

NUPHAR LUTEA

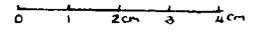
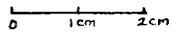
OMS

NUPHAR X SPENNERIANA

Heads and  
stigmatic discs

NUPHAR PUMILA

Leaves



# BSBI SCOTTISH NEWSLETTER

Number 18

Spring 1996

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## Editorial

Members may be interested to know that of the articles published in the present issue four were invited and eight were submitted spontaneously. We reiterate what we wrote in 1993 - while appreciating very much the efforts of our regular contributors we would like to encourage submissions from those who have not previously contributed.

In the 1995 issue we included for the first time abstracts of the exhibits presented at the Scottish Annual Meeting. This innovation has been well received and we intend to continue the practice. The invitation to provide an abstract for the *Newsletter* indicated a maximum of 150 words. Last year many were appreciably in excess of this number and were pruned. We are pleased that contributors this year have made the effort to comply with the limit. We wish to point out that having made an exhibit does not preclude the member from submitting a formal article on the subject. The exhibit will then be listed in the Annual Report, under the appropriate heading.

In common with *BSBI News*, where the nomenclature is that given in Kent/Stace or Clement and Foster, we do not include authorities. As in *News* we also give both the Latin name and a name in English (we do not use the term "English name"! Where an author gives a name other than that recommended by BSBI (Dony *et al*) we append the recommended name in brackets. In future we intend to use the plant status nomenclature terminology recommended by the BSBI Working Party and published in the April issue of *News* (Macpherson *et al*).

Once again we have invited Olga Stewart to provide an illustration for the front cover, to complement one of her own articles. Each year we try to have something relevant to the contents of the *Newsletter*. If any member has a particular reason for suggesting an illustration we would be pleased to consider it.

### The Editors

Peter Macpherson  
15 Lubnaig Road  
Newlands  
Glasgow G43 2RY

Allan McG Stirling  
17 Austen Road  
Jordanhill  
Glasgow G13 1SJ

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## Chairman's Remarks

P MACPHERSON

I am glad to have the opportunity to put on record an appreciation of the contribution made to the BSBI Committee for Scotland by the retiring Chairman, Dr Rod Corner. He put considerable thought, time and energy into his chairmanship and never missed a meeting, despite living in Penrith. His special strength was in the field of conservation. In this connection he consulted widely and made appropriate representations on behalf of the committee. In view of this, we thought it appropriate that he should write an article on the conservation issues of concern to the Committee for Scotland during his last year in office (see p 16).

I have been looking back at the correspondence which led to the formation of the BSBI Committee for Scotland. The Committee for the Study of the Scottish Flora (CSSF) had been constituted in the mid 1950s. It comprised representatives of the BSBI and the Botanical Society of Edinburgh (BSE). In 1977 the BSBI Co-ordinating Committee noted that the CSSF had been very active, but that there was "confusion in the minds of BSBI members, not least some of those in Scotland about the status of the CSSF. An appreciable number seem to regard it as a third independent national society". Initially various re-commendations were made to Council with regard to asking the CSSF to ensure that their status and functions were clear to all concerned. Subsequently however, the Co-ordinating Committee considered that the BSBI interests in Scotland would be better served if members in Scotland were to set up a BSBI Committee for Scotland. Should such a committee be established, the production of a regular newsletter and the arrangement of meetings for the reading of papers, were just two types of activity which it saw might be developed.

Following Council approval, a questionnaire on the subject was sent in 1977 to BSBI members resident in Scotland. At about the same time a letter was sent to these members, at no cost to the BSBI, by the Chairman and Secretary of the CSSF, two very committed individuals (Robert Mackechnie and Basil Ribbons) advising them that the committee considered that "in Scotland where two national botanical societies operate (with a considerable membership overlap, and considering that at present 10 of the 12 members of the CSSF were members of the BSBI) the best arrangement was the existing kind of operation". This was also the opinion of the Council of the BSE.

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However the membership voted in favour of the formation of a BSBI Committee for Scotland and the first members were elected to it in November 1977. The CSSF was formally dissolved on 30th June 1978.

I was among those elected, and having served as Honorary Secretary from then until November 1995, am in a position to report that the committee has been well served over the years by a series of dedicated chairmen. The first was Brian Brookes followed by in succession - Allan Stirling - Richard Thomas - Rosalind Smith - Henry Noltie - Roderick Corner.

As to whether the Committee for Scotland has fulfilled its obligations and promise will be for others to judge.

To look forward - my own special interest is in recording, so I am delighted that there is now definite funding for the *Atlas 2000*, thereby giving an added incentive for field work. The funding is in large measure the result of the foresight and persistence of the President, David Pearman, ably supported by Chris Preston.

As there is to be a national Atlas Workshop this autumn, we were offered one earlier in the year and chose June as it was thought that by that time recorders might have material for identification by the experts. Further, the date would not clash with the field meetings arranged for later in the year. We intend to have at least one other workshop within the life of the project and will ensure that this will be held at a later time in a subsequent year. The workshop, like *Atlas 2000*, is for **all** members and we trust that the project itself and the workshops will be strongly supported in Scotland.

### **Congratulations**

Congratulations are extended to CD Preston on the production of his Handbook *Pondweeds of Great Britain and Ireland*. This is a very welcome addition to the BSBI series. It is packed full of detail and very well illustrated. It is in fact rather more of a textbook than a handbook.

We congratulate also JH Dickson on being awarded the Neill Medal by the Royal Society of Edinburgh in recognition of his outstanding contribution to the understanding of Scotland's flora and for the publication of his *Wild Plants of Glasgow*.

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### **The 1995 Scottish Annual Meeting**

MARK F WATSON

The 1995 Scottish Annual Meeting was held at the University of Stirling under the auspices of the Botanical Society of the British Isles (BSBI) and the Botanical Society of Scotland (BSS). Breaking with tradition, the event was not held in Edinburgh because of the disruption of facilities at the Royal Botanic Garden caused by the building of the new Herbarium and Library extension. This change of venue was a great success, with the usual good attendance of Scottish members and high quality of exhibits: nearly 100 people registered and 25 exhibits were shown. In fact the change probably contributed to the record number of people staying on for supper and the slide show in the evening. The local organiser was Richard Thomas, and a special thanks goes to him for his work on the smooth running of the Meeting, and his expert guidance through the maze of rooms and corridors.

### **Scottish Recorders' Meeting**

Before lunch the Scottish Vice-county Recorders gathered for their annual meeting. In total, 28 Recorders and 21 other members were welcomed by the Chairman, Rod Corner. The meeting was full of interest, with the BSBI New Atlas Project occupying much of the discussion time. David Pearman (President of the BSBI) gave an update on the progress of the project, as there had been major advances since the last Recorders' Meeting in Glasgow. The best news was that the funding contract between the Department of the Environment (DoE) and the Institute of Terrestrial Ecology (ITE) had now been finalised, securing funding for the next 4¾ years. A part-time Atlas Organiser would be appointed early in 1996 with responsibility for organising Atlas based fieldwork, organising Recorders' Workshops and handling the Mastercards. Cameron Crook introduced himself as the new Co-ordinator who will be liaising with the Country Agencies and other bodies and aiding computerisation of recording. Chris Preston explained the structure of ITE and BSBI's responsibilities to the DoE contract and the planned timescale for the inflow of plant records. To spread the influx of computerised and record card data it is planned to have received the records from 50% of British squares by 1998 and the rest the following year (1999 is the last year for fieldwork). Franklyn Perring described the setting up of a County Rare Plant Register to include criteria of grades of rarity. This would be regularly updated

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and be available to local legislators and planning decision makers. Keith Watson finished the meeting with a progress report on the Red Data Book contract.

### **BSBI Scottish Regional Meeting**

In his report to the 65 members attending, the retiring Chairman, Rod Corner, once again stressed the growing importance of conservation matters in the activities of the BSBI Committee for Scotland. This year the BSBI was involved through Plantlife in saving *Carex chordorrhiza* around Loch Naver which was under threat from a plan to raise the water level. The planning for Cairngorm and Ben Wyvis was still in the balance, with the initiative now lying with Scottish Natural Heritage, and the result of the public enquiry into the proposed Lingerbay super-quarry was still awaited. The salvage of the Lanarkshire coal bing with *Epipactis youngiana* was still being pursued.

