

BSBI

2000

Scottish Newsletter

No 22



*Gnaphalium
norvegicum*

BSBI SCOTTISH NEWSLETTER

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Editorial

We are pleased that more contributors are now sending material on disc and would appreciate it if all would ensure that their copy conforms to the in-house style.

It was a nice gesture of the authors to dedicate *A Flora of Tiree, Gunna and Coll* to Mrs Joan Clark (1908-1999).

Thinking of the late Hugh Lang, we thought it appropriate to have a mountain plant on the front cover on this issue. The illustration of *Gnaphalium norvegicum* (Highland Cudweed) was drawn by Elspeth Lindsay from a slide taken on Coire Ardair.

Having learned of Barbara's "bugbears" in 1998, we encouraged Mrs Hogarth to write the article in the current issue indicating what she regarded as the real value of plant recording in Angus.

The attendance of the Perrings with their bookstalls at our Annual Meetings has been much appreciated and we hope that they will continue to come north in their personal capacities. We understand that the new BSBI Publications (Summerfield Books) will have a presence at this year's Annual Meeting in Edinburgh.

Recording for Atlas 2000 may have been completed, but the Editors' work on this *Newsletter* has been interspersed with checking the Verification and Discrepancy Lists — and latterly the resurrected Vice-comital Census Catalogue!

As a result of the invitation in *BSBI News* for non-Scottish members to receive the *Scottish Newsletter*, we welcome a number of new subscribers and hope they will find it of interest.

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Chairman's Remarks

GORDON ROTHERO

So we are into the new millennium and the eponymous Atlas project reaches its final stages. I have to admit to more than a small amount of initial scepticism but now have to admire the vision of others. The coverage in the UK has been truly remarkable, with records from all hectads apart from a few inconvenient islands. This is a tribute to the drive of David Pearman and his team and to the hard work of the VC recorders and their helpers, particularly in Scotland where we are thin on a not always very accessible ground. Part of the spin-off of the Atlas project has been to encourage more recorders to computerise their data, and, though this process is still alien to some, it is probably inexorable. Current work by Alex Lockton on the Threatened Plant Database, the setting up of local records centres and the prospect of a national Biodiversity Network means that botanical data on your patch will be computerised by somebody somewhere and used by somebody else. The best means of quality control is the knowledge which you have and being involved will ensure 'good' records and probably bring in many more records in an accessible form.

Apart from the odd bit of recording, not being a Recorder has meant that the Atlas 2000 work has rather passed me by. With Bernard Thompson removing from Argyll to the dourer climate of Perthshire this has changed and writing this piece gives me the opportunity to pay tribute to his reign as recorder for VC 98. There cannot be many new recorders who receive such a well-ordered legacy and his patient, methodical coverage of the area has lifted Argyll out of the botanical dark ages. I shall just need to build a small extension to my 'study' to cope with all the material. On a less happy note, it was sad to hear of the death of Hugh Lang. When I first moved up to Scotland I met Hugh on my first field meeting and his tall frame, idiosyncratic approach and pockets full of tiny scraps of plants made a marked impression — here was a breed apart.

The new Scottish Parliament has found enough to occupy itself without turning its attention to the protection of wildlife sites so we still do not know the full outcome of the review "People and Nature", the future of SSSIs, to which the BSBI responded. The worry is that only those sites with an EU designation will be sacrosanct and we need to be vigilant. Scotland is to get its first National Parks in Loch Lomond and the Trossachs and in the Cairngorms. The consultation stage of the enabling legislation is now with us but there is little of direct interest to the BSBI in this 'umbrella' bill, which allows the Parliament to set up the Parks. Of more interest will be the legislation to set up the individual Parks themselves as the balance of interest here will set the tone for the work of the Park and the primacy of conservation within them.

Introduction

The 1999 Scottish Annual Meeting returned to the University of Stirling, five years after our first visit. This is a popular venue, although the laboratory space for the exhibits is rather limited. However there were about 20 interesting exhibits, including Alison Rutherford's large living Cape-gooseberry with edible fruits, and Barbara Hogarth's well displayed collection of floral stamps from around the world. This was the Perrings' last year of book sales, and they showed the complete set of publication lists from 1976 to 1999. Richard Thomas was the local organiser and he helped us find our way to the various rooms set aside for our use. He also gave the afternoon lecture on 'Mountain Plants in Perthshire' which attracted a large audience. The evening supper and slide show in the Court Room were also well supported. Although Hugh Lang was too ill to attend he did send slides. We shall miss his humorous contributions to the slide show.

Scottish VC Recorders Meeting

Peter Macpherson was in the chair. There was a total attendance of 41, of whom 37 were VC Recorders. Apologies were given from Trevor Dines who had to attend the Irish meeting at short notice. David Pearman gave advice concerning the discrepancy lists which recorders should examine for Atlas 2000. Decisions must be made about doubtful species. First records for aliens are required. The data base closes at the end of April, checking during May, and final list will be sent in May. The publisher has not yet been chosen; draft pages have been produced and the launch will be in 2002. The Threatened Plants Action Plan should involve recorders - there may be field meetings to record rare plants. Chris Preston thanked everyone for their efforts for the Atlas. Mary Briggs mentioned the importance of first records. David McCosh for the Vice-comital Census Catalogue asked people to check historical records. A list of doubtful records may appear in the Scottish Newsletter so that wider response can be gained. The final check will be May or June. Chris Sydes spoke on Local Biodiversity Action Plans and appealed to the BSBI to get involved. Allan Stirling mentioned that records of *Lysimachia punctata* may in fact be *L. verticillaris* wrongly identified.

Regional Meeting

The Annual General Meeting for the BSNI membership resident in Scotland had an attendance of 60. Peter Macpherson (Chairman) welcomed those attending, in particular those present for the first time and Mrs Mary Briggs,

BSBI President. He then gave a report on the topics discussed and actions taken by the Committee for Scotland during the past year. Keith Watson reported on the Field Meetings held during 1999 and commented on future venues. A reminder was given that the next Scottish Annual Meeting would be held in Edinburgh.

Lecture

Richard Thomas, Recorder for VC 88 gave the afternoon talk entitled "Mountain Plants in Perthshire". Perthshire has many claims to botanical fame. One can list its native pinewoods at Rannoch and elsewhere, its tallest British trees at Dunkeld, its beech hedge at Meikleour and its Fortingall yew. But its main claim would generally be held to be its mountain flowers. When one adds in the superb mountain views and the healthy exercise involved, then studying the mountain flora is supremely rewarding.

Sadly it has to be admitted that this flora is an impoverished Scandinavian one. Our mountains are less high, less extensive and have less of the botanically favoured calcareous rock. The plants are subject to a harsher environment due to the freezing and thawing in our rapidly alternating weather cycles which strip off protective covers of snow. And sheep nibble indiscriminately, leaving the choicest vegetation to crags and cliff faces and burn-sides. But of all Scottish mountains the Breadalbanes and surrounding mountains of Perthshire are perhaps the most-favoured by plants because of the extensive outcrops of calcareous mica-schist which weather continuously to a mineral rich soil.

A visit to any Breadalbane hill will yield the common calcicoles and show their special adaptations to mountain existence - cushion plants, hairiness, vivipary, colourful and large flowers. In the south, Ben Chonzie harbours Hairy Stonecrop (*Sedum villosum*) and Scottish Asphodel (*Tofieldia pusilla*). Mountain Pansy (*Viola lutea*) comes in some striking purple and yellow colour variations. Saxifrages are common; Purple Saxifrage (*Saxifraga oppositifolia*) is particularly attractive draping itself over rock and at its best in May before botanists are out and about. Many ferns, willows and sedges can also be seen.

