes on the significance of the records. Further details have been included in a note recently submitted to *Watsonia*.

Botanical Books from Oundle

M Perring

A large selection of new and second hand books for sale was displayed, together with some other BSBI botanical equipment.

A Recorder's Management Problem

A Rutherford

An exhibit consisting of photographs highlighted the problems of space and organisation, and referred to in the *BSBI Scottish Newsletter* No 9 (1987).

A large linen cupboard was described and its contents. Things are worse now, with only part of one day off a week, and much more paperwork on things botanical!

Interesting Records for Kirkcudbrightshire

OM Stewart

Atriplex praecox has been recorded for the second time in VC 73 (Kirkcudbrightshire), currently the only extant site. *Crassula helmsii* is a New County Record (unfortunately!). The declining *Gnaphalium sylvaticum* was recorded at its third extant locality. *Egeria densa* mysteriously turned up in a small Monk's fish pond. A vertical panorama of an enormous dead Elm with 40 feet of Traveller's Joy cascading down from the top. *Cardamine corymbosa*'s arrival in a rock garden nursery, and displayed quite extensive variability in inflorescence structure: some suited the old name *C. uniflora*. A spiny *Ononis* was found which may be the hybrid of *Ononis repens* and *O. spinosa*.

Paintings of Established Plants

OM Stewart

A collection of paintings of established garden plants from holidays in Kent and central England were exhibited.

Supper and Slides

The exhibition closed at 5.45pm, and 64 people migrated up the road to the Tai Hu House restaurant of the Marina Hotel. We had five large round tables and were treated to an authentic Chinese banquet where new dishes kept arriving, and extra rice was always to hand. We had arranged for a varied menu including vegetarian and less spicy dishes, so there were options to suit most tastes (there was also an extra dish with the complements of the management). Drinks were available at the bar, and the seating arrangement encouraged the flow of conversation across and between tables. It is always a good sign when enjoyment delays the schedule, so we were not too worried when we found the people reluctant to leave their tables for the slide show.

Most folk migrated upstairs, and packed out the seminar room for the light-hearted slide show, hosted by Lynne Farrell, that customarily concludes the day's events. Bangs and whizzes from fireworks outside heralded the start when Hugh Lang stood up to show his Greenland rarities. The following is a brief summary of the contributions:

- Hugh Lang** - Greenland rarities and Wigtownshire coastal plants
Ian Evans - Ventnor Field trip, Isle of Wight
Ken Butler - Sandwood Bay, Blackfords Bridge, *Rhinospora fusca*
Catriona Murray - Isle of Skye plants, Rum and Eigg discoveries of 1997
Jackie Muscott - W Lothian plants, Aberdeen Meeting, Selkirk, Mull
Barbara Hogarth - Plant portraits from Angus
Richard Bateman - New advances in the systematics of terrestrial orchids
Lynne Farrell - Mull, Campbeltown. Kintyre and Islay
Allan Stirling - The first CSSF overseas meeting in 1964, Norway, Scottish rarities in abundance

In Memoriam — Alfred Slack 1913-1998 ALLAN STIRLING

A BSBI member since 1952, Alf Slack died on 6th March 1998 following a severe stroke. With his death Scottish botany lost one of its most active field workers.

As a young man Alf was a keen mountain climber of more than average ability, and it was no doubt his experiences among the Scottish hills just after World War 2 which awakened his interest in botany, and particularly a fascination with our native arctic-alpine flora.

I first became acquainted with Alf through membership of the Andersonian Naturalists of Glasgow (now the Glasgow Natural History Society) which he had joined in 1948. He was instrumental in persuading me to join the BSBI in 1954. For the next few years we were both heavily involved in recording for the first Atlas project. Almost every weekend the Slack family Alf, his wife Mattie and children Alan and Christine, would leave Glasgow to camp or live in their caravan, usually somewhere in the Highlands, and I

frequently joined them on these occasions. It was the beginning of a long and lasting friendship.

While still a teacher in Glasgow, Alf secured the tenancy of a cottage on the Lunga estate, south of Oban and thereafter, most weekends were spent there. Ownership of an old cabin cruiser soon followed. Named 'Fulmar', it was moored conveniently close to the cottage, enabling voyages to be made to offshore islands and further afield to the Inner Hebrides during longer summer holidays. I accompanied the Slacks on several of these trips, perhaps the most memorable being to Mull, Lismore and the Garvellachs (Isles of the Sea).

After teaching for some years in Glasgow and at Keil School, Dumbarton, Alf took up an appointment in Campbeltown and the family moved to Kintyre. Eventually on his retirement they finally settled at Kentallen near Ballachullish.

Alf Slack will probably be best remembered for his rediscovery of *Homogyne alpina* (Purple Colt's-foot) — one of George Don's 'lost' plants, in Glen Clova in 1951. Another notable achievement, was his confirmation of the 18th century records of *Dryas octopetala* (Mountain Avens) and *Oxytropis halleri* (Purple Oxytropis) on Beinn Sguilaird in Argyll. He was one of the main organisers of the field work leading to the publication of *A Map Flora of Mainland Inverness-shire* in 1985. He led many of the field meetings in connection with that project and was also largely responsible for the text.

If there was one part of the Highlands which particularly attracted Alf it was the western portion of Inverness-shire and that bit of Argyll which is included in VC 97. He was vice-county Recorder for the area until his death.

A full obituary notice will be published in *Watsonia* Vol. 22, part 3.

Raasay — 1997 Update

STEPHEN J BUNGARD

Ophioglossum azoricum (Small Adder's-tongue) was confirmed from Eilean Tigh and a few specimens were also found on Eilean Fladday.