He thanked the Recorders for their activities, and welcomed the news of the funding for the New Atlas: the next four years were likely to be very busy for us all. It was hoped that the introduction of the Criminal Justice and Public Order Bill would not affect our activities. All the Vice-county Recorderships were filled, excepting 103, Mid Ebudes for which a request for a suitable candidate was made. The vacancy would also be publicised in the New Year issue of *BSBI News*.

The Chairman concluded with a plea for the membership to stay alert to potential conservation threats and report them to the Committee so that they could be taken up by the BSBI. Field Meetings Secretary, Gordon Rothero, reported the success of this year's field meetings and intimated the dates and venues of the next season's events. He made the comment that in 1995, members from south of the border had been quicker to book than those from Scotland, many of whom found themselves only on the reserve list. The *Scottish Newsletter* editors, Allan Stirling and Peter Macpherson, had been pleased with the articles received for the last issue and encouraged new contributors to submit articles. The inclusion of exhibit abstracts had been generally appreciated and would be continued; a view endorsed by the meeting.

Vice-chairman Ros Smith spoke of the dedication that the retiring Chairman had shown during his term of office and the meeting joined her in an enthusiastic vote of thanks.

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### **Illustrated Talk**

David Mardon, the Senior Ranger Naturalist for the National Trust for Scotland (Ben Lawers NNR) presented his views on the Scottish botanical Mecca that is Ben Lawers. His talk, entitled "Ben Lawers, past, present and future", was very well presented with superb slides. The 90 people attending were entertained and educated in the discoveries, successes and losses that have occurred on Ben Lawers during his time on the reserve. Managing an environment that has been so affected by man through the introduction of grazing is particularly difficult. Coupled with the present human pressures from naturalists and walkers, monitoring and managing the populations of the endangered plants is a constant battle. David first showed us views and habitats of the mountain, and then ran through his favourite 18 plants found on Ben Lawers. His skills in close-up photography showed the beauty of the rare tiny *Saginas* that are a particular love of his. Exclosures within the reserve have been successful in showing what the vegetation might have been like before the heavy grazing, and the longer they have been in place the better they are becoming. Monitoring schemes over 5 years (e.g. on the *Woodsia* populations) are giving a new insight into the population balances, and showing that rises and declines in numbers are often neither predictable nor can they be readily explained. Some of the rarest plants are suffering the most. *Saxifraga rivularis* is now down to one plant: the audience was shocked to see the before and after pictures showing wanton uprooting by an unscrupulous collector. David concluded on a happier note that the re-instatement experiments (on willow and juniper) have proved successful, and that he was optimistic regarding the long term plans to buy the grazing rights to the whole reserve.

### **Supper and Slides**

A record 67 stayed on after the meeting for the supper and slides in the University's Court Room. This was 14 more than the previous year and although undoubtedly affected by the change of venue away from Edinburgh and Glasgow, showed the continued increase in popularity of this post exhibition event. After the meal the tables were cleared aside for the slide show hosted by Mark Watson. 12 people exhibited and the whole show was an interesting mixture of plants, people and views, from the serious to the very lighthearted. A summary of the presenters and their subjects is given below.

**E Bullard** - *Primula scotica* (Scottish Primrose)

**JK Butler** - *Salix* hybrids: *Ajuga pyramidalis* (Pyramidal Bugle): and other plants from Naver

**RWM Corner** - unusual plants from Berwickshire and Greenland

**J Edelsten** - *Saxifraga cespitosa* (Tufted Saxifrage) from Ben Avon, *Carex rariflora* (Mountain Bog-sedge) from Lochan Buidhe, and *Potentilla crantzii* (Alpine Cinquefoil)

**L Farrell** - plants and views from the Shetland Field Meeting

**HA Lang** - plants and views of the Black Isle and Greenland

**CW Murray** - plants and views of the islands of Muck, Eigg and Raasay

**RJ Pankhurst** - plants and views from the Harris and Lewis Field Meeting

**FM Perring** - plants and views of Fair Isle

**R Scott & C Bateman** - plants and views of the Black Isle coastline, and *Oxytropis halleri* (Purple Oxytropis)

**AJ Silverside** - plants and views of the Faeroes and Shetland Islands

**AMcG Stirling**, plants of Loch Lomond-side and *Trichomanes speciosum* (Killarney Fern)

## Abstracts of Exhibits

### Plants from Roxburgh and Selkirk

RWM Corner

Among the plants exhibited was the hybrid *Salix aurita* x *S. phylicifolia* (*S. x ludificans*) and *S. caprea* ssp. *sphacelata*, both new county records for VC 80. *Vicia sylvatica* (Wood Vetch) has only one extant site in VC 79, and *Veronica hederifolia* ssp. *hederifolia* (Ivy-leaved Speedwell) was a new VC record (but is probably spreading). *Tilia cordata* (Small-leaved Lime) and *T. platyphyllos* (Large-leaved Lime) from VC 80 were also shown. They are almost certainly overlooked as planted trees.

### Some Scottish Plants at a Possible New

#### Northern Limit in the High Arctic

RWM Corner

Specimens of *Carex atrofusca* (Scorched Alpine-sedge), *C. saxatilis* (Russet Sedge), *Juncus castaneus* (Chestnut Rush) and *Kobresia simpliciuscula* (False Sedge) collected in 1995 from Frigg Fjord, Peery Land, Greenland at 83° 12' N were shown. *Juncus triglumis* (Three-flowered Rush) was at its known northern limit here. The previously reported northern limits for these species were from northern Ellesmere Island in the Canadian arctic.

### Scarce Plants in Assynt

PA & IM Evans

Five scarce species from VC 108 were illustrated. Gordon Rothero recently found *Alchemilla wichurae* on the Glas Bheinn gneiss; the three previous records were on limestone. *Arctostaphylos alpinus* (Alpine Bearberry) occurs in 16 1km squares, tightly grouped on quartzite or sandstone: is its absence elsewhere real or apparent? *Isoetes echinospora* (Spring Quillwort) is recorded from nine 1km squares, with two possible hybrids with *I. lacustris*. The known distribution of *Deschampsia setacea* (Bog Hair-grass) has doubled to 14 1km squares. However, the highlight of 1995 was the discovery of *Sibbaldia procumbens* (Sibbaldia) by Gordon Rothero, in an area of late snow lie at 2000ft; our first localised record for the parish. We are now a quarter of the way though second visits to our 164 tetrads; interim scores range from 67 species on the dourest inland quartzite, to 250 in the richest coastal areas.

### Aberrant Plant Forms in Lanarkshire (VC 77)

P Macpherson

Under the appropriate definitions the following aberrations were exhibited. Herbarium specimens of fasciated forms of Lesser Celendine (*Ranunculus ficaria*) and American Willowherb (*Epilobium ciliatum*), dwarfism affecting Melancholy Thistle (*Cirsium helenioides*) and monstrosity of Wavy Bitter-cress (*Cardamine flexuosa*). Photographic evidence of proliferation affecting Water Avens (*Geum rivale*) and of a peloric form of Common Spotted-orchid (*Dactylorhiza fuchsii*).

### A Chlorotic *Epipactis helleborine*

DR McKean

Three spikes of Broad-leaved Helleborine showing this unusual condition were noted from an Edinburgh housing estate (VC 83). No reason for the cause of the chlorosis could be found, but close mowing may have been a factor.

### A Mysterious *Orobanche hederæ* at the Royal Botanic Garden Edinburgh

DR McKean

Ivy Broomrape mysteriously appeared in the planting of *Hedera maderensis* ssp. *ibirica*. No one knows how it got there, but it is known to grow in other botanic gardens in the south.

### An Unidentified Plant from the Loch Lomond NNR

J Mitchell & A McG Stirling

A herbarium specimen was exhibited of an unidentified plant found in two places on the mainland section of the Loch Lomond National Nature Reserve (VC 99) in late summer 1995. The plants were procumbent and rooting at the

nodes, with opposite elliptic leaves. The habitat was drying-out muddy margins, of a periodically flooded area and river banks. Only one plant was seen at each site, and its identity still remains a mystery!

#### 1995 in Vice-county 104 (North Ebudes)

CW Murray

*Koenigia islandica* (Iceland-purslane) was surveyed for the Red Data Book plants in Scotland: maps showed i) the sites seen by the vice-county recorder between 1958 and 1978; ii) those found in 1995; and iii) two of the six routes taken in 1995. *Rhynchospora fusca* (Brown Beak-sedge) previously known only from Rum, was found in two separate sites on Skye in 1994 and 1995. *Carex diandra* (Lesser Tussock-sedge) previously only recorded in Skye, and rare there, was added to the species list for Muck in June 1995.

