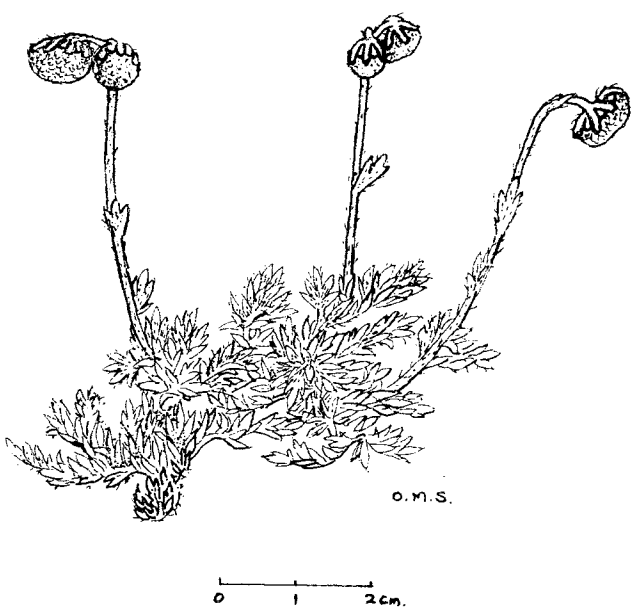
BSBI

SCOTTISH NEWSLETTER

No. 11 1989

ARTEMISIA NORVEGICA



BSBI SCOTTISH NEWS LETTER

Number 11 Spring 1989

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Cover Illustration - Artemisia norvegica

by Olga Stewart

EDITORIAL

This year's issue of the News Letter follows the conclusion of the Monitoring Scheme which has been occupying much of members' time during the past two years. Perhaps predictably, much of the content of these pages reflects members' monitoring experiences and we make no apology for this.

In Scotland, coverage of the alloted 10km squares and tetrads has been 'absolutely outstanding' to quote Tim Rich's comments in the latest BSBI News, and all concerned are to be congratulated on a result which must surely be far more successful than was thought possible at the outset. It is to be hoped that no impediment, financial or otherwise, will delay the presentation of results.

We regret that, due to the number of contributions received, one or two have had to be curtailed or held over. However, this situation is to be prefered to that of having a shortage of copy.

Our thanks are due to all who contributed; not least to Olga Stewart for her cover illustration of *Artemisia norvegica*.

FROM THE CHAIRMAN

I feel privileged to have been elected as Chairman of the BSBI Scottish Committee last November. It is not going to be easy to follow in the footsteps of Rosalind Smith who has worked so hard and efficiently in chairing the Committeeover the past three years. But here goes !

One of the most important matters which the Committee discusses is the question of conservation of sites of botanical importance in Scotland. While not primarily a 'Conservation Society', the BSBI has a very important role to play in providing information on the plants and plant communities which grow on the sites where developments are proposed. Two important cases have loomed large over

the past few months - both concerning ski-ing in the Highlands; one in Glenshee where proposals for further development would lead to the destruction of some important base-rich flushes (and more general pressure on sensitive areas such as Glas Maol), and another in the northern corries of the Cairngorms. The latter threat arises from the implications of proposals contained in the Consultative Draft of Highland Regional Council's Structure Plan Review published just before Christmas. On your behalf, the Committee has sent objections to both of these proposals which would have damaging consequences to the plants of these outstandingly important areas.

The major fieldwork project which has occupied so many of us over the past two summers - the Monitoring Scheme - has now finished, at least so far as recording goes. While much work remains to be done on analysing the data and finding a suitable format for publishing it, we do know that coverage in Scotland has been excellent - far better than might have been expected, given the remoteness of some of the squares, and the small number of resident recorders. Many thanks to all who took part.

We are all looking forward to the Scottish Recording Conference at Stirling in June, and I hope to see as many Scottish members there as possible - though we are not, of course xerophobic! Remember that this time it is not just for VC Recorders, but for all members, and we have an interesting programme of meetings and excursions.

Good botanising for the 1989 season.

Henry J. Noltie

HISTORIC BUILDINGS AND PLANT CONSERVATION

The environs of historic buildings, particularly the walls, often provide habitats for interesting and rare plant species which may be endangered when certain operations such as the re-pointing of masonry are carried out by the authorities responsible for maintenance.
The Principal Architect of the Historic Buildings Council has requested that any representations in connection with botanical conservation affecting historic buildings should be channeled through the BSBI Committee for Scotland.

BSBI COMMITTEE FOR SCOTLAND

The following is the composition of the Committee from November 1988 to November 1989 :-

Chairman - H.J. Noltie; Vice-Chairman - A.McG. Stirling; Secretary/Treasurer - Dr P. Macpherson; Field Meetings Secretary - B.H. Thompson; Minutes Secretary - Mrs M. Barron; Meetings Secretary - Miss J. Muscott; Members of Committee - Dr J.H. Dickson; Dr E.A. Lang; S. Payne; M.M. Scott; N. Stewart.

Representing the NCC - Dr R.A.H. Smith; representing the Botanical Society of Edinburgh - D.R. McKean.

At the AGM on 4th November 1989 three members will be elected to the Committee. The retiring members will be Dr J.H. Dickson, S. Payne and M.M. Scott, the last being eligible for re-election.

Nominations, signed by two members of the Society normally resident in Scotland, or who are Recorders for a vice-county in Scotland although not residaent there, and with the written consent of the candidate, who must also qualify as above, should reach the undersigned at 15 Lubnaig Road, Glasgow G43 2RY by 30th September 1989.