As one travels from Ben Lui in the west via Glen Lyon or Glen Lochay in the centre to Ben Lawers further east one should find all the basic montane flora and the occasional rarity: plants such as Purple Oxytropis (*Oxytropis halleri*), several reticulate willows including Downy Willow (*Salix lapponum*) and Net-leaved Willow (*Salix reticulata*), the ferns Mountain Bladder Fern (*Cystopteris montana*) and Alpine Woodsia (*Woodsia alpina*) present in some quantity on some hills, Mountain Avens (*Dryas octopetala*) rarely in quantity so always a prize find, and Alpine Bartsia (*Bartsia alpina*) and Alpine Forget-me-not

(*Myosotis alpestris*) sharing their British distribution with Upper Teesdale. Ben Lawers is probably the most famous montane site in Britain. It has not only such well-known (and legally protected) plants as Drooping Saxifrage (*Saxifraga cernua*) and the annual Snow Gentian (*Gentiana nivalis*) but also a long list of rare rushes, sedges and others which put the site alongside Upper Teesdale and the Lizard as botanical meccas.

The plants lost over the last century or two make sad reading - of montane plants certainly Arctic Bramble (*Rubus arcticus*) and possibly Alpine Cotton Grass (*Trichophorum alpinum*). The conservation of what we now have is vital. It is also nice to speculate on what could be. Snowdon Lily (*Lloydia serotina*) is now, in Britain, only in Snowdonia but was possibly here at the end of the Ice Ages. And Ghost Orchid (*Epipogium aphyllum*), unknown in Scotland, grows now in birch woodland amongst typical Scottish plants in arctic Sweden. Now there's a hope!

Abstracts of Exhibits

Some Ayrshire (VC 75) Records 1999

John Blane

The exhibit displayed *Scutellaria minor* (Lesser Skullcap) recorded on 26th August at Pennhapple Reservoir, the first confirmed record and site for many years in Ayrshire.

Also shown was a dead spike of *Goodyera repens* (Creeping Lady's-tresses) found below *Pinus sylvestris* in Darnley Plantation, Troon on 23rd September 1999.

Ripe fruits of *Castanea sativa* (Sweet Chestnut) collected on 4th November, 1999 near Oswald Bridge, Auchincruive generated interest.

Atriplex on inland roads in Berwickshire, VC 81

Michael Braithwaite
& Luke Gaskell

Atriplex prostrata (Spear-leaved Orache) was only known in VC 81 near the sea until 1993 when it was found near Coldstream. It is now widely established along the main roads in VC 81 and also in VC 80, but has not spread to other habitats.

Atriplex littoralis (Grass-leaved Orache) was not known in VC 81 until 1998 when it was found near Duns. Five more stations were added in 1999. It is found along main roads, but not the major trunk routes. Further spread is predicted.

Atlas 2000 - Berwickshire (VC 81) - The Results

Michael Braithwaite

A checklist of Berwickshire was published in 1990. Since then, 196 'Atlas 2000' taxa have been added to the flora of which 58 are native. The additional native taxa are mainly critical taxa and hybrids. The six new native 'full species' are all slightly critical, with look-alikes that occur more frequently in the VC. The 138 alien taxa added, including 65 considered to be 'established', reflect the greater attention paid to aliens and their habitats, including the wider policies of the larger houses. 1004 'Atlas 2000' taxa are currently recognised as extant in VC 81, 685 native and 319 alien.

Red Data Book *Alchemillas* from Berwickshire

Michael Braithwaite

A large colony of *Alchemilla glaucescens* was found on the Berwickshire coast in the autumn of 1999 in precipitous species-rich limestone grassland. This species had already been known in Berwickshire since 1982 near Chirnside, but its status was in doubt. Both colonies are now considered native. Mr P. Lusby and Dr S.M. Walters both consider that the plants now found on the coast, but not the Chirnside plants, differ from typical material of this species, and wish to examine material collected in summer.

East Sutherland and Caithness Plants

Ken Butler

Statistics showed the effect of a BSBI meeting on the records for the East Sutherland vice-county. The total of mappable dots rose from 11,044 to 12,426. The proportion of modern records rose from 28% to 60%.

The Caithness records at the close of the season were 9,265 mappable records, of which 41% are modern and 51% are '70 to '87.

A specimen was shown of *Equisetum x rothmaleri* at a new site near Tongue, VC 108.

Three specimens were shown of *Dryopteris expansa* from lowland sites - one close to a seashore - in East Sutherland.

Plant Records from Selkirkshire (VC 79), 1999

RWM Corner

The following species were exhibited from VC 79: *Ornithopus perpusillus* (Bird's-foot) (second record) from a forestry track, a habitat in which it is increasing generally. *Eleogiton fluitans* (Floating Club-rush) (first record), which appears to be extinct at all its previously known sites in the Lothians and Borders and *Scrophularia umbrosa* (first record), which has extended its range upstream on the River Tweed where it is locally common.

Plant Records from Roxburgh (VC 80), 1999

RWM Corner

Species from VC 80 were *Calamagrostis canescens* (Purple Small-reed) (third extant record), where it was abundant in a small fen in an area of blanket conifer afforestation, *Euonymus latifolius* (Broad-leaved Spindle) (first record) and probably bird sown from a neighbouring estate, *Fragaria moschata* (Hautbois Strawberry) (first record) well established as a relic of cultivation, *Hedera colchica* (Persian Ivy) (first record) long established as a railway species, *Rumex hydrolapathum* (Water Dock) (first record) discovered by Luke Gaskell by the River Tweed, *Rumex x abortivus* a hybrid dock (first record) with both parents one of which (*Rumex conglomeratus*) is a rare species in the vice-county, *Rumex x dufftii* a hybrid dock (first record) with both parents, *Sagina maritima* (Sea Pearlwort) (first record) discovered by Luke Gaskell and an addition to the inland halophyte flora of the vice-county and *Symphytum asperum* (Rough Comfrey) (first record) discovered by Henry Noltie in 1992 where it still occurs as a vigorous roadside clump.

Esthwaite Water-weed

Angela Darwell

Esthwaite Water-weed (*Hydrilla verticillata*) has been rediscovered in Britain after an absence of almost 60 years. First record for Scotland.

What are friends for?

Pat and Ian Evans

Once again, we are indebted to visiting botanists and friends for some exciting finds in West Sutherland (VC 108) in 1999. Gordon Rothero takes pride of place with *Luzula arcuata* on Canisp, *Saxifraga nivalis* on Suilven and *Orthilia secunda* near Cam Loch. BSBI members Miss C. Ahrens and Miss MF Myles found *Anacamptis pyramidalis* at Oldshoremore, and a member of the Assynt Field Club told us about *Convolvulus arvensis* in her garden at Lochinver. Meanwhile, we managed new locations for *Calamagrostis epigejos* on Loch Assynt and *Carex otrubae* on Soyea Island.

