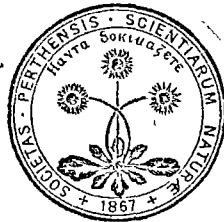


APRIL 1983

P.S.N.S.
BOTANICAL SECTION



Bulletin Number 7

EDITORIAL

Welcome once again to the Bulletin of the PSNS Botanical Section. I hope you will enjoy reading this issue, particularly as we have an article from a former Chairman describing his expedition and research in Kashmir.

The Botanical Section had a good year in 1982 with a particularly successful field season and an interesting programme of winter talks and demonstrations. The highlight of the year was undoubtedly the rediscovery, on a PSNS excursion to Strone of Cally, of the Whorled Solomon's Seal (*Polygonatum verticellatum*), and the later rediscovery of the plant in another site by three individual members of the Society. We hope to continue our good luck when we visit Nether Glenny in the coming season, in search of Herb Paris (*Paris quadrifolia*).

While on the subject of plant records, members will be pleased to hear that Perthshire once again has a full complement of three Vice-County Recorders since Nick Stewart, our Field Secretary, has been appointed BSBI Recorder for West Perth, VC 87.

Helen E Stace

NATURE CONSERVANCY COUNCIL NEWS

The work of the NCC has been revolutionised by the passage through Parliament of the Wildlife and Countryside Act (1981). We are now busy renotifying all our Sites of Special Scientific Interest (SSSI) under the new Act. When this is done owners and occupiers will have to consult us about land use changes, in addition to the District Council consulting us about planning applications. If we feel that the land use changes the owner or occupier is proposing are going to unacceptably damage the nature conservation interest of the Site, the owner or occupier is entitled to financial compensation for not changing the land use. Thus quite rightly owners and occupiers should not be disadvantaged through their fortune (or misfortune) to have an SSSI on their land.

In Perth and Kinross District there are 58 existing SSSIs and 40 proposed new ones. Most of the new ones are small areas of unimproved pasture and woodland. I have now visited the owners and occupiers of most of these Sites and explained the new legislation

to (em and have been very gratified with the almost universal favourable reaction. Hopefully by the time you get this Bulletin, letters will have gone out to owners and occupiers of the first 67 Sites, the remaining 31 will go in late summer when I have completed all the owner visits. So if any section member knows of anywhere they think might be of SSSI status (eg a bit of unimproved grassland with orchids, a gorge woodland with rare plants, a peat bog) please let me know as soon as possible so that I can go and have a look at it.

Rosalind A H Smith
Assistant, Regional Officer
Perth and Kinross District

OBITUARY - MISS A P BOYD

A native of the Blairgowrie area, Miss Boyd retired from teaching and set up her home in Perth. After her retirement she maintained an active interest in natural history and particularly in botany.

Miss Boyd attended meetings of the PSNS, indoors and outdoors, for as long as she was physically able, and won the admiration of many younger members.

Following a long illness, Miss Boyd passed away on August 1st 1982.

Freddie French

NEW PHONE NUMBER

Please note that Mr and Mrs W F French have a new telephone number : Coupar Angus 782.

HOPS

In a previous issue of this bulletin I reported the occurrence of a thriving colony of Hops (*Humulus lupulus*) at Balgershø near Coupar Angus. I now report the occurrence of two further plants of this species near Alyth (NGR 37/244473 and 37/246 474).

All the plants seen are female (the male flowers, which grow on a separate plant are absent) and in the case now recorded the two sites are near the Blackbird Inn. Could it be that these are

escapes from cultivation and have been grown by the local pub or for 'Home Brewing' ?

It is likely that in all three places the actual plant is quite old and as all are at the roadside, have been cut with the roadside herbage many times.

Freddie French

Hops are very scarce in Scotland and are quoted in Clapham as 'a valuable constituent of the best beers doubtless often an escape from cultivation, probably always so in Scotland'. There are at least five other localities for Hops in Perthshire, near Kinloch Rannoch, Kenmore and Dunkeld and at Callander and Culross, but in the latter two at least the most recent records are for 1956 and 1957. It would be interesting to hear from any other members who have seen Hops, particularly if male plants are found. Ed.

THE FORESTS OF KASHMIR - News from Mike Burns a former Chairman of the PSNS Botanical Section

I have just returned from the mountains of Kashmir where I have been studying the Ecology of the Western Himalayan Fir (*Abies pindrow*). This project is for my M.Phil thesis at Exeter University and was partly financed by the Royal Geographical Society and the British Ecological Society.

When I set off I knew that I wanted to study the way in which the tree reproduced and maintained its population naturally. How I was to tackle the problem I could not decide, until I had actually arrived and seen the vegetation. In April the snow was still covering the mountains, avalanches swept through the upper parts of the forests and it froze hard every night. I selected a site area for detailed study at Kullan, 35 miles North East of Srinagar. Like so many of the aspects of my trip I was blessed with good luck and this site turned out to be as natural and unspoiled as anywhere around the Kashmir valley. However, the destructive influence of grazing and felling is all too evident everywhere.