Peter Macpherson, Hon. Secretary, Committee for Scotland.

AN OVERLOOKED VARIETY OF SALIX CAPREA?

D.J. McCOSH

During a visit in June 1988 to Harmancleugh (GR 36/2216) in search of hawkweeds, I noticed a small willow tree with distinctive silky leaves. Reference to the willow handbook (Meikle 1984) suggested that it might be the form now known as var. sphacelata (Sm.) Wahlenb. of S. caprea which was first described, as a species, by J.E. Smith from Perthshire and later regarded as subsp. sericea (Anderss.) Flod. R.D. Meikle has since confirmed the tentative determination, commenting that he was not aware of its occurrence south of the central Highlands. This is corroborated by BRC who have records from VCC 88, 90, 92, 95 - 98, 101 and 108. The specimens in BM are from the same broad area with in addition material from Auchendinny (VC83), Richmond (VC65)

and Essex. If correctly identified all these seem likely to be introductions.

The salix was towards the bottom of the wooded part of the north-facing cleugh at an altitude of about 1250'. The location is just east of the watershed between the Moffat Water (VC72) and Little Yarrow (VC79), an area with hills reaching over 2600' from which a range of alpine or northern plants has been recorded.

It would be interesting to know whether this discovery of var. sphacelata so far south of its previously recorded stationsrepresents an isolated occurrence or whether further searching will result in its recognition elsewhere in the Southern Uplands.

MORE MONITORING ADVENTURES

C.W. MURRAY

Two years after writing about the start of monitoring in Skye , it might be worth reporting on what happened next, and correct one mis-statement (News Letter 1987, 16), made by looking only at the tetrads and not at the main square in 18/52. The highest point is a major summit - Blaven - but we never reached it, due to the good weather breaking down at the end of June 1988 and never recovering. We had, however, recorded the more interesting flora of Coire Uaigneach below Blaven twice, and Purple Saxifrage, Moss Campion, Holly Fern, various hawkweeds etc. were all still there. Attempts to botanise Belig and Beinn Dearg ended in being blown or rained off before completing the intended circuit.

It was surprising how few holiday 'volunteers' turned up. One, Tim Rich himself, experienced one of Skye's wilder days in September 1987. Local help was mainly from Margaret Gregory who tried to cover as many tetrads as possible in 18/52 from her home near Elgol, and proved just how repetitive Skye moorland can be. The NCC warden on Rhum was kind enough to go twice to the furthest west corner of his island (17/29) and found Moss Campion, Burnet Rose and Least Willow to add some interest to the usual acid moorland list.

There were minor frustrations, like the day we returned to Carnach Mor (18/25J), to do the walk of 1987 in reverse (and later in the season), only to find the tide full in

against one section of rocky cliff, which meant climbing back up a steep grass slope (past two plants of Orobanche alba) and starting again from the other end; or trying to locate six-figure grid refs on the ground with no outstanding landmarks well nigh impossible we think, even with map and compass. We did not refind Pyrola media, usually easily spotted, especially in winter or spring, though we had a six-figure reference from a reliable recorder.

We made a few additions to 10km square records, even including Plantago major in 18/55, but nothing that wasn't already on the Skye list.

As it turned out, other people's monitoring squares were more interesting both years. I was asked to join a walk to the summit of the Corryairick Pass from Garva Bridge (no paths other than sheep tracks) and the path went via tetrad J of 18/49, with Sibbaldia at the highest point. Tetrad W of 18/49, to the SW of Garva Bridge, gave me (but not the card) a 'first' in Alopecurus alpinus and another look at Cerastium cerastoides.

In June 1988 we arranged a visit to the little island of Berneray, in the sound of Harris, with Grant and Jean Roger, and then discovered that Berneray was a VC 110 monitoring square and our house was in tetrad A. That gave me (but again not the record card) my first sight of the minute but distinctive Carex maritima, while the more beautiful machair flowers were at their best, and so was the weather.

The Knoydart field meeting in July allowed me to reach completely new territory, seen for years as our 40 mile visibility mark from Prabost, but difficult of access until fairly recently. The mountain flora wasn't up to Storr/Quirang standards, but did have alpine hawkweeds in flower in the rain.

Finally, before the weather closed in on us completely, a visit to Loch Ossian landed me in another of Alfred Slack's squares, and once more the card came out. Again, the most interesting contrasts to Skye were the alpine hawkweeds, along with Cloudberry, Dwarf Cornel and Bog Blaeberry. Hieracium alpinum turned up in Skye (but not in a monitoring square) in 1986, and we still think the other three should also be lurking somewhere on the Kyleakin hills. Now that monitoring is over for the next ten years .....!

CALAMAGROSTIS PURPUREA

OLGA STEWART

In January 1988 the type specimen of Calamagrostis purpurea subsp. purpurea was sent on loan from Leningrad to the BM (Nat.Hist.). It had been collected near Baekal, eastern Siberia in 1821. I was able to measure the specimen and confirm that it is a smaller plant in all its parts than C. purpurea subsp. phragmitoides which is the common subsp. of Norway, Sweden and Finland.