Unsquare bashing in VC 103

Lynne Farrell

The islets off Mull do not easily fit into squares for recording purposes, but do provide rewarding ground. Five of the smaller islands - Staffa, Little Colonsay, Gometra, Inchkenneth and Eorsa, were visited by boat during the period 20 to 25 June 1999. Help with recording was received from Gordon Rothero, Jean Millar, Stephen Ward, Ro Scott, David Hawker, Imogen Crawford, and several Mullachs. New sites were found for *Orobancha alba*, *Vicia orobus* and *Sorbus rupicola*. Many thousands of plants of *Mertensia maritima* were located on the western shores of Little Colonsay. *Ruppia*

maritima was found on the N.W. end of Gometra, and *Pimpinella saxifraga* on the S.E. slopes of Inchkenneth. A flushed area on the north-side of Eorsa yielded a good stand of *Juncus maritimus*, with many chrysalises and emerging moths as an additional feature.

Some Cumbrian Records

G Halliday

Specimens were exhibited of the following, all new to Cumbria: *Chenopodium strictum* (VC 70), *Euphorbia platyphyllos* (VC 70), *Echinochloa colona* (VC 69), *Scilla messenaica* (VC 69), otherwise known in Britain only from N.Somerset and W. Suffolk, *Callitriche truncata* (VC 69) at a new northern limit and *Betula nana* (VC 70), otherwise known in England from only single localities in S.Northumberland and Durham.

What is *Lysimachia punctata* L.?

G Halliday

The Exhibit focussed on the recent paper by H McAllister (*Watsonia* 1999, 22, 279-281) in which he suggested that most British plants of "*L. punctata*" are best assigned to the neglected *L. verticillaris* Sprengel, of eastern Turkey and southern Asia. However, an examination of some British specimens and a few Turkish ones identified as *L. verticillaris* appeared to show that a number of characters deemed by McAllister to be diagnostic of the latter were absent in all the specimens, namely longer petioles, seed production and branched pedicels. The British specimens appeared to have slightly larger flowers. This suggests that the complex urgently requires further study and a note on the subject is in preparation in collaboration with AO Chater and CD Preston.

Wildlife Sites System

Alison Hannah

Stirling is now the headquarters for the Scottish Wildlife Action Programme, surveying and advising on SWT Wildlife Sites.

Philately and Flowers

Barbara Hogarth

Two posters presenting sets of postage stamps with designs illustrating wild flowers. The themes depicted included conservation, protected species, alpine plants and medicinal plants.

New & Interesting Plants of Scotland/Midlothian

Douglas McKean

The exhibit consisted of about a dozen herbarium specimens mainly in the nature of being locally rare but mainly casual. *Apera spica-venti* for instance

had not been found in the Edinburgh area for a number of years and *Agrostis castellana* seems new or overlooked. The specimen of *Salix triandra* was from a large tree not recorded in the Lothians for many years.

Aberrant Plant Forms, Lanarkshire

P Macpherson

The exhibit depicted unusual forms of five common plants seen in Lanarkshire (VC 77) during the 1999 recording season. Taller and more branched plants of Self Heal (*Prunella vulgaris*) than usual were seen during the year, that exhibited being 24" high and 10" wide. In the neighbourhood of slag heaps near Leadhills there were carpets of dwarf Water Avens (*Geum rivale*), many double flowered and/ or proliferative. Over a limited area of Green Lowther Hill at c.700m there were plants of Heath Rush (*Juncus squarrosus*) with spherical inflorescences. A sedge looked so unusual that I assumed it to be a hybrid. However, the referee (AO Chater) determined it as a monstrous form of Glaucous Sedge (*Carex flacca*). Finally, in August, two-headed Red Clovers (*Trifolium pratense*) were seen near the margin of a pond NE of Douglas — during the eclipse!

Interesting Records from N Ebudes (VC 104), 1999

CW Murray

All the exhibits are new 10km.square records, seen while revisiting for 'Atlas 2000' - though the *Cerastium arctium* arrived in the post, after it was found in two places in the Blaven hills, the second having *Draba norvegica*, also new, as well.

Pyrola minor turned up on the VC Recorders 'home ground' while looking for an old record of *Rubus saxatile*. Another old record (CN Page 1971) on the far side of the 'home square', for *Equisetum telmateia* was tracked down - and growing with it was a larger than usual *E. variegatum*. The *Epilobium x rivulare* came from a streamside on Eigg and is new to VC 104.

BSBI Publications 1976 - 1999

F & M Perring

A display of publication lists from 1976 - 1999.

The Mysterious Solanums

Alison Rutherford

Living examples of Potato, Cape-gooseberry and Tomato found established in VC 99 were exhibited - the latter two in fruit. It is believed that the Cape-gooseberry (*Physalis peruviana*) is new to Scotland. Seedlings appeared at the coast for the second year running, as well as on the sands of Troon, Ayrshire (VC 75) and also inland in VC 99 at a wall-foot. It was hoped that people with coastal tomatoes in their areas would look out for this plant.

C.A.R.S.E -

Lesley Brown

The Biological Records Centre for Central Scotland

Supper and Slides

After supper, slides were shown by six members as follows:

RWM Corner	Border Plants
L Farrell	Unsquare bashing in VC 103
BG Hogarth	Flowers in Angus
H Lang	(Shown by Rod Corner) Galloway & Greenland Plants + <i>Arabis alpina</i> in Skye
RJ Pankhurst	Outer Hebrides 1999
R Scott	Mull Islands & E Ross Field Meetings

BSBI Committee for Scotland

The following is the composition of the Committee from Nov 1999-Nov 2000
Chairman - GP Rothero : Secretary/Treasurer - Miss L Farrell: Field Meetings Secretary - K Watson : Minutes Secretary - JW McIntosh: Meetings Secretary - Mrs EW Stewart : Members of Committee - PS Lusby, Drs P Macpherson, CJ Miles and MF Watson.

Representing SNH - Dr C Sydes: Representing BSS - J Lyth.

At the AGM on 4th Nov 2000, K Watson, J McIntosh and Mrs EW Stewart retire, the last two being eligible for re-election. Nominations for the vacancies, signed by two members of the Society normally resident in, or records 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 8RR by 30th September 2000.

L Farrell Hon Secretary.

Scottish Field Meetings 2000

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

June 3	Hareheugh Crag, Berwicks. ME Braithwaite
June 10	Glen Gavel, Lanarks. P Macpherson
Aug 5	Rannoch Moor, Mid Perth. PS Lusby
Aug 12/13	Spean Bridge, Westerness. GP Rothero

In Memorium - Joan W Clark (Rust) 1908-99

CW MURRAY

I first met Joan Clark in June 1975, when Mary McCallum Webster held a Wild Flower Society (WFS) "Weekend" on Skye and asked me to join them one evening at Ullinish, when in conversation with the lady on my right, we discovered a mutual interest in North Uist.

By 1977 (the year she joined the BSBI) she was calling at Prabost on her way to or from Uist and in 1978 came to both the Broadford and Barra Field Meetings. I remember an expedition on the way home from Barra, when we explored a little visited area of N. Uist to the north of Loch Eport with the help of her son-in-law's boat. We were following up an old record of *Ajuga pyramidalis* (Pyramidal Bugle) but had no success.

In 1976 I had made a checklist for N. Uist (my own records went back to 1950's) and this became a joint effort, with Mrs Clark making many more records from the east side of the island, mine having been mainly from the west. It ended up incorporated in the *Flora of the Outer Hebrides* (1991) to which she had contributed, with Ian MacDonald the Gaelic names for the plants.

Before we met, she had been sending (early 1970's) *Potamogeton* from N. Uist to Dandy for identification. So had I, but not so thoroughly. When work started on the *Taraxacum* handbook, she collected specimens over a wider area, Uists, VC 103, VC 104 and her own area round Onich.