#### A Local Community Flora

A Rutherford

The Helensburgh Community Council and the West Dunbartonshire Natural History Society are assisting with the production of a local flora within the Community Council boundary (VC 99). The exhibit displayed a map of the area and was illustrated by photographs and postcards showing the nature of the habitats, from seashore to the moors and rich pockets in the town. The recording is being done on a 1km basis, a draft sample page was exhibited.

#### An Inland Record

##### for *Carex maritima* (Curved Sedge)

AJ Silverside & EH Jackson

The exhibit reported the finding of an inland, roadside colony of *Carex maritima*, found by Loch Naver, W Sutherland (VC 108). It was discovered while a punctured tyre was being changed! The colony occupied 2m<sup>2</sup>, with approximately 300 fruiting inflorescences. On the metalled road surface it is virtually the only vascular plant, and the colony extends onto an adjacent *Agrostis capillaris* / *Festuca filiformis* sward. The sedge has apparently been introduced with sand or gravel. It normally requires a plentiful supply of fresh water, and as the site occupies a slight depression at the roadside it must receive rainwater run-off from the metalled surface. The prolific fruit production on the road edge suggests the possibility of further spread to similar habitats on the wheels of vehicles. The colony is highly vulnerable to disturbance (e.g. resurfacing) and is unlikely to persist.

#### Flower Paintings

OM Stewart

Paintings of flowers seen on the BSBI field meeting to Shetland in August 1995 were exhibited. These included 10 of *Hieracium* section *Alpestris*. Other paintings shown included plants seen in 1995 in Kirkcudbrightshire and Glasgow.

#### Interesting Plants seen in 1995

OM Stewart

Specimens were exhibited of: *Atriplex longipes* (Long-stalked Orache), the complex *Potentilla* hybrid, *P. x mixta* from VC 73 (Kirkcudbrightshire), *Senecio x albescens* (*S. cineraria* x *S. jacobaea*) from VC 72 (Dumfries), *Solidago graminifolia* (Grass-leaved Goldenrod) from Cumbria (VC 70), *Nuphar pumila* (Least Water-lily) and *N. x spenneriana* (*N. lutea* x *N. pumila*) from Loch Stroan VC 73, *Polygonum boreale* (Northern Knotgrass) thought to be a contaminant of seed mixtures as it has been found on five newly seeded roadside verges in VC 73 (particularly since 1994). The alien Bird's-foot-trefoil, *Lotus corniculatus* var. *sativus* has also appeared in similar circumstances.

#### Studies of Frog Orchid Distribution

J Taggart

The exhibit described a study to understand further the factors influencing the distribution and abundance of Frog Orchid (*Coeloglossum viride*) in Scotland. Five widely spaced sites were visited: Ben Ime in the Argyll hills (VC 98); Dumbrook Loch Meadows (VC 86) north of Glasgow; Fife Ness (VC 85) with shell sand; Balgair Muir (VC 86) an old cornstone quarry; and Feoch Meadows (VC 75) a grassland site in south Ayrshire. From these sites vegetation data have been collected and analysed in comparison with the other sites. Recordings of the sizes of the dominant associated species also included the Frog Orchids. Soil samples were taken from each site for chemical analysis.

#### The effect of *Rhizobium leguminosarum* strains on the growth of *Vicia faba* plants and the properties of the root nodule symbiosis

G Zhiznevskaya

The inoculation of leguminous plants with *Rhizobium* results in the formation of root nodules where the symbiosis between the two organisms takes place. Quasi organelles called symbiosomes carry out the nitrogen fixation, and the integrity of the symbiosome membrane is of paramount importance to the success of the symbiotic interaction: the membranes of the effective nodules were more stable and had less fluidity than in the ineffective nodules. Indigenous strains of *Rhizobium leguminosarum* cv. *viciae* are widely distributed in nature. The potential effectiveness of inoculation in the soils of Latvia is 15-45% for the Broad Bean (*Vicia faba*). Symbiotic properties of some Latvian *rhizobia* strains were estimated from nodules of Broad Beans grown in different soil types. Broad Bean cv. 'Lielplatones' when inoculated with an effective *Rhizobium* strain (strain 501) shows great increases in top plant weight (338%) and nodule weight (142%) when compared with an ineffective strain (strain 106), as measured after flowering.

### Root Nodules of Sea Buckthorn

G Zhiznevskaya

About 160 species of non-leguminous plants are known to be capable of entering into a symbiotic relationship with nitrogen fixing microorganisms. Most of these are woody shrubs that play an important role in natural nitrogen-poor ecosystems by enriching the soil with biologically bound nitrogen. The root nodules of Sea Buckthorn (*Hippophae rhamnoides*) are composed of a meristem cortex and stele infected with the actinomycete fungus *Frankia elaeagni*. Our investigations into this symbiotic relationship showed that greatest nitrogen fixing occurred during flowering and fruit initiation. Plants grown in molybdenum deficient soils showed a decrease in the number of endophyte vesicles in the nodules, and a corresponding decrease in nitrogen fixation activity. During ageing there is a destruction of cytoplasm of the host cells which is mirrored by the destruction of the symbiont. Endophyte vesicles were seen to die during the winter, with only a few viable fungal hyphae remaining to replicate the endophyte in the spring, the nodules themselves were seen to last about three to four years.

### Exhibits which are the subject of articles in the Newsletter.

- Potentilla cranzii* (Alpine Cinquefoil in VCs 92 & 94) J Edelsten  
A Scottish Record of *Epilobium pedunculare* AMcG Stirling  
The Australian Swamp Stonecrop (*Crassula helmsii*) John Mitchell

### Also Exhibited

- Alien Study Group - *Allium paradoxum*  
(Few-flowered Leek) ME Braithwaite  
Berwickshire (VC 81) 1995 ME Braithwaite  
Caithness Plants (VC 109) JK Butler  
Current Research on the Conservation and  
Ecology of *Primula scotica* (Scottish Primrose) N Cowie,  
C Sydes & C Legg  
An Unusual Form of *Carex echinata* (Star Sedge)  
from VC 92 (S. Aberdeen) K Fallowfield  
*Potamogeton pectinatus* x *P. vaginatus*:  
a relict hybrid in the British Isles? PM Hollingworth,  
RJ Gornall & CD Preston  
Botanical Books from Oundle F & M Perring

### The University of Glasgow Herbarium (GL)

This important collection, formerly located at the University Botany Department, has recently been rehoused in the nearby Graham Kerr Building, Division of Environmental and Evolutionary Biology.

The 41,500 sheets of British and Irish vascular plants are now accommodated, together with considerable collections of cryptogamic species, in 75 purpose-built metal cabinets in an older refurbished laboratory now known as the Hopkirk Laboratory, dedicated to studies in taxonomy, archaeobotany and palaeoecology. The name commemorates Thomas Hopkirk, author of *Flora Glottiana* (1813).

The British vascular plants have been computer-catalogued, a considerable contribution to the accessibility and user-friendliness of the herbarium. It is anticipated that the collections will now be much more utilised by both professional and amateur botanists, thereby justifying fully, the effort and expense involved in the upgrading of the herbarium.

Credit for initiating the modernisation of the herbarium is due to Dr JH Dickson, to whom enquiries regarding the herbarium content, or access to it, should be directed at the Graham Kerr Building, University of Glasgow, G12 8QQ, (0141-339-8855 ext 4364).

### Yellow Water-lilies in Kirkcudbrightshire

OLGA M STEWART

While botanising at Loch Stroan (VC 73) in 1995 I could see, but was unable to reach, a small yellow water-lily. In his Loch Survey in Galloway, 1905, *Proceedings of the Royal Society of Edinburgh*, GT West recorded *Nuphar lutea* (Yellow Water-lily), *N. pumila* (Least Water-lily) and the hybrid *N. x spennerana* from the Loch.