The other two subsp. of C. purpurea are subsp. langsdorfii and subsp. pseudopurpurea. The former comes from NE Russia and differs from the others in having the awn arising from the middle or lower part of the lemma and exceeding the apex by 1.0 to 1.5. Subsp. pseudopurpurea grows SW of Dresden in E. Germany. It is taller and even more robust, with a shorter ligule, larger spikelets, slender awn attached to the apical notch of the lemma, and callus hairs longer than the lemma.

The four subsp., I think, originally evolved as a hybrid between C. canescens and C. epigejos, though the measurements of the type specimen of this hybrid from Thuringia, W. Germany do not match those of C. purpurea. The four subsp. grow in areas hundreds of miles apart. One would expect them to evolve in different ways and it is not surprising to find that C. purpurea is a very variable grass.

The measurements of the C. purpurea specimens found in the British Isles, from near Braemar, the two sites in Perthshire - Stormonth Loch and Bloody Inches, the two sites in Angus - Rescobie Loch and Dilty Moss and from Esthwaite Water, Cumbria, fall well within the subsp. phragmitoides range. This year Dr Roderick Corner has found a Calamagrostis in Selkirkshire which does not compare with any of the species known to occur in the British Isles. It is a tall grass with large spikelets, 4 to 5 nodes, a long ligule 5.5 - 8mm, callus hairs longer than the lemma and the awn arising from well below halfway of the lemma. C. stricta grows not too far away, so this may be one of the parents of the Selkirk plant. This summer I plan to visit the site and hope that further examination will answer some of the questions about the parentage of this interesting grass.

FESTUCA RUBRA

F.A. McALLISTER

The Festuca rubra complex has long been a problem for workers wishing to record more than the aggregate, but the work being done by Professor Stace and his group at Leicester may soon sort out some of the problems.

In Scotland plants with chromosome numbers of 2n = 42, 49, 56 and 70 have been reported by the Leicester group. The hexaploid with 2n = 42 is the commonest cytotype, but the octoploid (2n = 56) is also reported fairly frequently. Some commercial cultivars are octoploid and the natural distribution of the cytotypes is unclear. Some years ago I found that red fescues with unusually braod flat leaves growing in flushed gravels around the high spring tide mark in the Kyles of Bute (VC 100) with Atriplex praecox were octoploid. This octoploid seems to be almost confined to this habitat, plants from turf and rock ledges higher up the shore being hexaploid.

The decaploid (2n = 70) was collected on Ben Alligin in Torridon, Wester Ross in 1973 in the course of a study by Dr W.S. Stewart of Newcastle (ex of Glasgow) into the cold tolerant, winter-green red fescues. It would be very interesting to know if this were an isolated individual or a member of a decaploid population. The author (or the Leicester group) would be grateful for seed or tillers of red fescues from high altitudes on Ben Alligin or neighbouring mountains. Please don't hesitate for fear of making a misidentification. I well know the hazards of trying to check the identity of a non-flowering, fine leaved, straggly grass at high altitude in howling gale in driving sleet. I've grown several plants of Deschampsia flexuosa from my 'red fescue' collections, but another collection obtained in the conditions described above on Beinn Dearg grew into F. richardsonii of Flora europaea (F. rubra subsp. arctica of Hubbard). This plant is characterised by its pruinose, usually very hairy spikelets and, as in Icelandic collections, shows a strong tendency to become pseudo-viviparous in cultivation (at Newcastle and Leicester). It was strongly rhizomatous but grew rather poorly and weakly in comparison with high altitude collections of 'normal' F. rubra.

PRIMULA SCOTICA - HISTORIC SITES

ELAINE BULLARD

As all members must be aware, losses of sites of this, one of our few endemic species, are alarming. Sometimes the cause of loss is obvious, with others there may be a subtle change in habitat, while a third catagory consists of the historic sites (usually pre-1950) where the plant has not been found recently or where the exact site has not been re-located.

Attempts are being made to carry out vegetation analysis of extant sites and thereby establish the preferred habitat. It would be extremely useful if older members had information about some of the lost sites - their approximate size, the density of Primula scotica plants within them and, best of all, some recollection of the habitat; for example, heath, sedgy turf or machair, with dominant species.

The areas from which there are historic (or even recent) records and in which I have been unable to find P. scotica are :-

'South of Scourie - masses' - a recent report by a tourist.

Cape Wrath. I have walked from the lighthouse to Kinlochbervie without finding any, so presumably this colony was in the eastern or northern part of the area.

Durness. There are still three areas with small colonies, declining over recent years. Any pre-1950 information?

Coldbackie. 'below the banks'. Skerray - some scattered plants still there but seems to have been more plentiful in the past.

Coombe Island - on some BSBI records. (Also other islands off Melness?).

Invernaver, Bettyhill and Farr. I have been unable recently to find any plants by the river at Invernaver (were there 20 years ago). Many colonies around Bettyhill are declining and there appear to be no plants left at Farr Bay. There are losses of other plants in the area, alas.

'Bighouse' (Melvich) and 'pastures by river'. I've never seen any likely habitat in the latter and 'Bighouse' is

rather vague. There are colonies at Portskerra and near the count boundary.

There are historic records for Dunnet Head, and more vaguely 'Watten' which I have never found.

P. scotica can occur in tiny chance colonies in unlikely habitats; these persist for a few years and may account for some historic records.