Joan Clark wasn't always a botanist, although she must always have liked flowers. Her garden was "special" and included out of the ordinary ferns and sedges. Before that, in the 1960s, she had won prizes at Rock Garden Shows.

She was born on 6 10 1908 at Benholm (with castle attached!) south of Inverbervie, the only child of her father's second marriage. He was City Architect for Aberdeen and the Rusts came from Drunock, Deeside. When she was 10 her father died and she and her mother moved south to relatives in Worthing Sussex. There she continued her education until sent to "Finishing School" in Switzerland, where she became fluent in German and French. She then joined the Foreign Office in London and was sent from there to Paris, then back to London.

While in London she joined the SNP (almost a founder member, and by the 1990s the oldest one left!) whose branch secretary was Alastair Clark (Mull ancestry). They were married in April 1935 and moved to Glasgow, but when the war started her husband's trade as furrier became redundant and they

decided to take over the Loch Leven Hotel. In 1940 it had its own farm and "Tigh Solais" was one of the farm workers' cottages.

After her husband's death in 1959 she moved into the above cottage and took up other interests. At some date prior to 1975 she must have joined the WFS and Clive Jermy remembers her on a *Carex* course at Kindrogan in 1972. Subsequently she attended other courses up to the 1980's and also went to John Raven's field weeks at Ardtornish

1978 saw the publication of Mary McCallum Webster's "Flora" for which Joan Clark did the typing, and would have increased her botanical knowledge on the way. That same year she was persuaded to become recorder for VC 103, a post she held for 10 years (until she was 80!) ending with an impressive list of "additions" (many her own) published in *Watsonia* 8 (1990).

The next ploy was the list of Gaelic plant names made over the years from "Durelly" and other publications and used as above in the *Flora of the Outer Hebrides*, among others. Gaelic was one of her Scottish interests and although never a fluent speaker she passed the O-grade in the 1970s. All this work culminated, just too late (1999) in the publication of *Ainmean Gaidhlig Lussan*, again with the collaboration of Ian MacDonald of the Gaelic Books Council.

She had also been a hill walker and was one of the four with proper boots in the WFS party inspecting *Arabis alpina* in 1975.

The family wreath at her funeral was in the form of the Scottish Saltire, made up in blue and white flowers — an appropriate tribute to her love of plants and of Scotland.

In Memorium - Hugh A Lang 1920-99

R W M CORNER

With the death of Dr Hugh Lang, Scotland has lost one of her best known and enthusiastic field botanists and an expert photographer.

He spent 38 years as a family doctor in Galloway and knew the coastline and hills and its plants better than anyone. He had great strength and stamina as well as an excellent eye for plants and sought out the wildest and most remote terrain. It was inevitable that he would turn up rarities. His most remarkable find was that of *Artemisia norvegica* (Norwegian Mugwort) in East Ross-shire; only its third British site. He was at home in the hills and it was natural for him to join in searches for those lost in the area. He put these rescue

missions on a firm basis by founding the Galloway Mountain Rescue Team in 1975 and he became its first Chairman.

He served on the BSBI Committee for Scotland from 1984-1990.

On retirement he was able to visit the high arctic regions, of Canada and Greenland in particular, camping and trekking. He loved the arctic environment and the history of its exploration and made 24 successive annual visits there. He photographed and made records and collections of the flora being instrumental in making one addition to the Greenland flora. He also recorded ancient eskimo sites for which he had a very good eye. He was a loyal and steadfast companion in the field and life was never dull when one was with him. His unique sense of humour was well known to those on field meetings and of course at the annual slide show when he could reduce his audience to helpless laughter. He will be sorely missed.

Centaurium littorale CD PRESTON & DA PEARMAN as a Saltmarsh Species in Scotland

Centaurium littorale (Seaside Centaury) is a nationally scarce species which is found in coastal localities from NE Scotland to S Wales; it is absent from the north coast of Scotland and the Northern Isles, and from the south coast of England. In *Scarce plants of Britain* (Stewart *et al.* 1994) it was described as "confined to sandy areas near the sea, most usually associated with large areas of relatively undisturbed sand dune". In 1998 and 1999 BSBI Atlas 2000 meetings were held in NW Scotland and NE Scotland, in two areas where there were several old records of *C. littorale*. In attempting to refine this species at its old localities we realised that it is not confined to sand dunes, but also occurs at the upper end of salt marshes. (We distinguish salt marshes from sand dunes on the basis of the substrate rather than vegetation).

In July 1998 we looked at sites in the Ardnamurchan-Moidart area in VC 97. Here there were records of *C. littorale* from 4 10-km squares, all made before 1970:

NM46: Kilchoan, Ardnamurchan, M. McCallum Webster, 6.6.1969.

NM66: Arevegaig, Kenra Bay, R. Mackechnie & E.C. Wallace, 5.7.1950, E.

NM67: Shielfoot (ms notes by R. Mackechnie in GLAM, no further details known).

Ardtoe, M. McCallum Webster, 6.6.1969.

NM77: Salt marsh, Loch Moidart, S.M. Macvicar, 12.9.1895, E.

These are the most northerly records on the west coast of Britain. All these sites are sheltered bays with grazed saltmarsh but no sand dunes. We refound *C. littorale* at two of the sites. At Shielfoot (NM 658714) it grew in a thin stand of *Juncus maritimus* at a high level of the saltmarsh, with *Carex extensa*, *C. panicea*, *C. viridula* subsp. *viridula*, *Glaux maritima*, *Leontodon autumnalis* var. *salina* (the small, more or less glabrous variant of this species), *Plantago maritima* and *Schoenus nigricans*. At Ardtoe (NM 645698, though the saltmarsh extends into NM 67) we found it on top of small mounds or around the edge of larger mounds in the heavily grazed saltmarsh turf, again in a thin stand of *Juncus maritimus* and amongst abundant *Carex panicea*. Other associates included *Calluna vulgaris*, *Carex viridula* subsp. *viridula*, *Festuca rubra*, *Molinia caerulea*, *Plantago coronopus* and *P. maritima*.

Hunting for *Centaurium littorale* in the west coast saltmarshes was hard work. At both Ardtoe and Shielfoot we only found very small colonies, restricted to a small area of saltmarsh. At Ardtoe, in particular, it was difficult to spot *C. littorale* in the heavily grazed turf, especially as tiny plants of *Armeria maritima* with only one or two flowers continually caught the eye. It would be almost impossible to spot *C. littorale* before it came into flower, or if the inflorescences had been eaten off. Despite much searching, we failed to refine *C. littorale* at Kilchoan, NM 48.64 or at the head of Loch Moidart at Ardmolich, NM 70.72., nor could we discover it at Glenuig, NM 672773.

Further south on the west coast, in Main Argyll (VC 98), *C. littorale* occurs in "short grassland at the fringe of salt-marsh" (Rothero & Thompson 1994).