Additions to the Raasay list in 1997 were:

Dryopteris oreades (Mountain Male-fern) on scree between the road and Meall Daimh, determined by Alison Paul of the Natural History Museum.

Polypodium interjectum (Intermediate Polypody) discovered near Hallaig by a visitor, Eric Baker.

Pyrola rotundifolia (Round-leaved Wintergreen) on the eastern cliffs confirmed (as "virtually certain") by Henry Noltie at RBG Edinburgh (new to VC 104).

Elytrigia x laxa determined by Tom Cope at Kew (new to VC 104) on the shore near Inverarish.

Lunaria annua (Honesty) escaped or thrown out from a garden.

A re-evaluation of *Erophila* (whitlowgrass) on Raasay has shown it all to be *E. glabrescens* (Glabrous Whitlowgrass). Specimens from all but one extant populations have been determined by Trevor Elkington. All records for *E. verna* (Common Whitlowgrass) are thought to be in error.

Vulpia bromoides (Squirreltail Fescue) was found by the shore at Brochel in large numbers. A single plant was also spotted at Arnish. These are the first records since J W Heslop Harrison's in the 1930's.

Ophioglossum vulgatum (Adder's-tongue) was found above the Fearn-Leac path where it had been reported in 1984.

Three pure white examples of *Orchis mascula* (Early-purple Orchid) were found on cliffs near Screapadal. According to *Wild Orchids of Scotland* (B Allan & PJB Woods, 1993. Publ: HMSO Edinburgh) this form is "not reported in Scotland" - it would be interesting to know whether readers can refute this.

A new site for *Osmunda regalis* (Royal Fern) was found, but only a single plant was present. This is the first site not recorded in the 1930's.

Scottish Field Meetings 1998

The following have been arranged. Full details will be found in the Year Book.

| | |
|---------------|---|
| June 20-22 | Tain, Easter Ross. PCH Wortham & R Scott |
| July 4-5 | Rothesay, Isle of Bute. TD Dines |
| July 7-9 | Fintry, Stirlingshire. EW Stewart & TD Dines |
| July 11-12 | Thornhill, Dumfriesshire. C Miles & TD Dines |
| July 13 | Greenlaw, Berwickshire. ME Braithwaite & TD Dines |
| July 14-15 | Galashiels, Selkirkshire. RWM Corner & TD Dines |
| July 17-19 | Strontian, Westerness. G Rothero (NB Change of Venue) |
| July 25 | Tabrax, Lanarkshire. P Macpherson |
| July 30-Aug 1 | Barra, Outer Hebrides. RJ Pankhurst (NB Change of Date) |

Glasgow Garden Festival — 'where have all the (best) flowers gone?'

P MACPHERSON

Colonisation of the 1988 Glasgow Garden Festival site has been an interest of mine since 1991 (Macpherson 1993, Macpherson & Lindsay 1994, 1997). As previously reported, immediately the Festival closed, some plants were sold and others taken to form the basis of continuing feature gardens elsewhere.

I knew of the transplanting within the city but until 1996 was unaware that a considerable number of trees and shrubs had been taken to the abandoned Woodneuk Estate east of Gartcosh, Lanarkshire (VC 77).

While recording at the neighbouring Garnqueen Loch in late 1996 a teenager informed me that if I wanted to see some "real flowers" I should go back west and take the second road on the left. Where this road changed to a track I spoke to a householder who informed me that the area had been Woodneuk Estate, but that the house had been demolished many years previously. The track and road were part of a right of way which ran between Bishopbriggs and Grangemouth. The transplantation operation had cost £2,000,000 and had been a wonderful display for part of the first year. Then all the most desirable plants were dug up — mostly by people with cars! Subsequently, when it became apparent that the planted area was no longer worth preserving, the "higher trees" were taken for the grounds of Herriot Watt University.

I returned in 1997 to record at the site. There are still rows of shrubs along two paths. These include Thunberg's Barberry (*Berberis thunbergii* 'atropurpurea'), Shrubby Cinquefoil (*Potentilla fruticosa* cv.), Hybrid Coralberry (*Symphoricarpos* x *chenaultii*), Red-osier Dogwood (*Cornus sericea*), Red-berried Elder (*Sambucus racemosa*), Firethorn (*Pyrocantha* sp.), Juneberry (*Amelanchier* cf. *stolonifera*), Dutch Rose (*Rosa* 'Hollandica'), Snowberry (*Symphoricarpos albus*). At another path side there is a little copse of willows (*Salix* spp.) and poplars (*Populus* spp.). Lesser Periwinkle (*Vinca minor*) forms extensive ground cover.

I think that it is important to place on record the above information so that the source of the alien plants will be appreciated by anyone recording on the site in the future.

The 'best flowers' have apparently gone to private gardens in north Lanarkshire!

References

- Macpherson, P (1993). Colonisation of the Glasgow Garden Festival Site three years on: implications for recording. *Watsonia* 19, 169-179.
Macpherson, P & Lindsay, EK (1994). Glasgow Garden Festival Site Revisited. *BSBI Scottish Newsletter* 16, 16-21.
Macpherson, P & Lindsay, EK (1997). Glasgow Garden Festival Site Update. *BSBI Scottish Newsletter* 19, 26-29.