The fir trees range from 2,450m (8,000 ft) to 3,650m (12,000 ft). In the forest I dealt with seven 50m x 50m areas and mapped each in detail. From these areas I recorded the vegetation, both qualitatively and quantitatively; the height and circumference of

adult trees; the distribution and abundance of young trees and seedlings and details of snow throw. My methods evolved with experience and I was very relieved when they began to generate a coherent pattern. I was also most relieved to be able to find suitable paths through the forest as the snow receded.

Several strokes of good fortune helped me on with my project. The Botany Department of Kashmir University were not only most encouraging but identified all my higher plants for me. The mountain people, who could not speak English, soon became accustomed to me and neither pestered nor stole from me. I managed to avoid serious illness and never had trouble with the black bears.

There were of course problems. As the season advanced the streams which I needed for drinking water dried up. Consequently I had to carry water quite long distances and when you are carrying your equipment and food for over a week this extra weight was rather demanding. Eventually I gave up any tent altogether so that I could carry the necessary water and slept in a plastic survival bag when it rained. The other problem was simply being alone for such long spells. I found my own company rather tedious after a while and the only solution was to work harder and to reduce leisure time to an absolute minimum.

The Himalayan flora was less varied than I had anticipated which made my research less complicated. Within my research sites were some lovely plants which have been introduced here including: *Spiraea canescens*, *Corydalis Kashmeriana*, *Primula denticulata*, *Primula rosea*, *Podophyllum emodi*, *Rhododendron campanulatum*, *Bergenia himalica*, *Mecanopsis aculeata* and *Aconitum aeve*. Quite a large number of British species occupied the Fir forest; *Actaea spicata* Baneberry, *Adoxa moschatellina* Townhall Clock, *Cardamine hirsuta* Hairy Bittercress, *Caltha palustris* Marsh Marigold, *Geum rivale* Water Avens, *Fragaria vesca* Wild Strawberry, *Trifolium repens* White Clover, *Stellaria media* Chickweed, and *Rumex acetosa* Sorrel. The alpine zone above the evergreen woods was superb botanically but pride of place in my eyes went to *Paraquilegia anemonoides* which I only found once high in the rock cliffs of the Yam Har pass.

I managed to collect the data I needed to construct a fascinating picture of the forest vegetation. It was a challenging project and as a result of it, I have been invited back by the Governor of

Ladakh to study Juniper trees so I may well be in the Himalaya next summer.

Mike Burns

EXCURSION REPORTS 1982
STRONE OF CALLY

6 June 1982

The first meeting of the year on Sunday 6 June was attended by eight members and although the day was overcast, no rain fell. The highlight of the day was the finding of the Whorled Solomon's Seal (*Polygonatum verticellatum*), in the upper part of the area explored.

Other interesting plants seen included two species of Melick (*Melica nutans*) and (*M. uniflora*) Hairy rock cress, (*Arabis hirsuta*), Northern Marsh and Heath Spotted Orchids (*Dactylorhiza purpurella*) and (*D. ericetorum*) Wood Fescue (*Festuca altissima*) and a wide range of sedges.

It was interesting to note the overlap of upland meadow and woodland on the top of the ravine, and a similar overlap of woodland and riverbank flora at the foot of the ravine. Investigation of the latter had to be halted when the gorge became too precipitous and the river was reached again by a descent to riverside pasture. The party then continued along the riverside path to a bridge over the Black Water. One plant of interest on this stretch of river was *Rubus spectabilis*, an introduced plant (similar to the raspberry) present in fair quantity.

After crossing the river the party returned to Strone of Cally via the drive of Ashmore House and several members accepted the kind hospitality of Mrs Smart who provided us with tea and biscuits.

Ann Mathers

N.B. I am pleased to report that subsequent to this excursion, three of our members, Nick Stewart, Ros Smith and Helen Stace rediscovered Whorled Solomon's Seal in another of its other old haunts. Here it was present in some abundance, some plants reaching three feet in height and many fruiting. Ed.

PITRODDIE DEN

13 June 1982

A total of 21 members and friends of the BSBI and Perthshire Society of Natural Science attended the above joint excursion. The main aim was to explore a little known area of the Sidlaw Hills in the hope of finding new plant records and confirming some old ones.

Pitroddie Den comprises mainly South-facing slopes above a river valley together with a rock face and spoil from a long disused quarry. It is extensively colonised by scrub, except for the uppermost grazed section. This may explain the failure to refind some old records but nevertheless we were pleased to refind both Wild Liquorice (*Astragalus glycyphyllos*) and Greater Prickly Lettuce (*Lactuca virosa*). Southfacing calcareous substrate supported such local rarities as Agrimony (*Agrimonia eupatoria*), Welled Thistle (*Carus acanthoides*), Cowslip (*Primula veris*), Weld (*Reseda luteola*), Field Madder (*Sherardia arvensis*) and Hairy Violet (*Viola hirta*). Apart from the plants, enjoyment of the visit was increased by the many butterflies on the wing.

We are grateful to Mrs M A Steele, Nether Durdie for access permission and in particular for the splendid gate which was specially erected to permit us access to the upper Den.