I contacted the Forestry Commission to ask whether there was a boat that I could borrow. There was not but they were willing to bring a boat from Loch Dee. Two foresters took me out and we looked at every lily pad on Loch Stroan. By the time we had circumnavigated the loch they knew that *N. pumila* had 11-18 lateral veins on each side of the leaf and 7-12 rays on the stigmatic disc, *N. lutea* had 23-28 lateral veins and 9-24 rays and the hybrid,

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15-22 lateral veins and 9-14 rays on the disc (Cover illustration). I had already recorded *N.lutea* and *N. x spennerana* in the Loch and was delighted to find one area of *N.pumila*. As far as I could judge, it was in the same part of the loch from which GT West had collected his record 90 years before.

West had also recorded, in 1905, all three yellow water-lilies in Loch Ken. As I had seen *N.lutea* and the hybrid in this loch I took advantage of the offer of a boat trip with the ranger, but was unable to find the smaller parent. However the outing was not without interest. I saw *Utricularia vulgaris* (Greater Bladderwort) for the first time in the VC, although I knew that it had been seen previously by Rae Hawley. The other item of note was in respect of loch management. The water level had been kept unnaturally high for some time but had recently been lowered. An area under the viaduct had become exposed and *Isoetes lacustris* (Quillwort) was growing so thickly that at first I thought that I was walking on a carpet on *Littorella uniflora* (Shoreweed).

### Hybrid Horsetails in Kirkcudbrightshire

OLGA M STEWART

One of the most common hybrids in VC 73 is *Equisetum x litorale*, (Shore Horsetail). It lives up to its name as it can be found all along the coast in marshy places on the landward side of our merseland and at the back of the dunes, where it has considerable populations. It has also an extensive site in a ditch, north of Dundrennan, extending for half a mile.

Six years ago while going through a marshy area near the shore on Southernness golf course, I collected a horsetail that had an odd sterile cone. It was identified by Dr Chris Page as *Equisetum x dycei*. Nearby was growing *E. fluviatile* (Water Horsetail), which is one of its parents but the other parent, *E. palustre* (Marsh Horsetail) was not seen in close proximity. The golf course has altered the area and it is not as wet as it used to be, also, with the very dry summer of 1995 I was unable to re-find the taxon.

On another occasion while walking on the east side of the lighthouse searching for cowslips which are scarce in the county, I took a shortcut through a large clump of common reeds and sedges and came across another coned horsetail. It was fairly similar to *E. x dycei* but the branches were like *E. arvense* (Field Horsetail). This plant was identified by Dr. Page as *Equisetum x rothmaleri*. Within half a mile therefore, we have three different hybrid horsetails.

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### *Potentilla neumanniana* at Inchrory, Banffshire

JOHN EDELSTEN

The earliest record of *Potentilla neumanniana* (Spring Cinquefoil) at Inchrory, Tomintoul, is "Inchrory, east of house NJ18-07-, EC Wallace 2.6.58!"

The exclamation mark indicates that the plants had been seen by the VC 94 Recorder, Mary McCallum Webster. The second record is 24.6.1967 by MMcCW from Creag Builg, Inchrory NJ18-07-. A specimen was deposited in the herbarium at the Royal Botanic Garden, Edinburgh. It had not been determined by a referee. The third record is 13.6.1982 by MMcCW, "Abundant, river shingle, Inchrory NJ16-10-".

For some time I had been unhappy about these records, partly because the plants were not mat-forming, and also because there had not been a determination by a referee. I had intended collecting specimens but the populations were too small.

Since 1989 the Inchrory area, both north and south of the lodge, had been over-run by rabbits. This was partly because of a succession of mild winters, and also because there was no longer a market for rabbits, and it was uneconomical for the estate to shoot them.

In 1991 I counted 30 plants on the river shingle by NJ168094; in 1992 there were three; in 1993 nil. In 1993 shooting was resumed and thousands of rabbits were shot. On 5.6.94 I visited Inchrory together with Kathy Fallowfield and Eddie Bruce. We counted 400/500 plants in flower in various places and I collected specimens from NJ168094, 180065 and 180067 and sent them to Brenda Harold together with a photograph showing that the plants were not mat-forming. The determination was that they were *Potentilla crantzii* (Alpine Cinquefoil).

Quite independently, Allan Stirling had inspected MMcCW's 1967 specimen at Edinburgh and had come to the same conclusion. The locality on the label was "by the Builg Burn, two miles S. of Inchrory". This does not agree with the locality on the species record card, but is nearer to NJ180067 where I collected a specimen on 5.6.1994. It is possible that the record was entered on the species card after an interval of time, relying heavily on memory.

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Similarly, it is possible that the record for NJ16-10- should be NJ168094. On 9th June 1991 I counted 30 plants at this grid reference, then walked north along the river bank as far as the bridge at Dalestie NJ161110, ie through NJ16-10-, but did not find any plants.

My conclusion is that the records for *P. neumanniana* in 10km squares NJ10 and NJ11 are unsubstantiated and should be cancelled.

All the specimens together with a specimen of *P. neumanniana*, were exhibited at the Scottish Annual Meeting at Stirling on 4.11.95.

*Editorial comment:-* It is clear from the above that care should be taken in distinguishing between *P. neumanniana* and small plants of *P. crantzii*, especially where the latter is growing in situations accessible to grazing animals.

## Conservation Matters 1995

RWM CORNER

During the past year several conservation matters relevant to the Scottish flora have been discussed by the BSBI Committee for Scotland. I feel that conservation is a very important part of our agenda and that the membership of the society should take an active part in the conservation of our flora.

The successful outcome of the Loch Naver inquiry was most heartening. The plan to raise the level of the loch to improve the fishing was rejected by Highland Regional Council. About one half of the population of the northern-montane *Carex chordorrhiza* (String Sedge) would have been lost from its classic site. There had been strong objections from botanists and ornithologists.

The Cairngorm Funicular application is being considered at present. This development is being strongly opposed by many groups including SNH. There are plans to transport some 250,000 non-skiers in the summer months to near the summit of Cairngorm. This will result in an unacceptable degree of damage and disturbance to the fragile montane ecosystem. There are always going to be threats to this unique mountain area in the future. If you feel strongly enough about its protection then you can help by joining the Cairngorm Campaign (PO Box 39, Inverness IV1 2RL).

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The Ben Wyvis Funicular plan is also being strongly opposed. Much depends on the outcome of the Cairngorm inquiry. The famed Rhacomitrium heath would be under intense pressure if this development is allowed.

The attempt to save the population of the rare *Epipactis youngiana* (Young's Helleborine) by Peter Macpherson and Keith Watson has resulted in complex negotiations with the coal mine's owner. The outcome is still uncertain. We all hope that the plants can be saved.

The result of the inquiry on the Lingerbay superquarry on Harris has still to be announced. The blight on the landscape in this area of outstanding natural beauty will I hope be prevented.

Skiing developments are a continual threat to montane communities and the plans for the possible extension of the Aonach Mor development into the rich northern corries are being monitored. These are only some of the conservation matters the committee discussed. I would encourage members to write letters of objection to planning authorities themselves as this gives an indication of the strength of feeling against damaging developments.

Finally, I must mention Plantlife's Scottish Officer, Michael Scott. He is strongly supported by the committee and we thank him for the hard work he has put into the conservation of the Scottish flora.

## BSBI Co-ordinator's Role

CAMERON S CROOK

Since my last note in *BSBI News* there have been a number of changes - some good some bad, but on the whole significant progress has been made towards goals which have been set. My main thrust has been to computerise botanical records held by vice-county recorders especially in view of Atlas records. To that end, a questionnaire was sent out to assess the level of computerisation amongst VC recorders in Britain. Of the 66 or so recorders who have computers, 16 are in Scotland with a further six planning to acquire one: eight wanting their records held by a link person and only two not wanting their records computerised by anyone. A grant was sought from the Country Agencies but this has recently two-thirds fallen through in as much as SNH and EN have been unable to contribute, presumably due to lack of funds. CCW was the only authority able to contribute but as you can imagine, only Welsh recorders will be able to benefit from this. Nevertheless, this is not where it will end and grant aid of some form will be sought elsewhere. It is

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hoped that ultimately, all VC records in Scotland will be held on computer, by someone (preferably the VC recorder), somewhere, by the end of the next eighteen months!

Related to this is the development of software suitable for botanical recording. Many of you will be aware of, if not already users of "Recorder". This particular software package is very comprehensive and is pushed by JNCC as the "Standard Biological Recording" package. However, it is not easy to use and takes time to learn. Furthermore, data is not easily transferred between users and export of information to Monks Wood is not straightforward. Nevertheless, despite these problems it is probably the best, most comprehensive package currently available.