MONITORING AND FORESTRY DEVELOPMENTS ALONG THE ROXBURGH AND SELKIRK BORDER

R.W.M. CORNER

It was a stroke of luck that 10km grid square 36/31 was included in the monitoring survey. With its numerous hill lochs, unusual in SE Scotland, and calcareous flushes, it was known to contain some rare and local species. An unpleasant fact of life to the hill botanist here is the blanket afforestation with Sitka spruce which has altered the appearance of the landscape over the past 20 years particularly and which continues apace. The attendant ditches and tracks have chewed up the surface, altering the drainage and causing flash floods in the valleys. Although the initial cessation of grazing causes some fine floral flourishes, once the dark canopy closes over virtually all higher plant life is extinguished except around the forest edges. It is sad to see abundant displays of Viola lutea in forestry ditches knowing that in a few years time they will be gone for ever. The lochs have also been affected, not only by the close proximity of the trees causing drying out at the margins, but by the washing in of silt and gravel producing changes in water chemistry and clarity.

However there are still areas of exceptional interest as yet unaffected by forestry, and the contrast is remarkable. The discovery of the Holy grass (Hierochloe odorata) in an entirely new site with two separate colonies was probably the highlight of my monitoring. I had been within a few metres of one of the colonies several times before but was concentrating on a wetter part of the habitat. There is no doubt that monitoring made one look at all the differing habitats at one site. At 282 metres (925') the Hierochloe will at its highest altitude in the British Isles. In contrast the arctic-alpine Alchemilla glomerulans

was discovered in a hayfield at 213 metres (700'). I had previously found this Alchemilla further up the Ettrick valley in 1968 but this site has been lost due to grassland improvement. These habitats must be unique in Scotland, being equivalent to those of the rare Teesdale Alchemilla species. So far none of the latter have turned up. The future of the colony seems reasonably secure under hayfield management.

Carex appropinquata was found in a new site as a single tussock and Calamagrostis stricta in small quantity in two new loch-side habitats associated with Carex lasiocarpa. The problematical hybrid Calamagrostis (see note by Olga Stewart in this News Letter) formed a large pure stand in a new site and should provide opportunity for further research. A similar colony first found some 20 years ago is now extinct due to waterlogging of the habitat from forestry run-off. An addition to the flora of Selkirk which is due directly to the forestry was Ornithopus perpusillus on a forestry track at 335 metres (1100') with Rumex acetocella var. tenuifolius. The latter is virtually unknown off the forestry tracks in VCC 79 and 80. Heavy machinery used in road construction probably brought the former in, so that working these tracks could pruduce some interesting finds.

Other species of note new to the square were Melica nutans in its thrid extant VC80 site, Symphytum officinale (confirmed by Frank Perring) new to VC79, and a first post-1930 record for a good naturalised clump of Astrantia major. Viola canina had an interesting habitat on old stabilised river gravel. Carex acuta occurred in several localities up to 290 metres (950') and Scirpus sylvaticus to 282 metres (925') which must be their altitudinal limits in this country. All the Montia fontana was subsp. fontana except for one record of subsp. variabilis. Notable species refound were Carex paupercula, C. limosa and Potamogeton filiformis. However I failed to refind several species including Vicia sylvatica and Clinopodium vulgare which had probably been lost due to a rock-fall in a ravine, and Isoetes lacustris which I knew from two lochs which have been affected by the forestry practices mentioned previously.

Having seen the relentless march of forestry over the hills it is obvious to me from my observations that there are a number of species which are especially vulnerable to the changes in habitat taking place. They have survived centuries of sheep grazing but will not survive the intensive forestation. They are all found in 36/31 and include the following species of calcareous flushes : Carex dioica, C. hostiana, C. lepidocarpa, Dactylorhiza incarnata subsp. incarnata, Eleocharis quinquiflora, Eriophorum latifolium, Euphrasia scottica, Juncus alpino-articulatus, Parnassia palustris, Pinguicula vulgaris, Sagina nodosa, Sedum villosum and Selaginella selaginoides. Blysmus compressus could also be included although absent from this square. Species of hill pasture likely to be lost are Botrychium lunaria, Ophioglossum vulgatum and Viola lutea. Unless there is some form of active conservation and liason between the forestry authorities, the NCC and local naturalists the future of the species listed above is bleak indeed in the Border hills.

P. MACPHERSON &
A.McG. STIRLING

BROMUS INERMIS IN THE GLASGOW AREA

Bromus inermis (Awnless or Hungarian Brome) is a native of Europe and Asia and has been cultivated as a fodder plant in the British Isles. Being drought resistant it persists in sandy and stoney soils and has become naturalised in a few widely scattered localities in England (Hubbard, C.E. 1968. Grasses, p.75). It is similar to B. erectus from which it may be distinguished by its creeping rhizomes, hairless leaves and usually blunt, awnless lemmas.

The earliest local record is from a siding at Monklands, near Coatbridge, Lanarkshire (VC77) in 1920 (Grierson, R. 1931, Glasgow Naturalist 9, 49). Other Lanarkshire localities include a colony first noted in 1977 and which still survives on waste ground by garages near the Forth & Clyde Canal at Kelvindale, Glasgow (Silverside, A.J. 1978 Glasgow Naturalist 19, 430). In 1982 one clump was found at the edge of Meadowside Dock, but it did not persist. Despite its vernacular names, there is a var. aristatus, a single plant of which was seen in an old shipyard at Linthouse in 1986. During the Flora of Glasgow Project in recent years good stands were noted at Garscadden (VC99) and on a roadside verge close to the Hillington interchange on the M8 (VC77). We are grateful to Messrs. E.J. Clement and P.J.O. Trist for help with identifications.