1997 : Pleasurable New Finds in Kirkcudbrightshire (VC 73)

OM STEWART

A visit, to an area near New Galloway with friends who wanted to show me a site for Field Gentians (*Gentianella campestris*), brought to my attention a magnificent botanical site. The fields there are acres in extent with mixed damp hollows which have grassy slopes and are cattle-grazed. The marshy areas have sedges (*Carex* spp.) Grass-of-parnassus (*Parnassia palustris*) and my second site for viviparous Deergrass (*Trichophorum cespitosum*). When we reached the grassy plateau and knolls the Field Gentians were in such abundance that one could barely walk without treading on them. The habitat reminded me of where, 3km away in 1979, the first Frog Orchid (*Coeloglossum viride*) was recorded in this century, so I searched and found over 100. This is now the third Frog Orchid site in the vice-county.

The second find was at a coastal site. While going to update *Carex punctata* (Dotted Sedge) for Atlas 2000, I was skirting round a cereal field and was delighted to see Corn Marigold (*Chrysanthemum segetum*), Field Woundwort (*Stachys arvensis*), Black-bindweed (*Fallopia convolvulus*), Bugloss (*Anchusa arvensis*), Green Field-speedweel (*Veronica agrestis*) and the endemic Purple Ramping-fumitory (*Fumaria purpurea*) growing along the crop edge, a sight one rarely sees these days.

The third find was more interesting than pleasurable. On a lovely afternoon I decided to record close to home in a place I had thought uninteresting and had kept putting off until another day. The Monk's fishpond, which is looked after by Historic Scotland, is cleared out once or twice a year and usually has no visible greenery around the pond's edge. This year there were two plants of Water-plantain (*Alisma plantago-aquatica*), a small amount of Bog Pondweed (*Potamogeton polygonifolius*), Alternate Water-milfoil (*Myriophyllum alterniflorum*), Common Water-starwort (*Callitriche stagnalis*) and submerged, what looked like a very large Nuttall's Waterweed (*Elodea nuttallii*). I took a small branch of the last to the Edinburgh Herbarium for identification and found that it was Large-flowered Waterweed (*Egeria densa*). How it got into the pond is a mystery. I thought I had the answer when the Curator told me that two years previously a terrapin had been discovered in the pond and that its removal had proved very difficult. I presumed therefore, that it had been dumped along with its aquarium contents. However, I subsequently learned that the terrapin was in the larger millpond which is almost totally plant free. The only connection between the two ponds is a dry lade with nothing growing in it. When water is added to the Monk's fishpond it comes by pipe from a nearby burn. I will be interested to see what plants appear in 1998.

BSBI Committee for Scotland

The following is the composition of the committee from Nov 1997-Nov 1998:
Chairman - Dr P Macpherson: Secretary/Treasurer - Miss L Farrell,: Field Meetings Secretary - K Watson: Minutes Secretary - Mrs BG Hogarth: Meetings Secretary - Mrs EW Stewart: Members of Committee - JR Edelsten, J MacIntosh, Dr RJ Pankhurst, Mrs OM Stewart.
Representing SNH - Miss R Scott: Representing BSS - Dr N. Cowie.

At the AGM on 7th November 1998 Drs P Macpherson and RJ Pankhurst and Mr J Edelsten retire. PM and JE are eligible for re-election.

Nominations for the vacancies, signed by two members of the Society normally resident in Scotland, or who are recorders for a vice-county in Scotland, although not resident there, and with written consent of the candidate, who must also qualify as above, should reach the undernoted at Scottish Natural Heritage, Kilmory Estate, Kilmory, Lochgilphead, Argyll PA31 9RR by 30th September 1998.

L Farrell Honorary Secretary

Barbara's Botanical Bugbears

BG HOGARTH

It occurs to me that one of the differences between field botany in Scotland in the 1800s and the 1990s is that nowadays the element of discovery has largely gone - unless one enters the world of ALIENS.

The *Flora of Angus* (1981) contains a great many rare and scarce garden escapes, casuals, introductions, aliens etc, call them what you will - mostly in ephemeral habitats or close to habitation. Angus is a relatively large vice-county with a vast expanse of mountain and moorland north of the highland boundary fault and well tended farmland to the south. There is a reasonable diversity of natural habitats with which to get to grips, so why has so much time and effort gone into recording former railway stations, derelict land and tips? My guess is that it is one way of finding new, rare and scarce plants without walking miles and scaling precipitous rockfaces! I have dotted about the hilly and coastal parts of Angus for a few years now in an effort to get records up to scratch for Atlas 2000 - at best I have been confirming old records as most of my hopeful 'new finds' have already been recorded somewhere in the vice-county.

I would question the real value of recording non-native species, particularly those of an ephemeral nature exploiting derelict building land or similarly temporary habitats, and including them in the main body of a *Flora*, local or national. My ambition is to work through the Angus *Flora* and carefully weed out what I deem to be superfluous non-native species in order to create a user-friendly plant checklist for the vice-county. It could be argued however that we need to know something about the spread and potential establishment of non-natives, and some kind of monitoring is clearly useful in the case of well-established introductions and those aggressive invaders capable of muscling in and upsetting existing plant communities.

My house is only a few hundred yards from a considerable area of land 'claimed' from the Tay Estuary. Vast quantities of rubbish have been dumped and covered with soil brought in from goodness knows where and this has all been compacted by the lorries and bulldozers working on the site. Local government reorganisation delayed establishment of the proposed local nature park and much of the land has lain fallow for two years. Amongst the agricultural and horticultural weeds there were fine specimens of Wild Carrot (*Daucus carota*), Viper's Bugloss (*Echium vulgare*), Teasel (*Dipsacus fullonum*), Tall Melilot (*Melilotus altissima*) and White Melilot (*M. alba*). I almost found myself getting excited about these showy colonisers. Then I considered the nature of the substrate and asked the following questions -

- a) where did the plants originate?
 - from seeds already present in the soil and rubble brought in
 - from seeds dispersed from nearby road verges and landscaped areas
 - or were some seeds sown before work on the landscaping ceased
- b) how long will this habitat remain unmanaged?
 - it could be further tipped on, landscaped or even built on.