In August 1999 the BSBI meeting was based in Golspie. There is a concentration of records of *C. littorale* (a few recent, rather more pre-1970) around the Moray Firth and Dornoch Firth in Easternness (VC. 96), E. Ross (VC 106) and E. Sutherland (VC 107). Many of these populations are undoubtedly on sand dunes, the only habitat given for the species by Duncan (1980) and Kenworthy (1976). At Dornoch Links, VC 107 (NH 79.88 and 80.88), for example, we found it in open dune turf with numerous associates including *Armeria maritima*, *Carex extensa*, *C. flacca*, *Euphrasia officinalis* agg., *Festuca rubra*, *Glaux maritima*, *Juncus ambiguus*, *J. gerardii*, *Linum catharticum*, *Odontites vernus* subsp. *litoralis*, *Plantago maritima*, *Sagina maritima*, *S. nodosa*, *Triglochin maritimum* and *T. palustre*. Near the Aerodrome there was variation in flower colour, with plants with the normal pink-flowers and plants with flesh-coloured flowers growing together. At one site here, at NH 802883, it grew close to a small colony of the scarce sedge *Carex maritima*.

In addition to the sand dune habitat, *C. littorale* also grows in saltmarsh habitats near Golspie, VC 107. At Balblair (NM 803974) small plants grew on a track at the top of the saltmarsh by Loch Fleet, with *Euphrasia foulaensis*, *Glaux maritima*, *Juncus gerardii*, *Odontites vernus* subsp. *litoralis*, *Sagina* sp., *Trifolium repens* and *Veronica arvensis*, and there were larger plants in short turf slightly lower on the marsh, with *Agrostis stolonifera*, *Blysmus rufus*, *Carex panicea*, *Glaux maritima*, *Juncus gerardii*, *Odontites vernus* subsp. *litoralis*, *Plantago maritima* and *Triglochin maritimum*. Another colony in saltmarsh at the west end of The Mound, Golspie, at the landward end of Loch Fleet (NM770979) grew with associates which suggest greater fresh water influence (*Agrostis stolonifera*, *Blysmus rufus*, *Eleocharis uniglumis*, *Juncus articulatus*, *Plantago maritima*, *Ranunculus flammula*, *Sagina nodosa*, *Senecio aquaticus* and *Triglochin maritimum*). Our impression was that populations of *C. littorale* were larger in the dunes and saltmarshes of the east coast than in the Ardnamurchan-Moidart area, and that some plants were bigger than any seen in the west. Nevertheless, it is difficult to imagine that it could now be "gathered by the common people and put in whisky to drink as bitters", as was supposedly the case in Inverness in the 1840s (McCallum Webster 1978).

In summary, *C. littorale* does occur in upper saltmarsh communities and in NW Scotland it appears to be confined to this habitat. Characteristic associates in saltmarshes include *Carex panicea*, *Glaux maritima* and *Plantago maritima*.

Acknowledgements

We are grateful to Dr T.D. Dines, G.M. Kay, D.J. McCosh and Mrs A.V. Pearman who helped us search for *Centaurium littorale* at some of the sites mentioned above.

References

- Duncan, U.K. 1980. *Flora of East Ross-shire*. Botanical Society of Edinburgh.
- Kenworthy, J.B. comp. & ed. 1976. *John Anthony's Flora of Sutherland*. Botanical Society of Edinburgh.
- McCallum Webster, M. 1978. *Flora of Moray, Nairn & East Inverness*. Aberdeen University Press.
- Rothero, G.P. & Thompson, B.H. 1994. *An annotated checklist of the flowering plants and ferns of Main Argyll*. The Argyll Flora Project, Oban.
- Stewart, A., Pearman, DA. and Preston, CD. 1994. *Scarce plants in Britain*. Joint Nature Conservancy Council, Peterborough.

Polygonatum odoratum - Not a Scottish Plant ME BRAITHWAITE

Scarce Plants in Britain (Stewart *et al* 1994) gives a single Scottish pre 1970 record for *Polygonatum odoratum* (Angular Solomon's-seal). This is based on Dr Charles Stuart's 1871 record of *Convallaria polygonatum* from "Craig's Walls Wood parish of Edrom" in the *History of the Berwick-shire Naturalists Club* vol 6 page 283. This is a synonym of *Polygonatum odoratum*. This places the plant at about NT 843554 in Berwickshire (VC 81) where there was old woodland at that time.

As the note in HBNC records, the only other station near Berwick is at Kyles Craggs in Northumberland (VC 68 Cheviot), where it has been verified as recently as 1969 by Prof. George Swan (*Flora of Northumberland*, Swan 1993).

In view of these records the "Scarce Plants" record was submitted by myself as evidence of the plants former native status in Scotland.

Further evidence is now available. In 1873, J Ferguson recorded *Convallaria multiflorum* as apparently indigenous in an oak wood at White Mire (HBNC 7, 126). This is a synonym of *Polygonatum multiflorum*. This is almost certainly the same as Craig's Walls Wood site and appears to have been visited by Andrew Kelly who wrote the published note. This at least opens a doubt as Andrew Kelly of Lauder was as careful and experienced a botanist as Charles Stuart of Chirnside. (Dr Stuart has his name remembered in *Erica x stuartii* which he found in Connemara, new to science).

I have now had the satisfaction of finding a specimen to settle the matter. This is in the herbarium of Captain F M Norman of Berwick-upon-Tweed and was collected on 25th May 1878 from "Craig Hill Wood, near Sir Geo. Boswell's, Berwickshire". The specimen is small, only 25cm, but on the basis of perianth size and the contraction in the middle of the perianth is clearly *Polygonatum multiflorum*. Moreover the stem appears to be terete.

Polygonatum multiflorum occurs in the area today apparently as an established introduction - wooded bank below West Blanerne, 27th April 1984, AG Long, NT8256; old bank near Eccles, 16th May 1998, ME&PF Braithwaite, NT7541. The Craigs walls Wood plant was almost certainly also introduced.

The garden hybrid between the two species also occurs in Berwickshire as an established introduction.

It seems, therefore, that *Polygonatum odoratum* has no claim to be a Scottish plant.

Acceptance of Records 1953

P MACPHERSON

A letter dated January 1953 written by John R Lee, Author of *The Flora of The Clyde Area* (1933) and "Additions" (1952) has recently come into my possession. In it he commented on recent plant records reported to him by Robert Mackechnie. Lee accepted a number as suitable for a future "additions", but had reservations about accepting others. The following are extracts from the letter. It is interesting to note how the plant distribution and botanical opinion has changed in the intervening years.

Heracleum mantegazzianum. This plant is spreading, I think: but it is still not getting far from cultivation and I hesitate to look upon it as established. The same applies to

Lysimachia punctata Which has been noted in several places, but always (I think) close to gardens.

Veronica filiformis. I am much interested in your note about this. As a first record for Britain your notice of its occurrence on the banks of Ayr should receive special mention but of course it has already appeared on my list; however I will put your record down first.

Rumex aquaticus. This has fairly astonished me! I have always supposed the name to be synonymous with *R. longifolius*; and the plants at Balmaha have been all along looked upon as the latter. What are the distinguishing features of the two?

Orchis purpurella. This, of course, is the same as *O. praetermissa* under which name it is already recorded for Clyde Isles.

Glyceria declinata. What is this? If it is only one of the forms of *G. fluitans* I would be inclined to ignore it as already covered by the records in the book: but if not perhaps it should go in.

Agrostis gigantea. This must surely be a casual, or a new introduction. I don't know the plant at all; and I can't see it in any British list. I am inclined to leave it out.

Well, I have gone over your list and I hope I have not "ruffled" you by my criticisms".

Mackechnie clearly had a better insight into the current nomenclature and the likely future distribution of plants.