DR SKENE'S BOTANICAL WRITINGS c. 1760 - 1770.

DAVID WELCH

Dr David Skene was the first botanist to make a serious study of plants in north-east Scotland. His manuscript was referred to by both Dickie (1860) and Trail (1901) in their local floras, but neither give many records from it, for reasons which are now obvious to me.

The so-called manuscript was held in Dickie's time by Mr Thomson of Banchory Devenick, Kincardineshire; it is now kept in the archives section of Aberdeen University Library. However, there is no single document or narrative, just a vast collection of papers, notebooks and letters. Dr Skene was a doctor of medicine with a practice covering a wide area around Aberdeen; he was also a polymath with interests in marine life, animals, geology and weather. Plant records are thus intermixed with notes on many other subjects, lists sometimes being written on the backs of letters from patients.

The force driving Skene's botanical activities would seem to have been a desire to produce a flora like Linnaeus' Species Plantarum. Latin descriptions of plants and some animals constitute a far greater part of the collected writings than lists of plants observed. Correspondence with other botanists such as Dr Hope shows that Skene was evaluating schemes for the classification of flowering plants.

Skene's botanising in north-east Scotland was probably done on his rounds. His clients included estate owners such as the Urquharts of Craigston Castle and the Gordons of Nethermuir, and he made short stays with them. There are lists from these houses and also Craig, Delgaty, Freefield, Frendraught, Montblairy and Pittodrie. Most of the records date from 1762 to 1770; in the early days Skene was clearly learning, e.g. in May 1763 he described an unknown plant from the Den of Craig which must be Adoxa. After this period Skene gave greater attention to his other interests. He died, aged just 36, in 1777, the same year that the first Scottish flora was published.

I am grateful to Dr Colin Maclaren, the University Archivist, for help in seeing the manuscripts and explaining his catalogue of them.

LOISLEURIA PROCUMBENS IN SKYE C.W. MURRAY

In the summer of 1887 the Irish botanist H.C. Hart spent a holiday on Skye and, while climbing in the Cuillin, achieved fame as the discoverer of Arabis alpina. He duly reported his find in the Journal of Botany and gave a list of the other plants he had seen, without exact localities. The list included Loisleuria procumbens and for nearly a hundred years it was not seen again in spite of the Murray family visiting the Cuillin ridges and corries oftener than most people over 25 years from 1955. As a result, the 'needs confirmation' record for Creeping Azalea in The Botanist in Skye, 1st ed. 1974 became a 'doubtful reject' in 2nd ed. 1980. Then things began to happen!

In 1981 an NCC Uplands Survey brought David Horsfield to Skye and, calling on ARO Andrew Currie, he mentioned casually that he had seen Loisleuria 'in the Cuillin'. Andrew, not realising the record was out of the ordinary, didn't ask where. Before the VC recorder got around to enquiring further a letter arrived from G.D. Field (already a provider of of extra special records, including Draba norvegica), and out fell a specimen of Loisleuria. Mr Field had noticed the relegation, remembered he had seen the plant some years earlier, returned to check and sent the proof! His site (possibly H.C. Hart's) was just off the 'tourist route' up Sgurr nan Gillean, where a spur runs out towards Glen Sligachan, at about 2,500'. We found the site a week later (July 1982), a place we must have passed several times previously. David Horsfield's site proved to be different - at the head of Coir' an Eich, below Sgurr na Banichdich, over two miles away to the south-west.

Weather has to be right for our Cuillin expeditions, and on a perfect day in late September 1982, using the directions 'head of Coir' an Eich', we attempted to find Loisleuria there without success. In October the same year we set out to climb Sgurr Alasdair via the Sron na Ciche 'flat wedge' approach (in the interval having been given a better reference for the Coir' an Eich site). Loisleuria in Skye seemed to like a NE facing, exposed edge, so instead of following the usual cairned track up the centre of the slope we kept to the edge of the cliffs above the Cioch butress, and were rewarded with one scrap (1½ plants), again clinging to a rock. Elated by this we intended to try again in Coir' an

Eich, but didn't manage until a year later, in November 1983, when one of those rare days of sun, frost and no wind, and snow on the tops, we climbed up to the screes above Allt Coir' an Eich, and found one patch of Loisleuria (DH had seen two!) - again growing in a crack in a boulder.

The Creeping Azalea was now well and truly reinstated in the Skye list, but even better was to come. In September 1986 Alfred Slack came to Skye to try and refind Lightfoot's 1772 record of Arctous alpinus on Beinne na Greine, one of the hills behind Kyleakin. The approach from the Kylerhea road and up the first of the prominent rocky bumps was the easiest and most potentially rewarding, since Arctous favours exposed ridges. Between the first and second 'summits' from 1500' to 1950' run lines of rock outcrops, and here we found, not the Bearberry but more Loisleuria than we had yet seen in Skye. Robin Murray was delighted, as he had forecast years before that the likeliest place for Loisleuria in Skye was on the acid Torridonian sandstone of the Kyleakin hills. Further exploration higher up and further east failed to reveal any more. The granite of the 'Red Hills' should suit Loisleuria too, but several expeditions searching there failed to produce any.

The sightings continue - there was a report in 1987 of a small patch at the head of Coir' a' Ghrunnda, not long after we had been there ourselves and keeping a look-out for it. The small patches (some very small) are in such contrast to the larger areas of the plant, much more easily picked out on the mainland hills (and at higher altitude there), that this may be the explanation of how Loisleuria went unnoticed in Skye for so long. We have yet to find Loisleuria in flower - and the Arctous remains a challenge!