This man-made habitat may not even last for the short time-span allowed for Atlas 2000 recording - more infilling is going on as I write this article (Dundee is desperately short of land for rubbish disposal). The records I made in 1997 could be irrelevant by this time next year but if not, how do I classify the plants in terms of naturalness? Some of the plants found, clearly originated from a non-native wild flower seed mix, others are native in Fife but not Angus and some are native in Angus if one could be sure of their provenance.

Over the past few years there have been a number of initiatives to encourage tree planting and community woodlands. The ground preparation and subsequent exclusion of grazing animals causes considerable changes to the vegetation. The trees planted may be native species but would not necessarily have become established in these localities by themselves. In due course any progeny could be recorded as occurring naturally without reference to the original planting. All too often the diversity of the open ground habitat is

lost and already plants recorded for Atlas 2000 have been obliterated by tree planting schemes.

How do we keep up with all the changes to the natural and semi-natural habitats? Botanists have to be prepared to travel extensively to maintain a good working knowledge of their patch and I for one am much more in favour of focussing on existing natural habitats and learning more about the requirements of Scotland's native plants than I am in trying to keep up with the array of unfamiliar aliens that crop up in artificial habitats. We should perhaps shift the emphasis from discovery to consolidation and really get to grips with a good down to earth knowledge of our native flora and how to ensure its survival into the next century.

Reference

Ingram, R & Noltie, HJ (1981) *The Flora of Angus*. Dundee Museum and Art Galleries.

***Crassula helmsii* in a Drymen, Stirlingshire (VC 86) Garden Pond**

JOHN MITCHELL

Two years ago I reported seeing a population of the Australian Swamp Stonecrop (now called New Zealand Pigmyweed — *Crassula helmsii*) in Central Scotland for the first time (Mitchell 1996), only to discover subsequently, a thriving colony right under my nose, in a neighbour's garden pond! Introduced into the pond as a recommended oxygenator only four or five years earlier, such has been its vigorous growth that major thinning has already been required on two occasions.

On enquiry, I learned that the original plants had been obtained by mail order from a water garden stockist in Cambridgeshire. The suppliers catalogue, from which the plants had been ordered, cheerfully states that *C. helmsii* makes "a nice green carpet on permanently wet soil". This is no exaggerated claim, for in this particular instance it has already begun to invade the damp edge of the lawn adjoining the pond. The dealer's current catalogue does at least now warn prospective purchasers of the species' aggressive nature, but no hint is given on the need for safe disposal of unwanted thinnings. Under suitable conditions a new colony of *C. helmsii* can establish itself from the smallest carelessly discarded fragment.

Reference

Mitchell, J (1996). The Australian Swamp Stonecrop (*Crassula helmsii*) — a less than welcome addition to the flora of the Upper Forth Valley. *BSBI Scottish Newsletter* 18, 22-23.

A Short Note on *Verbascum* in Midlothian Including the Hybrid *V. x lemaitrei* (*V. thapsus* x *V. virgatum*)

DR McKEAN

The hybrid was found on waste ground in the Duddingston area of Edinburgh by Stuart Maxwell in July 1996. As the plant is new to Scotland and only known from one site in Warwickshire in Britain and Ireland I thought it would be useful to make a comparison between it and its parents.

The hybrid is about 1.5m tall with flowers golden yellow both inside and out. The anthers are orange brown and the three longer stamens have orange filaments with yellow hairs. The shorter pair have yellow filaments and are glabrous. The inflorescence is almost as dense as *V. thapsus* (Great Mullein) and the leaves are decurrent and have the similar branching hairs while the leaf outline and crenation is similar to that of *V. virgatum* (Twiggy Mullein). The calyx is more hairy than *V. virgatum* but is not glandular on the outer surface, although there are a few glands on the inside tip. The venation is bullate as in *V. virgatum* and the flowers are quite like those of *V. thapsus* but much larger than average.

In 1997 *V. lychnitis* (White Mullein), from the south of England, was found in the same area. It will be interesting to see whether it will hybridise. It appears to be only a rare casual north of the border and the only Scottish specimens of it in the herbarium (E) were collected on the rocks below Stirling Castle from 1836 to 1909. According to Clapham Tutin & Moore (1987) it has been known in Scotland from Edinburgh and Perth but I cannot find a Midlothian record.

Set Aside and Weeds at Kittyfield

L.GASKELL

Under EEC rules, farmers wishing to claim under the Arable Area Aid Scheme have to put a proportion of crop land into set-aside (5% in 1996 and 1997). This can be managed in a variety of ways. To maximise wildlife benefit we have chosen to use the natural re-generation option under which a field which was in crop the previous year is left undisturbed over the next season; the only requirement being that it is cut short between 15th July and 15th August.

The field selected for the last two years is a five acre portion of a very dry and stony land, pH6, at 780' on the plateau above the River Tweed overlooking Melrose. The area has developed an interesting flora of weeds which have lain dormant or survived the weed killers of the last 25 years.