In fact, it was these particular problems which led us to look for alternatives, especially for software packages which are user friendly. Indeed, we have found two other suitable packages, both of which have been recently modified for use by BSBI.

Firstly, there is ERICA which was developed by Colin French, VC recorder for West Cornwall. This is similar to Recorder in respect of its comprehensiveness but it does not have the drawbacks that have become associated with Recorder. It is possible to transfer data from one user of ERICA to another (and even between other conventional databases) and export is comparatively simple. It is also linked to DMap. This package will become available within the next six weeks or so and is likely to cost in the region of £30-40.

Secondly, there is Aditsite which has been developed by Adit Ltd. in Bangor. This is a Windows based package and very easy to use. It is based on Microsoft Access, a very well known database package, and can accept data from other databases and export data with ease. This too, is linked to DMap and comes also with its own mapping software. This is available now for around £100 after discount, although some last minute modifications are taking place so if you are interested, it may be best to wait a short while. Further details of any or all of these packages are available from me on request.

In addition to the development of software, because of the number of different software packages already in use, standards for the transfer of data between users and to BRC have been drawn up. Copies of these were

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distributed with the April *BSBI News* but anyone who would still like a copy can obtain one from me on request.

Another main aspect of my role as Co-ordinator is to forge links between BSBI and the County Agencies. Preliminary meetings have now been held with Dr Chris Sydes, the SNH botanist who will be liaising with regional officers with a view to links being made between VC recorders and SNH. Further meetings and liaison will take place over the coming year building upon these initial meetings. BSBI have been invited to take part in "Pathfinder" meetings where discussions over Species Action Programmes in Scotland will take place. To date, meetings have taken place regarding such plans for *Lychnis viscaria* (Sticky Catchfly), *Pilularia globulifera* (Pillwort), *Primula scotica*, (Scottish Primrose), *Saxifraga hirculus* (Marsh Saxifrage), *Cicerbita alpina* (Alpine Blue-sow-thistle) and *Linnaea borealis* (Twinflower).

Finally, I would still be interested in hearing from anyone in Scotland who has a particular interest in computers or assisting VC recorders by putting their records on computer or liaising with SNH officers and/or the Wildlife Trust and other Non-government Organisations involved with plant recording (eg BRISC).

8 Woodstock Close, Lostock Hall, Preston Lancs. Telephone and Fax (01772) 316717

### *Epilobium pedunculare* - A Scottish Record

ALLAN STIRLING

*Epilobium pedunculare* (syn. *E. linnaeoides*) is one of the three New Zealand willow-herbs of small size and creeping habit found in the British Isles. All appear to have been introduced as rock garden plants. By far the best known is the familiar *E. brunnescens* which has become widespread and thoroughly established in open, damp rocky or stony habitats throughout the country. A rather similar species, *E. komarovianum*, is seldom reported. It is distinguished by its veined leaves which are bronze-coloured below.

*E. pedunculare* is readily recognised by its larger leaves which are marginally serrate-dentate (Fig 1). Although sometimes occurring as a not-too-troublesome garden weed, this Rockery Willow-herb has been recorded as

established in only a few places, notably in two localities in West Galway, Ireland.

In July 1995 *E. pedunculare* was found by the writer and John Mitchell in considerable quantity, thoroughly established in shady, damp woodland by the Duke's Pass road, Aberfoyle, West Perth (NN 516015). The plants were growing by a path leading to a long-abandoned quarry, and also among mossy, overgrown quarry debris. *E. brunescens* was also present in quantity in the nearby quarry in more open, exposed situations.

The only other record of *E. pedunculare* which has come to notice is as a weed at Logan Gardens, Wigtownshire, where Mr D McClintock recorded it in 1974.

It should be mentioned that the epithet *pedunculare* has been used erroneously in the past for *E. brunescens*.

The illustration is of an Irish specimen for which I am indebted to Dr P Macpherson.

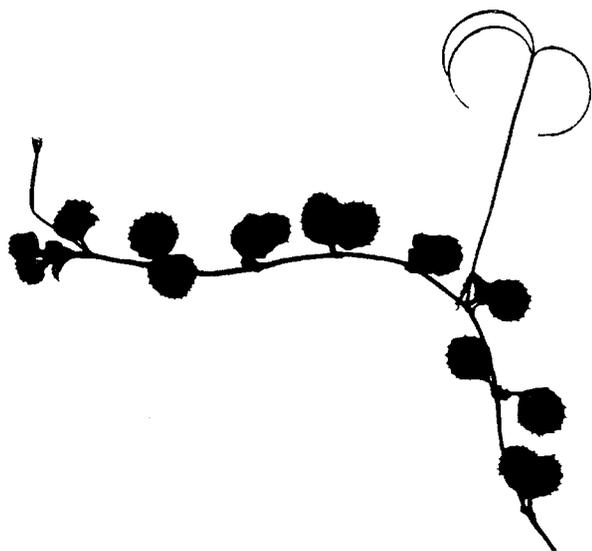


Fig 1 - from herbarium specimen of *E. pedunculare* (x 0.75)

## Colonisation of an Abandoned Railway Viaduct

P MACPHERSON  
EK LINDSAY

While recording in the Dalmarnock area of Glasgow (VC 77) in the late summer of 1994 we climbed a wooded slope and discovered a large scrubby plateau. When we reached the south-west corner we found that an old railway viaduct led off at a level high enough to cross adjacent roads.

It had been fenced off in two places. At the first we could swing round the end of the fence by standing on the parapet and at the other a gap had been cut allowing further access. The viaduct stretched for a distance of 300 yards. Subsequent enquiry elicited the facts that the plateau had been a goods yard and that the line had closed in 1965.

We returned in the early summer of 1995 to confirm some of the tentative identifications and make further records.

The viaduct was less scrubby than the plateau with just a few scattered willow (*Salix* spp. and birch (*Betula* spp.) the tallest being about 15 feet high. There were also rather smaller specimens of Common Whitebeam (*Sorbus aria*), Rowan (*S. aucuparia*) and Orange-berried Whitebeam (*S. croceocarpa*). Growing in the old clinker were most of the plants which might be expected as a result of natural dispersal but the list included one single plant of Northern Marsh-orchid (*Dactylorhiza purpurella*). However the most interesting finding was that all along the edge of the track there were numerous plants in a situation indicating that they were the result of droppings from birds perched on the parapets. Five taxa of cotoneaster were present - *C. astrophoros* (1st record of the plant growing in the wild in the British Isles), *C. dielsianus*, *C. sherriffii*, *C. salicifolius* (including the cultivar 'Gnom', and *C. suecicus*. There were seedlings of "Wild" Cherry (*Prunus avium*), Darwin's Barberry (*Berberis darwinii*) and Oregon-grape (*Mahonia aquifolium*). One plant of Juneberry (*Amelanchier lamarckii*) was seen both in flower and in fruit and there was a single plant of *Rosa glauca* (Red-leaved Rose). Leaves of a small tree were sent for identification and considered almost certainly to be Medlar (*Mespilus germanica*).

We have recorded thoroughly throughout most of Dalmarnock but can only pinpoint a source for two of the aliens. There is a stand of Juneberry about 200 yards from the seedling plant in waste ground which was once an industrial estate. At that site the plants are spreading vegetatively and each year produce a good crop of berries. There are a number of planted cherry

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trees in a roadside bed just below part of the viaduct. A single plant of *Rosa glauca* grows alongside a lamppost in a side street in Dalmarnock but the source has not been located.

As there is still much bare ground we will continue to monitor the site in the anticipation of finding new arrivals.

#### Acknowledgements

We are grateful to Mrs J Frier and Messrs DR McKean and AMcG Stirling for help with identification.

### **The Australian Swamp Stonecrop (*Crassula helmsii*) A less than welcome addition to the flora of the Upper Forth Valley**

JOHN MITCHELL

On 10th August 1995 some half dozen plant of *Crassula helmsii* were found at the western end of the Mill Dam (NS 613919), Kippen Muir, in the Upper Forth Valley. The live specimen exhibited at the 1995 Scottish Annual Meeting is the prostrate form which occurs on exposed mud, having much shorter stems and smaller leaves than submerged plants. Although previously unrecorded for West Perth (VC 87), *C. helmsii* is known from a garden pond at Deanston, near Doune, nine miles from the dam (NW Taylor *pers. comm.*).