SCOTTISH RECORDING CONFERENCE 1989 - LAST REMINDER

Members are reminded that this event, to be held at Stirling University from Friday evening June 30th to Sunday afternoon July 2nd, is open to all members, not only Recorders. The anticipated cost for the 48 hour span is £46 + VAT. The programme will consist of talks, workshops and field meetings. Further information may be had from Dr P. Macpherson, 15 Lubnaig Road, GLASGOW G43 2RY

THE MONITORING SCHEME IN WEST LOTHIAN

J. MUSCOTT

I took over as Recorder for West Lothian in the autumn of 1986 - just as the scheme was starting. Although the vice-county is quite small a complete 10km monitoring square (36/07) fell within it, covering approximately one third of its entire area. My job was therefore pretty easy compared with that of most Scottish recorders. However I knew West Lothian hardly at all.

The area is less glamourous than East Lothian and less well populated than Midlothian and had not been all that well botanised until 1982 when the NCC in the person of Nick Stewart made something of an onslaught. Nick's records were extremely useful, both in indicating fruitful areas and also what might be found. I got quite a kick out of trying to augment his lists, or in discovering a little corner where he clearly hadn't penetrated. Conversely of course there were some plants I was quite unable to refind.

The interest in VC84 is very patchy. The oil-shale industry which boomed earlier this century has left many obvious marks in the form of pink and orange bings which dominate the landscape but which in places are now quite well colonised by vegetation. Some less obvious habitats also remain - old railway lines, areas of subsidence giving rise to marshes and ponds, and some quite large patches of scrub and heath where factories once stood. Farming is mixed, but no less intensive for that, and many areas which must once have been rough grass and heather moor have been reduced to tiny outcrops in a sea of improved grassland. Apart from one or two well known areas, the many strips of woodland are disappointing in terms of ground flora. The old industrial areas - including the Union Canal - are therefore quite valuable botanically.

I made it a point of honour to visit every tetrad in the square at least once. This apparently caused some consternation at Monks Wood when they came to key in the records, but it was actually quite illuminating. I did not find anything wildly exciting, but there were some interesting nooks and crannies. I tried to interest the NCC in a small bing rich in orchids and club-mosses. This site has now

been listed by the Scottish Wildlife Trust and I hope to follow suit with another couple of areas. Stachys arvensis turned up two years running in a cornfield; poppies on the other hand have virtually disappeared excepton some bings and dumps.

On behalf of the Botany of the Lothians I am hoping to produce a plant check list this spring or summer, and both the NCC records and the Monitoring Scheme have been very useful in providing sme hard data - particularly when it comes to estimates of frequency. Previous records were not very up to date and were often only in terms of 10km squares. Given such a relatively small and extremely 'bitty' area to cover, four figure map references seem to me essential, and six figures preferable for all but the commonest plants (over 60% of my species are recorded from 5 or fewer sites). At present this is just about manageable on cards, but ideally we all need computers!

I've enjoyed the Scheme, but I'm glad its over - and it will be interesting to see how long it takes to cover the remaining two thirds of West Lothian as intensively as that BSBI square!

SCOTTISH EXHIBITION MEETING
5 NOVEMBER 1988

J. MUSCOTT

The 1988 Exhibition Meeting was held in Glasgow under the auspices of the BSBI, the Botanical Society of Edinburgh and the Glasgow Natural History Society. The venue was the Botany Department of Glasgow University (courtesy of Dr Cogdell, Head of Department), where an episode of 'Taggart' was also being filmed. I don't think anyone managed to get on film, but I gather a number of Scottish botanists spent time this summer looking for various fungi required in the episode.

This year the emphasis was very much on Scotland, both in the exhibition and in the members' slide show, perhaps not surprisingly, with the second year of the BSBI Monitoring Scheme, the Flora of Glasgow Project and the Flora of the Lothians all in full swing. All these projects had been productive in terms of new records and new sites. Special mention must be made of the attractive paintings by E. Harrigan which will one day illustrate the Flora of Glasgow.

The Recorders' meeting naturally concentrated on the BSBI scheme - and what comes after. It will probably be another year before the records can be properly analysed, but Tim Rich hoped to deal with the Scottish records first - early in the new year. A new Botanical Atlas seems a natural follow-up to the intensive recording, but most of us are looking forward to a (relatively) restful time next year. In order not to interrupt their slumbers too much, a 2-year (mainly paper) project is to be started in 1989 on 'semi-rare' plants. These are defined as occurring in more than 15 but less than 100 10km squares and don't quite qualify for the Red Data Book.

When the AGM of Scottish BSBI members was held in the afternoon a preview of the 1989 field meetings programme revealed a very full and interesting selection of venues. Outline arrangements for the Scottish recording week-end were announced (see details on page 14 and in BSBI News No.50). The venue, Stirling, is an excellent centre for field excursions.

Scottish recording cards also featured on the agenda. Many people like the BSBi monitoring cards, so these will be retained for general use , while a new Scottish recording card with larger print than the previous version will be available for those who prefer the A5 size and traditional layout. The Scottish News Letter remains popular and contributions were invited for the next number.

A short Committee Meeting followed the AGM, in the course of which Henry Noltie took over as Chairman from Ros Smith whose Chairmanship has been much appreciated. We are all glad she remains on the Committee.