The majority of the 75 species present are common in the Borders: eg *Agrostis capillaris* (Common Bent), *Aphanes arvensis* (Parsley-piert), *Bromus hordeaceus* ssp. *hordeaceus* (Soft-brome), *Cerastium fontanum* (Common Mouse-ear), *Cirsium arvense* (Creeping Thistle), *Geranium dissectum* (Cut-leaved Crane's-bill), *G. molle* (Dove's-foot Crane's-bill), *Holcus lanatus* (Yorkshire-fog), *Myosotis arvensis* (Field Forget-me-not), *Poa annua* (Annual Meadow-grass), *Ranunculus acris* (Meadow Buttercup), *Trifolium pratense* (Red Clover), *Trisetum flavescens* (Yellow Oat-grass) and *Veronica persica* (Common Field-speedwell)

Less common plants include *Hypericum humifusum* (Trailing St John's-wort) which is scattered in the Borders and may be increasing in similar sites. *Arenaria serpyllifolia* (Thyme-leaved Sandwort) is spreading out from a small quarry, in the field where stone for dyke-building was obtained, the dry sides of which also support a good colony of *Cerastium arvense* (Field Mouse-ear). *Stachys arvensis* (Field Woundwort) occurs in a number of fields on the farm including the set-aside. It seems to be rare in the Borders, the last recorded record for Roxburghshire being near Morebattle in 1970. Also growing in the unsprayed but cultivated headland on this field are *Lamium hybridum* (Cut-leaved Dead-nettle), *L. amplexicaule* (Henbit Dead-nettle) and *Veronica agrestis* (Green Field-speedwell).

Over the two years in which the field has been uncropped, a good number of wind dispersed colonisers, such as *Cirsium* (thistle), *Epilobium* (willowherb), *Sonchus* (sow-thistle) and *Crepis* (hawk's-beard) have appeared, accompanied by some more interesting plants. *Epilobium brunescens* (New Zealand Willowherb) seems rather out of place on the dry ground. *Lactuca virosa* (Great Lettuce) gained a foothold from one plant in 1966 to 20 in 1997, the first Roxburgh record for 150 years. The plant is mentioned in Hooker's *British Flora* (1855) as being around Melrose but not in his *Flora Scotica* (1821). There is a recent record nearby at Dryburgh (VC 81). Finally, *Anaphalis margaritacea* (Pearly Everlasting) did appear but has now been eaten by roe deer. The most recent record for this plant is from the Bowmont Water near Belford (Brotherston 1872).

In conclusion, it seem that set-aside can be a profitable habitat in which to botanise and may provide a haven for uncommon arable weeds.

References

- Brotherston, A (1872). A list of Plants not recorded in *Eastern Borders' Flora in History of the Berwickshire Naturalists Club*, Alnwick VI, 435-440.
Hooker, WJ (1821). *Flora Scotica*. London.
Hooker, WJ & Arnott, GAW (1855) *The British Flora* 7th edition.

Artemisia verlotiorum — New to Scotland PAUL GREEN

Artemisia verlotiorum (Chinese Mugwort) is a plant which I have not seen for ten years and then on only two occasions in the London area, the region with which I associate it in the United Kingdom. To come across this plant on two occasions in Scotland, Moray (VC 95) and Easternness (VC 96) came as a surprise.

I had spent the morning recording for Atlas 2000 with my brother Ian and Geraldine Crouch in the Relugas area, crossing off 236 species on the card for the tetrad NH 94Z. We were just heading off when Ian spotted, through the car window, a strange plant. On examining it the debate started as to its identity. Was it an *Artemisia* or could it even be an *Echinops* (Globe Flower)? With a few houses just up the road, was it a garden plant that we had never seen before? It was only early July and further examination and identification would have to be deferred. My next visit was not until the end of October at which time I could at least be certain that it was an *Artemisia*. Even this late in the year there was still no sign of an inflorescence and no side branches, just stems about 1.5m high. It was obvious that the plant must be perennial as it had formed a large patch by creeping.

The following day while driving on the A 96 between Forres and Auldearn I noticed a very striking stand of a tall dark green plant growing on the north verge. It was the same *Artemisia* that I had seen at Relugas. This stand was more than double the size of the earlier record being at least 6m x 4m. Again there was no sign of either inflorescence or side branches. By matching the description in Stace (1991), I considered that the plant had to be Chinese Mugwort and the identification was confirmed by Eric Clement.

What a good ending to 1997 with a new record for two vice-counties, the plants growing just 9km apart as the crow flies.

Reference

- Stace, CA (1991). *New Flora of the British Isles*. Cambridge University Press.

A Southerner Recording in Moray PAUL GREEN **for Atlas 2000 in 1996 & 1997**

When my brother Ian told me that he had taken over from John Edelsten as vice-county recorder for Moray (VC 95) my first reaction was "You must be mad". I had to look at a map of vice-counties to see where Moray was as I

had never heard of it and had no idea as to its whereabouts in Scotland. As a child I had travelled in England and Wales many times with the family, but on only one occasion had we visited Scotland. Having no memory of this visit I had expected Scotland to be like the pictures in glossy magazines and what I had seen on television — spectacular scenery of mountains and lochs. How wrong I was! On arriving for the first time at the end of March 1996 I found that at least half of the vice-county was flat and sandy, with large areas of conifers, arable ground and market gardening. What a let down! It was more like being in the Brecklands of Norfolk and Suffolk. Later in summer many of the cultivated fields were yellow with *Amsinckia micrantha* (Fiddleneck), *Chrysanthemum segetum* (Corn Marigold) and even on occasion were blue with *Centaurea cyanus* (Cornflower).

To my surprise, at the time of my first visit, the spring plants were at about the same stage as I had left behind in Somerset. *Gagea lutea* (Yellow Star-of-Bethlehem) was in bloom on the banks of the River Findhorn, abundant on either side of the river for a stretch of about 3km. I found it hard to believe that I was at the site described by Mary McCallum Webster (1978) in her *Flora of Moray, Nairn and East Inverness*. Even though native spring plants were not common some of the spring flowering aliens seemed to be extremely well established eg *Petasites albus* (White Butterbur) which in places turned the banks of the River Spey white as far as the eye could see.