A former rural industrial water body, the Mill Dam is now used exclusively for fishing and wild fowling. Sources of the *Crassula* introduction could include:

- planted as an oxygenating species in this poorly vegetated site.
- being near a main road, the dam may have been used as a convenient spot for disposing of the unwanted contents of an aquarium.
- accidental introduction of the plant by waterfowl (ducks, herons etc) or by fishermen visiting the dam. The most likely explanation.

*C. helmsii* (under the name of *Tillaea recurva*) has been available from water garden stockists in the UK since at least 1927. It was first noticed growing wild in southern Britain in 1956, being recognised as an established alien plant by 1961 (*Watsonia* 5, 59-63). Compared with its rapid spread in

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England, colonisation of Scotland by *C. helmsii* has been relatively slow since it was first discovered near Dunoon about 25 years ago. Nevertheless it is widely distributed throughout the country, with confirmed reports from the Borders to Banffshire and Skye. Capable of developing into dense mats smothering native aquatic plants, *C. helmsii* must be considered a potential threat to Scotland's important wetland communities.

A few words of warning - *C. helmsii* can regenerate from the smallest fragment so that field workers coming across the species should clean the treads of boots before moving on to other wetland sites.

### **Botanical Requests**

#### **[1] Japanese Knotweed Survey**

This is an appeal for material to be used in a study of the genetic diversity of *Fallopia japonica* (Japanese Knotweed) in the British Isles. In order to produce a comprehensive study we wish to sample from as many locations as possible and would like to enlist the help of BSBI members in Scotland, to collect rhizomes of *Fallopia japonica* from their local areas.

I would be most grateful if you would send me fresh samples of rhizome material (approx 6 inches, preferably with bud), wrapped in moist newspaper and sealed in a polythene bag, along with some leaf material for herbarium specimens. The following information is also required:

Date: Location: Site description/approx area covered: Vice County:  
OS Grid ref: Collected by: Address:

Please send material to Michelle Hart, Botany Department, Adrian Building, University of Leicester, University Road, Leicester LE1 7RH.

I thank you for your help and I will of course refund postage costs.

#### **[2] Ancient Oaks and Native Forest in Scotland**

In order to extend our work on the post-glacial history of native British trees we would like to sample from areas, such as Scotland, from which we have few specimens. One area of interest is the genetic variation in ancient oaks (*Quercus robur* and *Q. petraea*). We have collected and analysed material

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from some ancient Scottish trees (Cadzow and Lochwood Castles and the Birnam Oak), but we wish to know of other notable trees from which we can collect material this summer. Trees > 20ft girth at breast height or from known ancient woodland we assume to be native and therefore ideal for our study. Our interest extends to other native trees, including alder, hazel, hawthorn and aspen. We are asking for the following information from Scottish BSBI members:

- the location of notable ancient oak trees, with details of size, possible age etc.
- the location of known ancient wildwood including site and access details and tree species present.

Andrew King and Colin Ferris, Department of Botany, University of Leicester, University Road, Leicester LE1 7RH

### [3] *Rubus spectabilis* (Salmonberry)

In Northern Ireland this shrub is becoming a serious threat to lowland deciduous woodland. I am researching the status and distribution of the plant in the British Isles. I should be grateful if BSBI members in Scotland would provide me with any information that they may have on the species. The information requested includes: location, grid reference, area covered, habitat and potential threat to the habitat.

Jim Paterson, School of Applied Biological and Chemical Sciences, University of Ulster, Coleraine BT52 1SA

### A Local Community Flora

ALISON RUTHERFORD

Following on my comments on the flora of a built-up area (*Scottish Newsletter* 13, 1991) I decided to compile a flora not only of the town of Helensburgh but of all the area within the Helensburgh Community Council boundary (VC 99).

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Habitats within the boundary include a slightly basic moor, two burns and a river, two base-rich glens, agricultural land, three reservoirs and an old skating pond rich in aquatic species - *Carex vesicaria* (Bladder Sedge), *Equisetum fluviatile* (Water horsetail) and *Potentilla palustris* (Marsh cinquefoil) among others. There are pavements, old mortar walls rich in ferns, unmanicured paths, grotty spots with established garden 'chuck-outs' and wet ditches. In one of the latter I was surprised to see a *Mimulus* (monkeyflower) in a very central part of the town. The grass verges of the streets are frequently well furnished with *Luzula campestris* (Field Wood-rush) and in summer many are powder-blue with the Slender Speedwell (*Veronica filiformis*). A stretch of the Clyde shore fronting the town is not without interest, one tiny area having the only clump of *Bolboschoenus maritimus* (Sea Club-rush) in my study area, although it is more common further east. There are also the scarce *Ranunculus sceleratus* (Celery-leaved Buttercup) and *Catabrosa aquatica* (Whorl-grass) - the latter in only one other site in the county.

The very mild and rather damp climate encourages slightly tender exotics to become established. *Soleirolia soleirolii* (Mind-your-own-business) is in four 1km squares and Algerian Ivy (*Hedera algeriensis*) is now ramping merrily in a wood in a variegated form 'Gloire de Marengo' (Fig 1) - This seems to be a 'first' for Scotland. Cabbage-palms (*Cordalines*) flower profusely but hoeing and weedkillers soon put paid to seedlings. We have two unidentified *Cotula* species (buttonweeds), both in mown grass, which doesn't make for easy identification.

Assistance from Allan Stirling has made it possible to increase greatly the tally of brambles and roses, also sedges and grasses, especially in the built-up areas. There is nothing like this sort of challenge to urge one to investigate every corner (and some are quite tricky to enter!). As a result some of the finds this past summer have been very rewarding.

In the spring it is intended to seek early-flowering plants, which in some cases means beating eager beavers with their mowers!. The snowdrops require some attention, so far one colony is not *Galanthus nivalis*. The non-bulbiled Lesser Celandine (*Ranunculus ficaria* ssp *ficaria*) is not as common as its more robust cousin and may have been overlooked.

Only about eight squares in the north of the area, remain to be surveyed. These comprise mainly hill pasture with a more limited flora.



Fig 1 *Hedera algeriensis* 'Gloire de Marengo' (x 0.67)

## Is it Really All That Time Ago ?

GH BALLANTYNE

Following retirement at the end of 1994, I decided that during 1995 I would concentrate my activities on the district round Kirkcaldy, if only to renew my acquaintance with those areas where I cut my botanical teeth forty years ago. I'd visited several of course, in the intervening years but there were some where I had not been for a long time and others where I knew that changes had taken place.

My first pilgrimage was to where it all started. My home town of Kirkcaldy is well off for public parks and nearby policies, so in early May it was along to Ravenscraig Park to re-find my initial three wild flowers — Red Campion (*Silene dioica*), Lesser Celandine (*Ranunculus ficaria*) and Wild Hyacinth (*Hyacinthoides non-scripta*) (which I refuse to call Bluebell). All three, predictably, were thriving with carpets of the last forming a particularly pretty picture. Nearby, I was pleased to find a number of less common plants I'd come across in subsequent summers. These included some that were established and thriving - Monk's-hood (*Aconitum napellus*), Leopard's-bane (*Doronicum pardalianches*), Bistort (*Polygonum bistorta*), Crow Garlic (Wild Onion, *Allium vineale*) and Wood Sedge (*Carex sylvatica*).

Another port of call (literally), later in the season, was to the nearby harbour and adjacent Pathhead Sands. By the late 1950s I had realised that here was a haven for unusual flowers, for at that time and for a few years thereafter, the import of grain for the neighbouring maltings produced a number of foreigners, or aliens as I discovered they were called. (Odd how the emphasis of a word's meaning can change — casuals is now the expression, with aliens mostly referring to deliberate introductions.) (Eds. see Macpherson *et al*, *BSBI News* No 72!). Oxford Ragwort (*Senecio squalidus*) was among the first of those I identified and it has since spread widely over the immediate area (and also my garden, to which I transferred a couple of plants some years ago). Crucifers, as one would expect, were frequently found, including such as *Erucastrum gallicum* (Hairy Rocket), *Rapistrum rugosum* (Bastard Cabbage), *Conringia orientalis* (Hare's-ear Mustard), *Neslia paniculata* (Ball Mustard), *Berteroa incana* (Hoary Alison) and *Myagrurn perfoliatum* (Mitre Cress). There were three or four melilots, notably *Melilotus alba* (White Mellilot), which for several summers recently has covered Pathhead Sands (and the shore farther east at West Wemyss as well); umbellifers such as Shepherd's Needle (*Scandix pecten-veneris*) and Coriander (*Coriandrum sativum*); composites like *Madia glomerata* (Mountain Tarweed) and

*Artemisia biennis* (Slender Mugwort); while grasses were represented by *Lolium temulentum* (Darnel), *Anisantha diandra* (Great Brome), *Alopecurus myosuroides* (Black-grass) and of course several cereals. At the time, I suspect that those two inveterate investigators of incomers (and arch rivals) Mary McCallum Webster and Betty Beattie, were somewhat envious of my discoveries. Lately it has been the turn of Buddleia (Butterfly-bush, *Buddleja davidii*) to colonise the area along with two or three difficult michaelmas daisies and mints — not to mention an evening primrose of which I could make very little. I was therefore pleased to be told by John Bowra, at the September Lancaster Conference, that it was indeed one of the complex hybrids into which most of the *Oenotheras* have turned.