After tea Ron McBeath, Assistant Curator at the RBG Edinburgh managed to extend our horizons beyond the borders of Scotland for a while - to the vast expanse of the Himalaya. Because of the steepness of the mountains, the climate can vary from semi-tropical to alpine within a few miles, allowing an enormous range of habitats, and the possibility of migration during world climatic changes. This had resulted in an extremely rich and varied flora, of which we were offered some splendid glimpses.

The day concluded with a buffet supper and members' slide show in the nearby Stakis Grosvenor Hotel.

Exhibits

G.H. Ballantyne : Brambles of the Borders and Lothians.

J. Bevan & D. McCosh : Hieracium Group. Scottish Excursions.

M. Braithwaite : Crepis mollis refound in the Scottish Borders. Current status of Berula erecta and Apium nodiflorum in northern England and southern Scotland.

J.K. Butler : Caithness and Sutherland report.

J.W. Clark : Coll plants.

R.W.M. Corner : Plants from Roxburghshire and Selkirkshire.

J.H. Dickson & K. Watson : Recent discoveries from the Flora of Glasgow.

R.S.L.J. Griffith : Herbarium and database of Scottish plants.

G. Halliday : Recent finds from Cumbria.

E. Harrigan : Paintings for the Flora of Glasgow.

E.T. Hunter-Blair : Branch of weeping, early-fruiting Holly.

J.R.S. Lyth : Legumes from home and abroad.

D.R. McKean : New and/or interesting records for Midlothian.

P. Macpherson : Linaria species and hybrids.

C.W. Murray : Sedges from Norway.

J. Muscott : Botany of the Lothians : Midlothian and West Lothian checklists.

C.N. Page : Recent pteridophyte publications from Edinburgh.

T. Pierce : Biological Records in Scotland (BRISC). Touring exhibition.

T. Rich : BSBI Monitoring Scheme.

L.Smith & A. Walker : A Biological Records Centre for Strathclyde.

O.M. Stewart : Pilularia in Kirkcudbrightshire. Flower paintings. Calamagrostis. New Kirkcudbrightshire records.

A.McG. Stirling : Declining coastal flora of Ayrshire.

A. Walker : The herbarium of the late Alastair Henderson MA PhD. The field notebooks of R. Mackechnie.

Slide Show

J.K. Butler : Northern Scotland : Ben Hope and Brora.

R.W.M. Corner : Saxifraga rivularis on Slioch, Wester Ross, and other interesting alpines.

L. Farrell : Recording on Mull and Tiree.

H.A. Lang : Ben Hope - and a pond at Newton Stewart.

P. Macpherson : Recent Glasgow records.

C.W. Murray : Recording in Knoydart and Skye.

J. Muscott : Interesting plants of West Lothian. Bings are beautiful!

F.H. Perring : Nature Reserves of western Scotland.

A.A.P. Slack : Eight squares in Westerness.

A.McG. Stirling : Coastal plants of Ayrshire.

SOME MONITORING MEMORIES

M.E.R. MARTIN

It being decreed by the BSBI that a two year slice of my life be set aside to monitor the vice-county of Dumfries, I might have said 'But how?'. The answer came at a Recorders' meeting when Tim's infectious enthusiasm won me over for the cause - and I 'had a go'. There followed blue cards in plenty, thanks, instructions, corrections, and buff envelopes of all sizes smilingly handed to me by my postman.

1987 began with help amd records pouring in from the high hills to the east and west above Beattock and the Devil's Beef Tub north of Moffat, the land of the headwaters of Evan and Annan. Langholm tetrads came in for helpful visits too. It was here that Elizabeth Kungu got rid of any botanical rustiness by rising early on Sunday mornings before the family were awake, and found the rushy moors repaid her handsomely. She apologises to the BSBI for being unable to give more time to recording in 1988. She had also accompanied me to Kirkconnel's 'A' tetrad to dutifully record an uninspiring bit of open-cast mining

country. Far to the north we saw the tall radio mast showing the direction to 'J' tetrad, but our hopes of seeing it and perhaps visiting the shepherds in their lonely cottages at the end of the tarmac road were not to materialise. I must also mention here another helper, Jean Muir of the local Natural History Society, who helped me very much to overcome the lonliness of going far afield.

Of my five squares to be monitored Kirkconnel (26/71) had the advantage of habitat variety. There were moorlands, old mine workings with raw black bings, a railway station and six miles of line, as well as farming. Regrettably I lacked foresight when I applied for only one BR permit and HV vest, so did not do justice to the body of the square. The tetrads made up for it; 'W' contained an interesting SSSI cleuch where Olga Stewart and I spent aprofitable day. Hugh and Jean Cameron crossed the botanical border from their home in VC 73 to mark a card in a then untouched corner of the open-cast area of 'A'. So far I have not mentioned conifer trees. not one of my squares nor any tetrad was without plantations and these were not given much attention, but plants were found in rides and big lay-bys at working areas.

In 1987 I lost a tetrad after a very long walk and could only risk recording distant bracken, but in 1988 it was found for me by Hugh Cameron who used his wartime expertise in map reading. The tetrad was there all right, with a new road entrance ready for timber extraction. This happened in square 25/78 which was shared between Olga and myself. It has the botanical advantage of considerable isolation but many of the plants were difficult to refind due to a lack of grid references to pinpoint them. Bladderworts occupying runnels on hillside were not refound. Does one ever find a needle in a haystack? Armed with her grapnel, Olga brought out splendid water plants from a deep peaty pool. I was glad she did not have to be rescued from it - as with the monitoring I would have 'had a go'.