I found however, that there are areas of difference between Moray and the south of England. Moray may not be famous for its rare plants, having only *Moneses uniflora* (One-flowered Wintergreen) and *Linnaea borealis* (Twinflower) but each of these has some very healthy populations. To someone like myself, from the south of England, plants such as clubmosses are always a delight to come across, especially *Lycopodium annotinum* (Interrupted Clubmoss). Unfortunately, this had suffered badly from the burning of the heather on Creag Ealraich. *Listera cordata* (Lesser Twayblade) on the other hand did not seem to be affected in any way, little green specks popping up through the black ashes everywhere. It is a common little orchid in Moray, growing from almost sea level to the top of the highest mountain. *Goodyera repens* (Creeping Lady's-tresses) is another very common orchid in the county found under any Scots Pine (*Pinus sylvestris*) you care to look beneath, but it also grows on tussocks in bogs and on heather moorland. We have now updated all the pre-1970 VC 95 records for *Goodyera* in *Scarce Plants in Britain* (1994), as well as for many of the other scarce species recorded for Moray. This just goes to show the plants are still extant. The above book states that the highest site for *Goodyera* is near Mornish at 336m. I have seen it at approximately 400m on the slopes below Carnan Fhradhairc west of Advie. *Corallorhiza trifida* (Coralroot Orchid) is another small orchid that has benefited from recording for Atlas 2000. The two pre-1970 sites have

been re-found and an additional record made in a disused quarry in the Glen of Rothes, south of Fogwatt.

Even although the mountains of Moray do not reach any great altitude, these are the areas in which I tend to find the species of interest to a southerner. Before my visits to Moray I had spent only one day botanising in a mountainous area. I was interested to see *Tofieldia pusilla* (Scottish Asphodel) and *Sedum villosum* (Hairy Stonecrop) along Allt Iomadaidh south of Bridge of Brown. The north side of Creag an Tarmachain has been the most rewarding mountain so far, with *Cryptogramma crispa* (Parsley Fern) growing on scree and new for VC 95, with good records also for *Cornus suecica* (Dwarf Cornel) and *Salix herbacea* (Dwarf Willow).

After two years of recording, the records are starting to accumulate, with several 10km squares having well over 500 species and the odd tetrad almost at the 300 mark. It is the challenge that I like about recording in Moray, still not having enough experience with the habitat to know what species I am likely to find in any particular area. Further, why do plants such as *Empetrum nigrum* (Crowberry) look just as happy growing on the coast getting splashed by the waves during storms, as they do growing on the mountains, while in Somerset they have to grow on the very highest damp points of Exmoor to survive. Why do species such as *Anemone nemorosa* (Wood Anemone) seem to be so common amongst the heather while in Somerset it is a rare plant in this habitat? The journey of over six hundred miles each way that I have to make on each visit is well worthwhile for the knowledge and experience I have so far gained by recording in a completely different area.

Reference

Stewart, A, Pearman, DA & Preston, CD (1994) *Scarce Plants in Britain*. JNCC, Peterborough.

Regeneration of Lime Trees

In their abstract of the Annual Meeting Exhibits, JH Dickson and M Hansen ask whether other members have noticed regeneration of lime trees in Scotland.

The under named requests that a copy of any observations of seedlings in 1997 or in 1998 be sent to him also, as he is conducting an independent survey.

R Gray, 6 Prince Albert Road, Glasgow G12 9JX.

Bird-seed Grasses in Lanarkshire

P MACPHERSON

Continuing my series of grasses in Lanarkshire (VC 77), this article records the post 1982 occurrences of bird-seed grasses in the vice-county. It is appreciated that not all the records are the result of importation as, or with, bird-seed but most have resulted from that form of introduction. This applies both to those seen on coups (refuse tips) and on waste ground / road sides, the latter most frequently the result of clearing out of bird cages.

Digitaria sanguinalis (Hairy Finger-grass). A native in the Mediterranean region, this species is established in the Isles of Scilly, the Channel Isles and in several towns in SE England. Elsewhere it occurs as a casual imported with wool, bird-seed, agricultural seed or grain.. The only Lanarkshire record has been at a dock. It possibly arrived as a contaminant in grain but within the dock complex I have frequently noticed seed that has been scattered to feed the local pigeons.

Echinochloa esculenta (Japanese Millet) This casual of Asiatic origin is probably derived from *E. crus-galli* and is a well known bird-seed alien in this country occurring particularly on tips and waste ground. However, it has been recorded on only one occasion (on a coup) during the survey period.

Panicum miliaceum (Common Millet). The origin of this plant is obscure, variously regarded as being native in India or North America. It has been grown as pheasant food in Norfolk. It is regarded as being a common casual in Britain as a bird-seed or other source alien. The species has been seen on coups on five occasions and once on waste ground at Shiels in the west of Glasgow.

Phalaris canariensis (Canary Grass). A bird-seed alien of tips and waste ground but also grown as a bird-seed crop in S and C England. It is a native in NW Africa and the Canary Islands. This has been the bird-seed alien most frequently recorded in Lanarkshire, having occurred 13 times on coups and in another seven occasions on waste ground or road sides within, or in the neighbourhood, of Glasgow. I was particularly interested to see a patch at Dalmarnock in the vicinity of a home-made doocot.

Setaria italica (Foxtail Bristle-grass). This plant was derived from *S. viridis* as a crop, probably in China. It is the 'millet-spray' given to cage birds. It has been seen on one occasion on a coup and on another at the road side in waste ground in the Kinning Park district of Glasgow. This latter specimen was a form with the bristles almost totally absent.