More on Tufted Loosestrife

ALAN SHOWLER

I was interested to read of Jackie Muscott's (1999) experiences with Tufted Loosestrife (*Lysimachia thyrsiflora*), since mine have been similar. But mine have been in her afterthought, the Forth and Clyde Canal, where I started looking for it in 1993. I selected a length of canal at Banknock near Kilsyth, simply because it was close to the A80/M80 en route to the Highlands. I identified the plant, or so I thought, and found it elsewhere at sites mentioned in the Perthshire checklist (Smith *et al* 1992). But it was not in flower anywhere and did not look as if it had been or was going to be! Visits continued each year until 1996, when I was very pleased to find it in flower on 13th July. So perhaps it **was** in flower in the Union Canal in the same year? I also saw it in flower again the following year, but this time in southern Sweden where it flowers regularly. On 20th July 1999, amongst 15 small plants by Stormont Loch, I found one in fruit.

References

Muscott, J (1999). Tufted Loosestrife in West Lothian. *BSBI Scottish Newsletter* 21, 28-29.

Smith, RAH, Stewart, NF, Taylor, NW & Thomas, RE (1992). *Checklist of the Plants of Perthshire*. Perthshire Society of Natural Science.

Memories of Alfred Slack

ALAN SHOWLER

I was very sorry to read of the death last year of Alfred Slack. By his death, and that of Olga Stewart, Scotland has lost two great Botanists. I first met him on a field trip to Knoydart and after that I generally called on him each year when I was in Scotland. I enjoyed several outings with him and he also guided me towards a number of plants I might otherwise not have found.

I shall always remember him (with a smile) for his caution. This was particularly linked with what must be two of Britain's least appealing rarities.

The first of these was *Schoenus ferrugineus* (Brown Bog-rush). Having been persuaded to reveal its location on Ben Vrackie, he warned me that if I found this inconspicuous and unattractive plant that "if anyone comes along, sit down and pretend to be having a picnic". (No-one did).

Second on the list is *Poa flexuosa* (Wavy Meadow-grass). Having toiled up Ben Nevis in weather not of the best, we were finally bent over on the scree admiring the object of our quest, a few small bits of grass which any non-botanist would reasonably have said grew in his lawn or front garden, when

suddenly we were surprised by two hillwalkers who enquired if this was a route up the Ben. With a glance into the murk above us, Alf Slack said "No" and indicated the correct direction. I added an explanation of why we were there, pointing to a piece of wet grass. When they had gone I was admonished — "You shouldn't have told them that, you know". Maybe, probably, he was right!

Donations to the RBG Herbarium

DOUGLAS MCKEAN

In April 1999 we were delighted to receive the beautifully curated herbarium of Bernard Thomson then vice-county recorder for Argyll (VC 98). The bulk of this material was collected by him in Argyll and most critical groups have been annotated by specialists. A run down of the collection is as follows:

Asteraceae including *Hieracium* & *Taraxacum* 178; *Salix* 95;
Poaceae 87; *Potamogeton* & *Ruppia* 72; *Brassicaceae* 62;
Carex & *Juncus* 52; miscellaneous 189.

In the autumn of 1999 Scottish Natural Heritage decided to donate its Herbarium of aquatic / bog plants which had been accumulating over the previous 10 years from Olivia Lassièr's Aquatic Macrophyte Surveys throughout Scotland. Several hundred specimens are included in this collection and all the critical material has been verified by specialists (mainly Chris Preston). Lists of these specimens were circulated to the relevant vice-county recorders. It may take a year or two before this collection is eventually processed and incorporated into the herbarium as we have quite a backlog of mounting at present.

Plants in Set Aside Fields

LUKE GASKELL

1998 was an extremely wet year and this has been reflected in some of the plants appearing in natural regeneration set aside in the Borders. In this type of set aside the land cropped for cereals is left fallow the following year. Heavy machinery causing compaction and poorly established crops have meant that grass weeds such as *Poa trivialis* (Rough Meadow-grass) and *Avena fatua* (Wild-oat) have increased, *Matricaria discoidea* (Pineappleweed) and to a lesser extent *Gnaphalium uliginosum* (Marsh Cudweed) and *Odontites vernus* (Red Bartsia) are spreading further from gateways and *Hypericum androsaemum* (Tutsan) and *Epilobium brunnescens* (New Zealand Willowherb) are appearing quite regularly.

One rather extreme case was a field in central Roxburghshire which had grown barley in 1999 and was then treated with weedkiller and fertiliser. The land is south facing, heavy and at about 1000ft. It had three *Juncus* (Rush) species, *Luzula multiflora* (Heath Wood-rush) and more surprisingly, quite a number of thriving tufts of *Isolepis setacea* (Bristle Club-rush), along with a good selection of the more common arable weeds; 55 species in total.

Apart from the point that this sort of land may not be very suitable for cropping in a very wet year, I wonder whether *I. setacea* is being found in arable fields in other parts of Scotland.

Book Review

RICHARD PANKHURST

A Rum Affair, How Botany's 'Piltdown Man' was Unmasked, by Karl Sabbagh, Allen Lane, The Penguin Press, pp ix + 224, 1999, £16.99, ISBN 0-713-99277-8

I have taken on the review of this book with great interest, since I was privileged to know one of the characters portrayed in it, John Raven. In addition, he had shown me the manuscript of his secret report on the falsified records of Prof. Heslop Harrison, and asked me to read it. Although I never met the great HH himself, I was well aware of other personalities in this account, especially the irascible A.J. Wilmott, whose personality was still to be felt in the British Room at the Natural History Museum in London, when it was my turn to be in charge there. During the preparation of the 'Flora of the Outer Hebrides' it was impossible to ignore the erroneous Heslop Harrison records, and we had to decide what to do about them. In fact, the vast proportion of his records seem to have been genuine, even if rather unlocalised and lacking voucher specimens.

Sabbagh's book shows why we now know that records of *Carex bicolor* on Rum were fabricated, presumably by Heslop Harrison. The possibility that the falsification might have been carried out by some other person is not considered. Theories of plant distribution are explained in order to provide a motive, but I cannot say that I find this really convincing. There is a thorough and sympathetic account of John Raven and of what he did to unravel the mystery, but the book is not a biography of Heslop Harrison himself and does not give a complete picture of him. Sabbagh does not take British field botany very seriously and the rather frequent errors in the quoted scientific names are perhaps symptomatic of this.

Sabbagh telephoned me at a late stage of the writing of his book, and he is right when he says (p.185) that I was not too concerned about the whole Heslop Harrison business. However, he was quite wrong to conclude that I found the matter too sensitive. In fact, I thought that the subject matter provided insufficient reason for writing such a book. However, I think it has turned out rather well; not because it exposes an ancient scandal but because it is a readable account of a particularly interesting period in the social history of British field botany. I doubt that there was a "cover-up" as alleged, but rather a general feeling that the fuss about an unfortunate business had best be allowed to die down quietly.

Mountain Meanders

BARBARA HOGARTH

The last year of Atlas 2000 recording and the treat I have been saving for the final push - Angus's mountain flora. To digress briefly - some years ago, doing a stint as Seasonal Ranger at Ben Lawers, I came across the following skit of a favourite childhood poem. Published in the *Scotsman* in 1938 it read

'Up the scheduled mountain
Down the listed glen
We dare not go a'walking
For fear of little men
Little men with badges
Lurking in the rocks
Ruddy little blighters
Wearing tartan socks'

I don't know about the tartan socks but wardens with attitude certainly discouraged botanists from visiting that other botanical mecca, Glen Doll, during the 1980s and much of the 1990s. The NCC seasonal wardens' reports tell of time spent guarding the entrance to Coire Fee to prevent botanists heading for the crags. I am pleased to say that recently things have relaxed and that under the management of Angus Council the rangers are friendly to both general visitors and botanists.