Horsetails from east and west and Alpine Meadow-rue and Field Madder from north to south; for beauty tall Calamagrostis waving in sunshine, and Common Rockrose for sheer thanks.

SHORT REPORTS ON THE MONITORING SCHEME P. MACPHERSON

Compiled from data supplied by the undernoted Recorders :-

G.H. Ballantyne: Fife (VC85). It is surprising how much more was revealed by concentrating on a small area - unpromising corners sometimes proving quite productive.

The monitoring card is hopeless for use in the field. The print is far too small and there seems little justification either in separating off the ferns or including exotic conifers. There is inconsistency in the sub-specific forms mentioned and it is easy to cross off the wrong subsp. The Trust version of the old card is preferred, but this means time consumed in transferring records from one to the other.

1980 would be a more realistic 'cut off' date for the new Atlas, otherwise many Recorders would in effect have to start all over again.

J.K. Butler: E. Sutherland (VC107). At the inception of the monitoring scheme there was a paucity of recorders in the north of Scotland, leaving the Recorder for East Sutherland with potentially unlimited outlet for his enthusiasm. However, most of the tetrads were in fairly inaccessible and probably uninteresting places. There was only one botanically rich patch, but the landowner was then at war with the NCC and wasn't going to let any plant list be drawn up which might perchance fall into the hands of the enemy!

In the event, with some help, all the East Sutherland tetrads, the majority of those in Caithness and a few in West Sutherland were surveyed. It is a daunting prospect to hike for miles to reach a featureless tetrad where one is quite convinced that nothing will grow except the 30 standard plants of poor quality peat moor. Grumby Rock was typical, the highlight being a small area of sheltered slope by a burn with trees, grasses, ferns and primroses! Other little islands were more rewarding. On a granite hill behind Helmsdale there is a gorge with Salix x multinervis and patches of the rare Ajuga pyramidalis. On the East/West watershed of north Scotland Carex pauciflora and C. limosa are characteristic of the wetter places, and Betula nana is frequent on the western slopes.

The best discovery during the two year period was a long gorge up from Balnacoil Lodge - a veritable northern paradise of

Waterfalls, rocky walls and river-side copses. Notable finds were Saxifraga stellaris at an altitude of 200 ft. Equisetum pratense and the elegant Hieracium sparsifolium.

A. Rutherford: Dunbarton (VC99). Recording began on 2nd Janueary 1987 in the Dumbuck area as the frost melted in the sun. A surprising number of recognisable plants was in evidence including some naturalised aliens. Dalmuir Station and Burn area had Galanthus nivalis, Tolmeia menziesii and a curious form of Prunus laurocerasus close to var. magnolaefolia. This last has giant leaves up t 25cm but seldom grows into a tree. On a road bank was of those puzzling Robertsonian Saxifrages (London Prides) which we used to think were all S. x urbium.

Dumbuck Hill produced Catabrosa aquatica, and the Kilpatrick Braes Koeleria macrantha - both first records since the 1890s. The new cycle track between Glasgow and Balloch yielded Conium maculatum and Myosotis ramossisima near Milton. Both are rare in the VC. Near Dumbuck Quarry were good stands of Carex acutiformis and C. disticha. All these records were from the the only Dunbarton monitoring square 26/47.

D. Welch: North Aberdeen (VC93). Recording proceeded steadily and added an average of approximately 30 species in each of the four 10km squares. Scirpus sylvaticus in a stream-side marsh at Esselmont and Lysimachia nummularia in a wood at Insch were perhaps the most interesting finds.

Part of the available time was devoted to South Aberdeen in order to help make up the recording deficit in that VC.

A LADY'S SLIPPER - PUTTING A FOOT IN IT?

G.H. BALLANTYNE

"Nature lovers from all over Britain will soon be paying close attention to the rural area around Cupar". So ran the first sentence of an article in the "Dundee Courier" of 7.11.88. As I count myself in that category I read on - "it was revealed at the weekend that an extremely rare orchid, a Lady's Slipper, had been discovered on a site only a few miles from the town". That evening I had a phone call from one of the NCC Fife wardens, and Douglas McKean of the RBG Edinburgh sent a copy of the cutting, but there were no other enquiries so I concluded that the paper must have a rather limited circulation among BSBI members.

Another young orchid lover subsequently informed me that the finder had made several extravagant claims, including the discovery of over 1,000 spikes of Dactylorhiza fuchsii subsp. o'kellyi on the Fife coast!

I understand that a photograph has been examined at the BM and the plant confirmed as the continental variety of Cypripedium calceolus - clearly of cultivated origin. The latest development is that the finder is writing a book about orchids. If this ever appears please remember that it had nothing to do with me!

BSBI SCOTTISH FIELD MEETINGS - 1989

May 27-28	Isle of Bute
June 3	Largs, Ayrshire
10-11	Spey Bay, Moray
17-18	Moffat Hills
24	Berwickshire coast
26-28	Isle of Skye
July 3-10	Isle of Coll
July 15-16	Poolewe, W. Ross
15-17	Moffat and Falls of Clyde
July 29 - August 5	Kindrogan Field Centre (Hawkweeds)
August 5	North Berwick
November 4	Scottish Exhibition meeting & AGM

For full details see the BSBI Calendar and Field Meeting Programme.