Setaria pumila (Yellow Bristle-grass). In addition to tips and waste ground, this plant occurs as a casual in cultivated ground. It is native in the warm-temperate regions of Eurasia and Africa. There have been three coup records for this species.

Setaria viridis (Green Bristle-grass). The habitats and sources are as for *S. pumila*, but it occurs more commonly and is occasionally established in Britain. This species has also been seen on coups on three occasions but in addition, twice on a dock and once at Dumbarton Road, Glasgow (A McGS).

Despite having recorded regularly, over a 15 year period, on the Lanarkshire coups I have made fewer records of bird-seed grasses than I would have expected although sightings of such plants tend to become less frequent, the further north the study area is in Great Britain. During the period some coups have become full and been grassed over (no bird-seed grasses involved!) while others have been brought into use.

Much of the background information for this article has been derived from Ryves *et al* (1996) and/or Stace (1997).

Acknowledgement

I am grateful to Mr EJ Clement for considerable help with the identification of my specimens.

References.

Ryves, TB, Clement, EJ & Foster, MC (1996). *Alien Grasses of the British Isles*. Botanical Society of the British Isles
Stace, CA (1997). *New Flora of the British Isles*. 2nd Edition. Cambridge University Press.

Atlas 2000 Glasgow Workshop April 1998

A second Scottish Atlas 2000 Workshop was held on 25th April, on this occasion in the Art Gallery and Museum, Kelvingrove, Glasgow.

The meeting and programme were organised by Peter Macpherson and Trevor Dines. A general welcome was given by PM who made special mention of the Workshop Leaders and expressed appreciation to Keith Watson for the excellent local arrangements.

TD gave a resume of progress with Atlas records, chaired the meeting and,

standing in for Tom Cope, gave a talk on *Agrostis* (bent grasses). Alan Silverside updated *Aconitum* (monk's-hoods), *Mimulus* (monkeyflowers) and *Spiraea* (brideworts) and Douglas McKean demonstrated hybrids involving *Epilobium brunnescens* (New Zealand Willowherb). There followed a period during which Recorders viewed the exhibits and/or had specimens identified by the specialists.

In the afternoon, Richard Lansdown gave a talk on the identification of *Callitriche* (water-starworts) and Chris Preston described the identifying features of some *Potamogeton* (pondweed) species and hybrids with particular reference to Scotland.

During the day the following exhibits were on display:

Paintings of *Hieracia* (hawkweeds) and Aliens by Olga Stewart ; *Potamogetons* by CDP; *Agrostis* and *Aconitum* by KW; *Sparganium* (bur-reeds) seeds by RL; and a fresh specimen of *Lagarosiphon major* (Curly Waterweed) by PM.

The attendance of 24 was very gratifying.

A vote of thanks to the leaders and the local and general organisers was given by Edna Stewart.

There followed a demonstration by TD of AditKey, a programme to run and construct multiaccess and dichotomous identification keys.

Saxifraga tridactylites in Perthshire

PETER CRAMB

Although fairly common in southern Britain, Rue-leaved Saxifrage (*Saxifraga tridactylites*) is rare in Scotland, particularly in inland areas.

In Perthshire one site, Tulach Hill (VC 88), is recorded in the *Checklist of the plants of Perthshire* (Smith *et al* 1992).

I first became interested in this species in 1997 when, by chance, I found a colony growing on ledges at the base of a limestone crag near Strathtummel and about 5km south west of Tulach Hill. In 1998 I decided to undertake a systematic search for more sites. In particular, I tried to re-locate a record for VC 89 in the *Flora of Perthshire* (White 1898) described as "banks of the Garry below Blair Athole"

Using a geological map to identify where limestone exposure was likely, I first searched the south bank of the Garry from Blair Atholl for about 2½ km downstream. There was no sign of *S. tridactylites*. A similar search on the north bank was, however, rewarded with the discovery of small colonies on two limestone rocks on the river bank about 2km below Blair Atholl, close to where the A9 crosses the river. The VC 89 record was thus re-instated in the centenary of White's *Flora*!

I subsequently found a further site on a small area of sugar limestone on the edge of Allean Forrest. This colony contained about 1,000 plants and was roughly midway between the Strathtummel site and Tulach Hill

Table 1 *Saxifraga tridactylites*: summary of currently known sites in Perthshire

| SITE | VC | ALTITUDE M | ESTIMATED POPULATION 1998 | HABITAT |
|----------------|----|---------------|---------------------------------|--|
| Tulach Hill | 88 | 400 | Several thousand | Limestone Pavement & Sugar limestone |
| Strathtummel | 88 | 250 | c.500 | Limestone Rocks |
| Allean Forrest | 88 | 400 | c.1000 | Sugar Limestone |
| Blair Atholl | 89 | 120 | c.80 | Limestone Rocks |

It will be seen that all the sites are on some form of limestone exposure. While in southern Britain *S. tridactylites* is found in a wide range of habitats, its greater selectivity in Perthshire seems to indicate that, as with other species, its requirements are more specific towards the edge of its range.

Acknowledgement

I am very grateful to Ros Smith for her helpful comments on this note.

References

- Smith, RAH, Stewart, NF, Taylor, NW & Thomas, RE (1992). *Checklist of the plants of Perthshire*. Perthshire Society of Natural Science.
White, FBW (1898). *Flora of Perthshire*. Perthshire Society of Natural Science.