In July 1999, I joined up with a motley group consisting of seven BSBI members (five of these also being members of the London Natural History Society up for a week dedicated to botanising), two SNH staff and two rangers plus dogs. On the first day we traversed the rocky sides of Corrie Sharrock. As the weather was somewhat damp the midges were out to feast. Hoods were donned and deterrent creams were applied. In spite of this and the squeelchiness of the steep terrain we had a splendid day visiting the montane

willow, Mountain Bladder-sedge (*Carex x grahamii*) and Purple Colt's-foot (*Homogyne alpina*) sites.

The following day was much fresher and brighter as a slightly smaller party (SNH staff not being allowed out too often in case they get ideas) toiled up the steep scree-clad slopes to the high crags which fringe Glen Doll. Young peregrines did their best to entertain these strange people who had their heads down peering into nooks and crannies with cameras perched precariously to record such cragbound gems as Mountain Avens (*Dryas octopetala*), Alpine Milk-vetch (*Astragalus alpinus*) and Alpine Fleabane (*Erigeron borealis*). On our descent we were treated to lushly vegetated ledges with Wintergreens (*Pyrola* spp) and Serrated Wintergreen (*Orthila secunda*) and finally to the boulders where Twinflower (*Linnaea borealis*) scrambles through heather and blaeberry.

Corrie Fee had been saved for day three with Woodsias (*Woodsia* spp) and Yellow Oxytropis (*Oxytropis campestris*) sites to be visited. The Fee Burn descends into the Corrie in a series of impressive waterfalls. Here a search for Wilson's Filmy-fern (*Hymenophyllum wilsonii*) proved fruitless but its absence was more than compensated for by the abundance of Globeflower (*Trollius europaeus*), Wood Crane's-bill (*Geranium sylvaticum*) and Melancholy Thistle (*Cirsium helenoides*). Having scrambled over rocks and dodged under dripping overhangs the irony of finding the most photogenic Frog Orchid (*Coeloglossum viride*) on a shelf at shoulder height right beside the path was greeted with good humour. Such is life in the mountains.

Thus I had a few wonderful days of exploring and recording one of the richest areas, in terms of its arctic-alpine flora, in the company of enthusiastic botanists and all this in my vice-county. The rangers - well they did have badges but they weren't lurking. I think that like me they too know a little bit more about the plants on their patch than they did before. As for the tartan socks - impossible to get in the average outdoor equipment shop these days!

Golspie, East Sutherland 3rd--8th August 1999 KEN BUTLER

Eighteen members attended this last opportunity to record for Atlas 2000, some hectads that had been little recorded since the last atlas. The effect was dramatic. The total mappable dots for the Atlas was raised by 1,382. Before the meeting only 28% of the VC records were post 1987, but 60% were afterwards. Thirty seven new vice-county records were made, 21 of garden/ casual species and the remainder species and hybrids of the native flora. New species records included *Pyrola rotundifolia* (Round-leaved

Wintergreen), *Juncus ambiguus* (Frog Rush), *Tragopogon pratensis* ssp. *minor* (Goat's-beard), *Lepidium campestre* (Field Pepperwort) and *Ranunculus fluitans* (River Water-crowfoot). New hybrids included *Dryopteris* x *deweveri*, *Quercus* x *rosacea*, *Rumex* x *hybridus*, *Salix* x *sericans* and *S.* *reichardtii*. An evening excursion to Balblair Wood and the nearby saltmarsh showed off local rarities and a large colony of *Odontites vernus* ssp. *litoralis* (Red Bartsia). To top it out on the last day numerous casuals were found at Helmsdale and the intrepid Trevor Dines found *Anthemis pseudocotula*. new to Britain, by the side of the A9 road.

Hawthorn Re-determination

The 1998 issue of the *Scottish Newsletter* contained an article entitled "Various Hawthorns". We have been informed that those specimens considered to be *Crataegus* x *media* (*C. laevigata* x *C. monogyna*- Midland Hawthorn x Hawthorn) are still regarded as being that taxon, but that those previously identified as *C. heterophylla* (Various -leaved Hawthorn) are now also considered to be the above hybrid (Editors).

Wetland Vegetation Management JOHN MITCHELL at the Loch Lomond National Nature Reserve

Introduction

As part of a three day conference organised by the Royal Society of Edinburgh to mark the half-century of the *National Parks and Access To the Countryside Act (1949)*, an outdoor excursion to Loch Lomond took place on 24th June 1999. In recognition of the work of the Nature Conservancy (Council), which was established by Royal Charter alongside the 1949 Act, delegates visited the Mainland (S) portion of the Loch Lomond National Nature Reserve to see at first hand examples of rehabilitated wetland vegetation. This paper briefly describes three projects undertaken on near derelict agricultural land between 1978-1989 by the NCC in co-operation with Wards Estate. Lying in the flood plain of the River Endrick, the three sites - Wards Low Ground, Twenty Acres Meadow and Aber Bogs - each have different ecological characteristics, together adding appreciably to the diverse wetland flora of the reserve.

Wards Low Ground (NS445879)

Originally marshy haughland, Wards Low Ground was drained and converted

to arable farming in the mid 19th century. According to local information, the reclaimed land - protected by embankments from all but the highest river levels- was used for growing turnips and potatoes. With labour shortages during the First World War, the drainage system was allowed to fall into disrepair and had completely broken down by the late 1920s. Thereafter, agricultural use of the land was restricted to rough grazing by cattle when the ground dried out in summer, but abandoned to regular flooding during the winter. At the time of the declaration of the NNR in 1962, almost the entire site was covered in a tussocky growth of *Deschampsia cespitosa* (Tufted Hair-grass) and *Juncus effusus* (Soft-rush).

The reserve's management objective for the central area of approximately 13 ha is control of both summer and winter water levels to maximise the site's botanical and ornithological interest. This was achieved by repairing the embankments and maintaining the desired water levels (as far as the fluctuating height of the river will allow) by a sluice incorporating an adjustable height overflow. The scheme was first brought into operation in 1979. Unfortunately, there is little control over the quality of water draining into this low lying area from neighbouring fields, but excessive eutrophication from fertiliser run-off is countered to a certain extent by the winter floods. Under the reserve agreement with the owner, the estate participates in the management by introducing cattle grazing from midsummer - the beasts' "puddling" at the water's edge essential to keep open the muddy fringes to the pools- followed by cutting the surrounding vegetation in autumn on the ground firm enough to support a tractor and swipe.

The effect of 20 years of the above management within the core area has been the replacement of the *D. cespitosa* / *J. effusus* dominated sward by beds of sedges, principally *Carex vesicaria* (Bladder sedge), *C. rostrata* (Bottle Sedge) and *C. aquatilis* (Water Sedge). A conspicuous stand of *C. x hibernica* (*C. aquatilis* x *nigra*) attracts attention. With much of the water drained off or evaporated in normal rainfall summers, the exposed fringes of the drying-out pools are noted for the community of ephemeral mud plants, in particular the nationally scarce *Elatine hydropiper* (Eight-stamened Waterwort) and *Limosella aquatica* (Mudwort), with the rare moss *Physcomitrium sphaericum*.