But the **real** wild flowers were by the Forth on the south side of Kirkcaldy. During and after the war my parents went for a walk every Sunday afternoon, a favourite being along the shore towards Kinghorn. My first botanical recollection is of my mother picking some orchids and taking them home to adorn the piano - but not for long, as we very soon became aware that they stank of cats! A decade or so later, I discovered that they were Early-purple Orchids (*Orchis mascula*), and during the next year or two, I was to spend the proverbial, many a happy hour, coming across a wealth of seaside flowers. Among these were the essence of sea braes and rocky inlets: Thrift (*Armeria maritima*), Sea Campion (*Silene uniflora*), Common Rock-rose (*Helianthemum nummularium*), Wild Thyme (*Thymus polytrichus*), Common Restharrow (*Ononis repens*), Purple Milk-vetch (*Astragalus danicus*), together with an especially good spot that has both Bloody Crane's-bill (*Geranium sanguinum*) and Meadow Crane's-bill (*G. pratense*), and Viper's Bugloss (*Echium vulgare*) the last two soon proving to be among my all-time favourites), White Stonecrop (*Sedum album*), Crow Garlic and others. Later I found that not far off was a real rarity, Wild Clary (*Salvia verbenaca*) in what may be its only Scottish station, with, near at hand, Hemp Agrimony (*Eupatoria cannabinum*) in one of its few Fife localities.

My interest in plants co-incided with the publication of McClintock & Fitter's *Pocket Guide to Wild Flowers*. It was a couple of years until I was given a copy as a present - and life then became much simpler. Instead of ploughing through poor descriptions and inadequate illustrations, I was now able to put a name to most things I found, including many that just simply did not appear in the older books. The star system for rarities too was a great help (preventing several gaffes) while I still remember the thrill at having my first two "three star" plants confirmed: Few-flowered Leek (*Allium paradoxum*) now a bad weed locally and (*Aremonia agrimonioides*). The latter grew -

unfortunately I have to use the past tense, as it has been shaded out - in Raith, a large estate on the outskirts of Kirkcaldy. Oddly enough its other central Scottish station was reported to be Rait in the Carse of Gowrie, although the 1992 *Checklist of the Plants of Perthshire* mentions it from Kinnoull Hill only. (I'm pleased to see that the *Checklist* calls the plant Aremonia, so much more pleasant than Bastard Agrimony. Raith too was where I came across a puzzling willowherb in 1959. It turned out to be American Willowherb (*Epilobium adenocaulon* as it was in those days), not quite a first for north of the border as I was beaten to it by a month or two elsewhere. I'm sure that the experience of identifying many of the introduced/planted species there, sowed the seeds of my interest in introductions.

It was good during 1995 to re-discover some plants I had not seen for years and indeed had thought were gone, along with a few newcomers either to Kirkcaldy District or to VC 85. Spring Cinquefoil (*Potentilla neumanniana*) had disappeared from two of its three local stations and I feared for the third, but a good search revealed a few plants. I was sure that Giant Horsetail (*Equisetum telmateia*) had been bulldozed away so I was delighted to re-find a few plants hanging on, in its only extant Fife site. Almost side by side with it was Wild Liquorice (*Astragalus glycyphyllos*), but one only - thus I was glad to locate many flourishing plants at the old docks at Burntisland, where I had last seen it in the 1960s. Two new plants to the District were Wood Speedwell (*Veronica montana*) and Meadow Fescue (*Festuca pratensis*). In the case of the latter I'm not sure whether it is one that I've overlooked (there are several plants to which I seem to be "blind") or whether it is indeed quite uncommon in Fife. On a trip a little further afield than my first haunts, to the grounds of a former "big hoose", I espied two introductions new to the VC: Creeping Comfrey (*Symphytum grandiflorum*) living up to its common name with a good patch, in contrast to the single plant of what can only be Large-leaved Avens (*Geum macrophyllum*). There also, Broad-leaved Meadow-grass (*Poa chaixii*) was virtually dominant over a bank and thinking that another ornamental plant often associated with it might be nearby it did not take long to locate White Woodrush (*Luzula luzuloides*).

Where casuals occupied me in those early days it now tends to be some of the critical groups, especially brambles. I collected my first four specimens in 1962 but could make nothing of them. When ultimately I had them determined, predictably number one proved to be *Rubus latifolius*, a widespread and common Scottish species. Little did I realise then that *Rubus* would become a particular passion and that in later life I would spend a not inconsiderable number of days each summer/early autumn touring Scotland

in search of them (the ultimate aim being to produce an atlas of Scottish brambles). As yet, I have two or three known species to see, while I still find a few (four again in 1995) of which I can make little. The difference now is that they don't *have* names, the bane of the botanologist. Their relations the roses, are not all they seem to be either. In the "old days" I confidently put a name to most that I came across, now I have to gather galore before assigning identities.

But roses are among my favourite wild flowers and they seemed to enjoy last summer's heatwave, as I did. Once the last hips had been collected and my fortieth season completed it was quite a thought to start and put the myriad records of all these years on to my new computer. But - *Atlas 2000* beckons and begin I had to. I just hope that there will be enough time left in the future to go out into the field again!

## Journals for Disposal

The following journals are available from Dr Richard Pankhurst who may be contacted either at home or at the Royal Botanic Garden, Edinburgh EH3 5LR.

*Watsonia* - August 1974-1994

*BSBI News* - 18-66

*BSBI Abstracts* - Parts 8-23 (1978-94)

*BSBI Scottish Newsletter* - 3-5

*BSE Transactions* - Vol XXXII parts 1,2 & 4 (1936, 1937 & 1939)

Vol 41 (1972) - Vol 44 (1982)

*BSE NEWS* - 5-35 (No 9 missing)

*British Pteridological Society* - 1972-75

*British Fern Gazette* - 1972-75

*Glasgow Naturalist* - Vol 18 parts 8 & 10 (1966 & 71) Vol 19 parts 1-5 (1973-78)

*Western Naturalist* - Vol 1-7 (1972-78)

*Scottish Field Studies Ltd* - 1979-1983

## *Anisantha* Records in Lanarkshire

P MACPHERSON

This article is concerned with the occurrence in VC 77 of bromes which have been assigned to the genus *Anisantha*.

*Anisantha diandra* (Great Brome). There is a 1920 record of "*Bromus rigens* = *B. maximus* = *B. villosus* from Maryburgh" (Grierson 1931) which possibly refers either to this taxon or to *A. rigida*. The first definite record is that of JH Dickson from a pavement at Cadder in 1989 (GL). There were five plants originally and many more, when last checked in the early nineties. For a number of years from 1989 plants grew at the foot of a wall at Meadowside, Glasgow (Herb PM).

*A. madritensis*. The first and second records are those of R Grierson, from Brackenhirst 1920 and Maryburgh 1922. In addition there is a specimen collected by T Wise (GL) labelled "Glasgow 1923". As most of Glasgow is within VC 77 it is likely that the plant was collected in that vice-county. There are no modern records.

*A. sterilis*. The Rev David Ure (1793) recorded this plant from a hedge between Rutherglen and Farme. The *Atlas of the British Flora* gives three x10km sq records which are clearly within VC 77 and a further three on the boundary zones with other vice-counties (Perring and Walters 1962). In recent years I have made 10 x 1km sq records and been informed of one other in the Glasgow area of Lanarkshire. In addition one further record has been made in the central part of the vice-county (26/8.4 south east quadrant).