Various Hawthorns

CLIVE DIXON

A few years ago, when botanising in my local area I came across a hawthorn which I considered to be *Crataegus laevigata* (Midland Hawthorn). On checking the VC flora (McKean 1989) I found that this was a "rare" plant, so I sent a sample to Douglas McKean, the Recorder for Midlothian (VC 83). He replied with some interesting news. After checking the herbarium specimens it was discovered that material labelled *C. laevigata* was in fact, like my specimen, the hybrid *C. x media* (*C. laevigata* x *C. monogyna*: Midland x 'Common' Hawthorn).

So the challenge was on to find *C. laevigata* in the Lothians. I have seen more hybrids but so far no Midland Hawthorn. However, I did find a strange looking hawthorn in VC 83 which D McKean identified as *C. heterophylla* (Various-leaved Hawthorn) a new vice-county record. This rare species is native in the Caucasus mountains and is established in Middlesex and Surrey.

The striking point with regard to identification is that the leaves are concave upwards, in terms of analogy, cupping of hands. Let us not forget the 'Various-leaved' leaves. These range from the vestigial to as large as those of *C. laevigata* (Fig 1 x ½). The fruits are superficially different (personal observation). They are larger than in the species mentioned above and the sepals are spreading unlike those of *C. monogyna* which are appressed.

Although more than 10 species are keyed out by Stace (1991), many more are grown in gardens. The *European Garden Flora* (1995) keys out 47 species which are commercially available throughout Europe. About 100 species are known from the old world and several hundred from North America. There is therefore the potential for escape and perhaps some are already growing 'in the wild'. D McKean recommends the above flora for identifying those alien *Crataegus* spp.

As to habitat, the first site was a clearing in semi-natural woodland. Subsequently I made a record in Lanarkshire (VC 77)(NCR) on mine-spoil grassland which just happens to be rich in flora including *Gymnadenia conopsea* (Fragrant Orchid). My third site, back in VC 83, seemed to be part of an old hedgerow. All the plants found so far have been mature scrub, over 8ft tall.

I think that the cupping of the leaves is a very distinctive feature which is easy to spot. When I notified Peter Macpherson of the record for Lanarkshire I described the cupping and within a month he had found another such tree in a different part of VC 77. Material from this tree was brought to the 1997 Scottish Annual Meeting where the identification was confirmed.

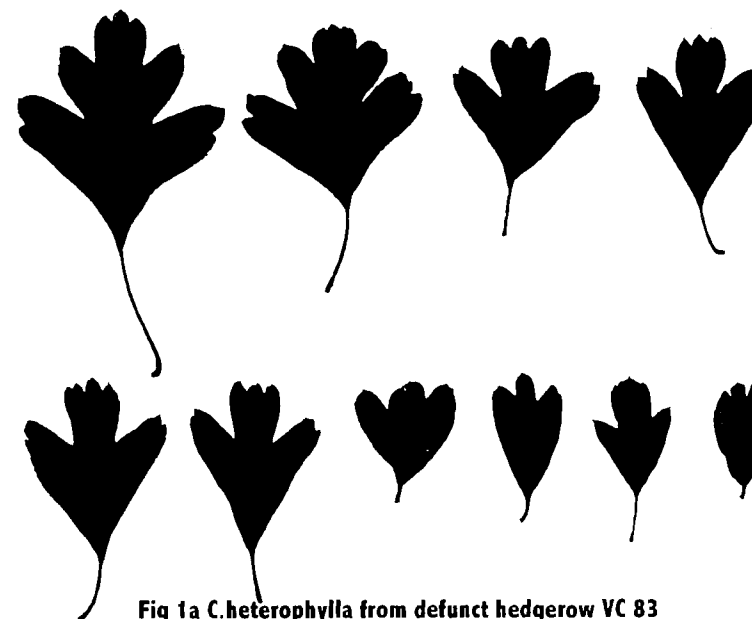


Fig 1a *C. heterophylla* from defunct hedgerow VC 83

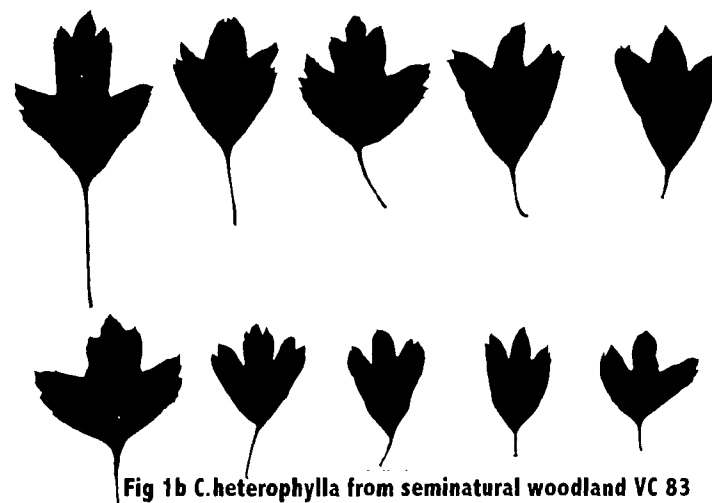


Fig 1b *C. heterophylla* from seminatural woodland VC 83

It is probably one of those species that is overlooked, so the next time you see a hawthorn I suggest that you inspect it closely.

Another point in this connection relates to the fact that D McKean has identified a further hawthorn in the herbarium. Found on a moorland in Wester Ross, *C. pinnatifida* var. *major* is probably new to the 'wild' in the British Isles.

References

McKean, DR (1989). *A Checklist of the Flowering Plants and ferns of Midlothian*. Botanical Society of Edinburgh.
Stace, CA (1991). *New Flora of the British Isles*. Cambridge University Press.