Twenty Acres Meadow (NS438881)

Appropriately named the Twenty Acres, this 8 ha wet meadow has a known history of bog (marsh) hay cropping dating from when the Aber lands of Kilmarnock were made over to the existing tenants as a shared commony in 1693 right up to the First World War. Thereafter, the field was given over to most of the year round cattle grazing, *D. cespitosa* and *J. effusus* becoming

dominant as on Wards Low Ground. Conservation management from 1979 aimed to restore the site back to a floristically rich flood meadow. Overgrown water channels were opened up, invasive scrub cleared away, but most important of all the covering of cattle-trampled tussocky vegetation broken up by chain-flailing. An annual cut of the meadow in late summer was initiated, the work carried out by the estate using a tractor and swipe.

Since the competition from the more vigorous grasses and rushes was brought under control, well over 100 different meadow and marshland plants have been recorded in the rejuvenated wet meadow. Included amongst this assemblage are *Lysimachia thyrsiflora* (Tufted Loosestrife), *Carum verticillatum* (Whorled Caraway), and *Carex aquatilis*. Especially noteworthy is the presence of a national rarity - *Rumex aquaticus* (Scottish Dock) - a species whose distribution in Britain is restricted to southern Loch Lomondside.

Aber Bogs (NS435875)

Most ambitious of the three habitat restoration projects was a complete re-designing of the water flow-through of the 27 ha Aber Bogs, which once provided surrounding farms with most of their bog hay. Like the two areas already described, this mesotrophic fen was in an advanced state of decay. With regular harvesting of the sedge-dominated vegetation having ceased in the mid 1930s, *Phalaris arundinacea* (Reed Canary-grass) was rapidly encroaching over much of the site, its bulky remains at the end of each growing season steadily building-up a thick mat of rotting vegetation above the water table. Willow (*Salix* spp.) colonisation was also well in evidence, seedling germination further encouraged by the breaking-up of the vegetation mat by newly introduced farm stock. The quality of the drainage water entering the bogs from surrounding catchment areas was generally poor, the source of the water contamination a combination of agricultural fertilisers and enrichment from domestic septic tanks and a sewage works finding its way into the water courses.

Conservation work in the Aber Bogs, which began in 1978 within the one compartment covered by the reserve agreement, was initially confined to holding in check the invading willow by cutting, followed up by stump poisoning to prevent further regrowth. With the entire area under NCC management from 1984, a comprehensive plan to return the bogs to open fen with occasional pools was drawn up and put into effect as funds became available. The major part of the scheme — diverting the sources of polluted water round the perimeter of the bogs- was undertaken by a contract draining firm in 1986. The spoil from the water diversion channels was used to build

up an embankment around all but the north side of the site, where incoming drainage water was of an acceptable standard. Once the new embankments had settled down, sluices with adjustable height overflows were inserted to give control over the internal water level. The system was fully operational by 1989.

The 10 year period since the project was completed has seen a slowing down in the spread of *Phalaris* and a resurgence in sedge growth. Many other aquatic plants have benefited from the higher water table within the embanked area. *Lysimachia thyrsiflora*, *L. vulgaris* (Yellow Loosestrife) and *Cicuta virosa* (Cowbane) are just three showing significant increases in numbers. Quite unexpectedly, *Ranunculus lingua*. (Greater Spearwort) reappeared, this very local species in the west of Scotland having not been recorded in the Aber Bogs for some 40 years.

Bibliography

- Eccles, CR (1989). *Vegetation Survey of the Aber Bogs. May- June 1988* Unpublished Nature Conservancy report, Balloch.
- Mitchell, J (1984). A Scottish Bog Hay Meadow. *Scottish Wildlife* 20: 15-17.
- Mitchell, J (1986). Agricultural Practice, Past and Present in *Loch Lomond National Nature Reserve: Reserve Record, Pt.1.* (Ed. C Placido). Unpublished Nature Conservancy Report, Balloch.
- Mitchell, J (1997). Wet Meadows in Lowland West Central Scotland - an Almost Forgotten Botanical Habitat. *Botanical Journal of Scotland* 49 (2): 341-345.
- Waltho, CM (1980). The establishment of Fen Carr in the Aber Bogs, Dunbartonshire. *West Dunbartonshire Naturalist Report* 5: 14- 23.

Flora Celtica

Readers may have seen the recent notes and call for information in the last UK-wide *BSBI News*, from the Royal Botanic Garden Edinburgh's Flora Celtica initiative. At present, the focus of our research is Scotland, prior to exploring the possibilities of collaborative work in other European regions with a sound Celtic heritage (Brittany, northern Iberia, Eire, Wales, Cornwall and the Isle of Man).

In Scotland, through the participation of the public and commercial sectors, we have so far been able to collate a considerable body of varied information on native plant use. It is known, however that there is still a vast untapped reserve of information in the country and we are appealing to any interested parties to get in touch with the project. Craftspeople, businesses, botanists and other interested members of the general public and academia are encouraged to submit any information. From a chemical analysis of *Sambucus nigra* berries to 'a story their granny once told them about ferns', any information is of great value to the project. Much of the information we are collecting on historical plant lore has come from the Highlands and Islands, from both historical texts and the fast-disappearing oral tradition. In the Central Belt and southwards,

however, there seems to be a relative dearth of information – a problem also apparently encountered by Richard Mabey whilst conducting his Flora Britannica study. Although businesses in this area are often forthcoming with information, and the current commercial picture for the South seems quite robust, as far as folk tradition goes, the lands of Burns and Scott seem to have forgotten the plants that supported (and equally interestingly, invaded) their lives. If you know of any uses of or stories about native plants, we would appeal to you to get in touch.

If anyone has a further interest in what the project is doing, or would like to consult the information we have so far collected, our database of plant uses is already available on the Internet. Education and support for businesses and the scientific community are the main aims of the project, so we would be delighted to help with any queries.

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Alder Dieback - Request for Information

In recent years, there has been widespread concern over the health of Scottish riverside alders. Initially, this was prompted by the recognition in the 1980s of a condition known as 'dieback' which caused the death of many alders in some highland glens. Then, in the mid-1990s it was discovered that some Scottish alders were suffering from Phytophthora disease, a separate condition which has already caused significant losses of riparian alders in England and Wales. As a result, the Forestry Commission has initiated a programme of research into alder dieback and Phytophthora disease in Scotland. The aims of this work are to determine the distribution and severity of these conditions, identify the cause or causes of alder dieback, and to establish whether remedial action is feasible.

At present, our knowledge of the distributions of dieback and Phytophthora disease in Scotland is far from complete, and the assistance of members of the BSBI in reporting the occurrence of these conditions in the coming year would be of great value. Affected alders are most easily detected in mid to late summer, when they lose some or all of their foliage. Earlier in the season, alders suffering from dieback bear leafless twigs or dead and dying leaves, which are associated with patches or strips of dead bark along their branches. In contrast, signs of Phytophthora disease include the presence of tarry or rusty spots on the bark at the base of the stem, and a sparse crown consisting of abnormally small, yellow leaves. Trees which have been affected by dieback or Phytophthora disease for a number of years generally bear dead limbs or have died. Any concentration of alder mortality should arouse suspicion that alder dieback or Phytophthora disease is, or has been, present.

Reports of suspected cases of alder dieback or Phytophthora disease would be welcomed by the Forestry Commission, and can be made to Dr Steven Hendry in the Pathology Branch of Forest Research (Northern Research Station, Roslin, Midlothian, EH25 9SY Tel: 0131 445 6945 E-mail: steven.hendry@forestry.gov.uk, from whom more information can also be obtained.