*A. tectorum*. This plant was reported as casual from both the Ryding and Monkland sidings in 1926 by R Grierson and as var *glabratus* from a Glasgow coup in 1927. The varietal name is surprising as Hubbard (1968) gives *A. tectorum* var *hirtus*. This suggests that the usual plant is glabrous! No varieties are described by Stace (1991). I would appreciate receiving information on the status of the varieties.

### Acknowledgement

I am grateful to Mr DH Kent for advice on nomenclature.

### References

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Ure, D (1793). *The History of Rutherglen and East-Kilbride*.

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## Scottish Rare Plants Project Update

P LUSBY

### *Lychnis viscaria* (Sticky Catchfly) on Arthur's Seat

Twelve of the 15 plants that survived, from the original 20 translocations produced flowering stems in June 1995. The severe drought later killed all the top growth but the plants re-sprouted in the autumn and seedlings germinated around two of the plants. It is not yet known whether the seedlings survived the winter.

### Dawyck Rare Plant Trail

All plants are in position at Dawyck but establishment is more difficult than at Edinburgh mainly because of competition from other plants. A tour of the Trail will take place on July 3rd (2pm) in connection with a general wildflower walk. BSBI have generously contributed to this trail.

### SNH Contract

Field survey work was carried out for the 19 Red Data Book species as part of an SNH contract to produce Species Action Plans for these plants. Much of this work was carried out by Gordon Rothero with inputs from Alan Silverside, Vivian Halcrow, Richard Pankhurst, Richard Gulliver and Pat Batty. Particularly interesting for me was a trip to Rhum with Alan Silverside to look for *Euphrasia rhumica*, *E. eurycarpa*, and *E. heslop-harrisonii*. *E. heslop-harrisonii* was located and plants of *E. rhumica* (strictly var. *fionchrensis*) have recently been confirmed by Alan. *E. eurycarpa* was not found.

I thank all contractors for their hard work and various recorders and local SNH staff for help and assistance.

(Scottish Rare Plant Project Officer RBGE)

### Personalia

On 22nd July 1995, Richard Gulliver the Recorder for VC 102 was interviewed on Radio Scotland's countryside programme "Out of Doors". He spoke about the *Atlas 2000* project.

In the Ministry of Defence wildlife and conservation journal *Sanctuary*, No 24, 1995, Olga Stewart had two of her flower studies featured in an article on the MOD Dundrennan Range, Kirkcudbright. The flowers depicted were

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*Lathyrus sylvestris* (Narrow-leaved Everlasting-pea) and *Primula veris* (Cowslip).

On 12th April 1996, the BBC1 Scotland television series 'Operation Survival' featured two Scottish members. Elaine Bullard was shown at her home in Orkney, seated at her computer and talking of the role of amateur botanists in local flora recording and also of her particular interest in *Primula scotica* (Scottish Primrose). Visible on her desk were copies of the *Scottish Newsletter!* Mike Scott was featured demonstrating mountain vegetation to an interested group of visitors near the Cairngorm ski slopes.

Mike Scott has also been prominent on the media in connection with objections to the proposed Cairngorm funicular railway.

## Red Data Book Plants in Scotland BSBI Contract Update

KEITH WATSON

Throughout 1995 members of the BSBI contributed to a survey and monitoring scheme initiated by Scottish Natural Heritage (SNH) [see *BSBI Scottish Newsletter* No 17].

Firstly I thank all those members (and a few non-members!) who responded to my requests for information and particularly those who actively re-visited many of the sites and reported back on the current status of some of Scotland's rarest plants.

### Survey Responses

The 19 species under investigation comprise a total of 218 existing records, distributed over a wide range of Scottish localities. Of these 55 records were covered by other survey initiatives and a further 33 locations were not visited during the survey. However, responses of varying types were received for the remaining 130 records.

Species were not re-found at 37 previously recorded sites, including possible errors (identification or GR) or representing lack of time during visits to isolated mountain regions or sites with vague location details.

Positive feedback was received for the remaining records and this included good grid references and map locations and many included valuable sketch maps, location photographs and population counts. In addition there were

some 20 responses from new sites (or ones that have so far failed to appear on the SNH Database). This data will be invaluable for the assessment of conservation priorities and greatly facilitate future monitoring programmes.

### Results

The survey returns (supported by other recent survey work) provide good general distribution data for several species including *Elatine hydropiper* (Eight-stemmed Waterwort), *Rumex aquaticus* (Scottish Dock), *Koenigia islandica* (Iceland-purslane), *Carex atrofusca* (Scorched Alpine-sedge), *Potamogeton rutilus* (Shetland Pondweed) and *P. epihydrus* (American Pondweed). Other species are well covered locally such as those occurring in the NNRs (Ben Lawers and Caenlochan), but also others such as *Carex recta* (Estuarine Sedge VC 106/7), *Saxifraga cernua* (Drooping Saxifrage, Bidean Nam Bian VC 89) and *Astragalus alpinus* (Alpine Milk-vetch) and *Oxytropis campestris* (Yellow Oxytropis) in VC 89.

There have been detailed returns for some species in certain localities but unfortunately these were often accompanied by failures - eg records from Aonach Beag/Mor and Ben Alder (VC 97), Cairn Toul and Lochnagar (VC 92), Coire an Lochain (VC 96) and Ben Eighe (VC 105). Localities that received inadequate or even no coverage in 1994/95 survey period include Creag Mhor (VC 88), much of VC 90 outside Caenlochan NNR, Creag an Dail Bheag (VC 92), Ben Nevis (VC 97), Ben Alder (VC 97), An Teallach (VC 105) and Shetland (VC 112).

There have also been no records of *Agrostemma githago* (Corncockle) as a 'wild' plant and feedback on *Atriplex longipes* (Long-stalked Orache) has been from the known localities (in VC 73). *Juncus nodulosus* (Marshall's Rush) remains a taxonomic problem despite the thorough search of the main site last year.

New records/sites include those for *Elatine hydropiper* (VC 86, 87 and 99), *Carex atrofusca* (VC 88), *Koenigia islandica* (VC 104), *Potamogeton rutilus* (VC 106), *Carex lachenalii* (Hare's-foot Sedge) (VC 94, 97) and *Poa flexuosa* (Wavy Meadow-grass) (VC 94, 97).

### Further Work

The involvement of the BSBI membership is invaluable in surveys of this kind, given the wide geographical distribution of sites. Although the actual BSBI survey and other associated surveys are over, there remain gaps for several species or sites and many recently visited sites could still benefit from

further searches and monitoring. It is hoped that the continuing survey work by members for *Atlas 2000* will continue to provide valuable information on Scotland's rarest plants.

### Scottish Field Meetings 1996

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

July 6-8	Portpatrick (VC 74)	AJ Silverside
July 14-16	Dingwall (VC 106)	PCH Wortham
July 20-21	Grantown (VC 95)	J Edelsten
July 27th	Forth (VC 77)	P Macpherson
August 10-17	Kindrogan Field Centre	"Critical Groups" Tutor - AJ Silverside

### Atlas 2000 Meetings Arranged

June 22-29	Mull (VC 103)
July 22-28	South Aberdeen (VC 92)
July 29-30	Wester Ross (VC 105)
August 1-2	Dumfries (VC 72)

Bookings to T Dines, Curig, 91 Farrar Road, Bangor, Gwynedd LL57 2DU

### BSBI Committee for Scotland

The following is the composition of the committee from Nov 1995-Nov 1996:-  
Chairman - Dr P Macpherson: Secretary/Treasurer - Dr MF Watson: Field Meetings Secretary - GP Rothero: Minutes Secretary - Mrs BG Hogarth: Meetings Secretary - Dr MF Watson: Members of Committee -JR Edelsten, P Lusby, Dr JR Pankhurst, Mrs OM Stewart, K Watson.  
Representing SNH - Dr RAH Smith (Vice-chairman)

At the AGM on 3rd November 1996 Mrs Hogarth, P Lusby and Mrs Stewart will be retiring. Mrs Hogarth and Mrs Stewart are eligible for re-election.

Nominations for the three vacancies, signed by two members of the Society normally resident in Scotland, or who are recorders for a vice-county in Scotland, although not resident there, and with the written consent of the candidate, who must also qualify as above, should reach the undernoted at the Royal Botanic Garden Edinburgh EH3 5LR, by 30th September 1996.

MF Watson Honorary Secretary