Ros Smith

LOCH KATRINE EXCURSION

20 June 1982

Sixteen members of the Society attended this excursion and the sail up Loch Katrine as far as Stronachlachar and back proved interesting and enjoyable. The weather was foggy, but not enough to spoil the views. The scenery was marvellous, from bare rugged tops to low level woods of oak and birch. However the area appears to be of little botanical interest - probably on account of the acid rock surrounding the loch.

The Commentary, from the bridge of the Sir Walter Scott, provided details of the ship and of the surrounding scenery, especially the little wooded islands, each with its own history.

This trip followed last years trip down Loch Lomond on 'Maid of the Loch' and the feeling was that Loch Katrine was like Loch Lomond in miniature. It was a truly delightful trip and was enjoyed by all.

Freddie French

N.B. - for those who have enjoyed either of these two trips, or who have regretted missing them, a further boat trip has been arranged this year on the Tay Queen, sailing from Perth to Dundee. See the excursion sheet for further details. Ed.

TAYSIDE SHINGLE BEDS

3 July 1982

This meeting was a joint excursion of the PSNS and the Edinburgh Natural History Society - PSNS being rather outnumbered by members of the latter who arrived in a coach !

The day was fine on the whole, with only one or two very scattered showers. The three main areas of river bank visited were shingle areas liable to be inundated by water, grassy areas in old river channels with little exposed shingle and colonised by Willow, Bird Cherry and Broom Scrub, and wooded areas, (this range of habitats from the pioneering phase to the woodland stage, account for the variety and interest of the shingle bed species).

A number of interesting species were seen, the plants of most interest perhaps, were the Maiden Pink (*Dianthus deltoides*), Pepperwort and Smith's Cress (*Lepidium campestre* and *L. Smithii*), and Shepherd's Cress (*Teesdalia nudicaulis*) - they are such good 'exploiters' of the shingle, though liable to be outgrown by other species if the shingle remains exposed for any length of time.

Ann Mathers

BENVANE

11 July 1982

This meeting was attended by about ten members and friends. Having parked the cars some distance up Glen Finglas Reservoir the party proceeded along the track above Glen Finglas and along Gleann nam Meann to the stream descending Southwestwards from Benvane. This was then followed to the crags halfway up the west side of the hill. The party then contoured southwards along the slopes of Benvane and Creag na h-Airigh and returned to the cars.

The purpose of the visit was to investigate a report of some limestone on these slopes. This was not found, however there was a continuous band of epidiorite running along the slopes at a height of about 450m. though this rock is fairly hard and thus has a mainly acid flora, there are a large number of base-rich flushes and streams running down the slopes below the outcrops. These contained a number of interesting species such as Alpine Ladies Mantle (*Alchemilla alpina*), Few-Flowered Spike-Rush (*Eleocharis quinqueflora*), Broad-leaved Cotton Grass (*Eriophorum latifolium*), Three flowered rush (*Juncus triglumis*), Alpine Distort (*Polygonum viviparum*), Yellow Marsh Saxifrage (*Saxifraga aizoides*), Lesser Clubmoss (*Selaginella selaginoides*) and a variety of interesting sedges.

One member ascended the summit of Benvane and discovered an area of limestone on the east side. Among the more notable plants here were Roseroot (*Sedum rosea*), Bog Whortleberry (*Vaccinium uliginosum*) Downy Willow (*Salix lapponum*) and Mossy Saxifrage (*Saxifraga hypnoides*).

Nick Stewart

STOMACH FUNGI

This year the British Mycological Society is launching the first of a series of mapping schemes designed to improve our knowledge of the distribution of fungi. The group of fungi chosen for this pilot scheme are the Gasteromycetes or Stomach Fungi.

The Stomach Fungi include puffballs, earthballs, earthstars, stink-horns and birds nest fungi. There are also a few underground species which resemble truffles or shrivelled potatoes. These fungi are grouped together because the spores mature inside the fruiting body of the fungus rather than on gills or in pores. Thus in puffballs mature spores are released through a hole in the top of the fruiting body and in Stinkhorns the spores form inside the 'egg' and emerge on the head of the Stinkhorn only when mature.

The Stomach fungi were chosen for this scheme because there are only a few species in Britain and most are readily recognisable, especially with the aid of any of the good field guides now available. Also most of these fungi, except the Stinkhorns, dry

dry readily and persist for some time after maturing. This means they can be found and collected at most times of year and the identifications can be checked from the actual specimens.

So, next time you see a puffball or earthstar why not pick up a specimen and send it, together with notes on where and when it was found and what it was growing on/with, to Helen Stace (Blaeberry Toll, Muckhart Road, Dunning) or direct to Dr Roy Watling (Royal Botanic Garden, Inverleith Row, Edinburgh). We would be pleased to receive any records and specimens, especially of the underground species which are normally only found by people digging in their gardens.

Helen Stace

to BANCHMAR

Polygonatum verticillatum
Whorled Solomon's seal

Ashmore

Festuca
Wood fescue

NETHERTON

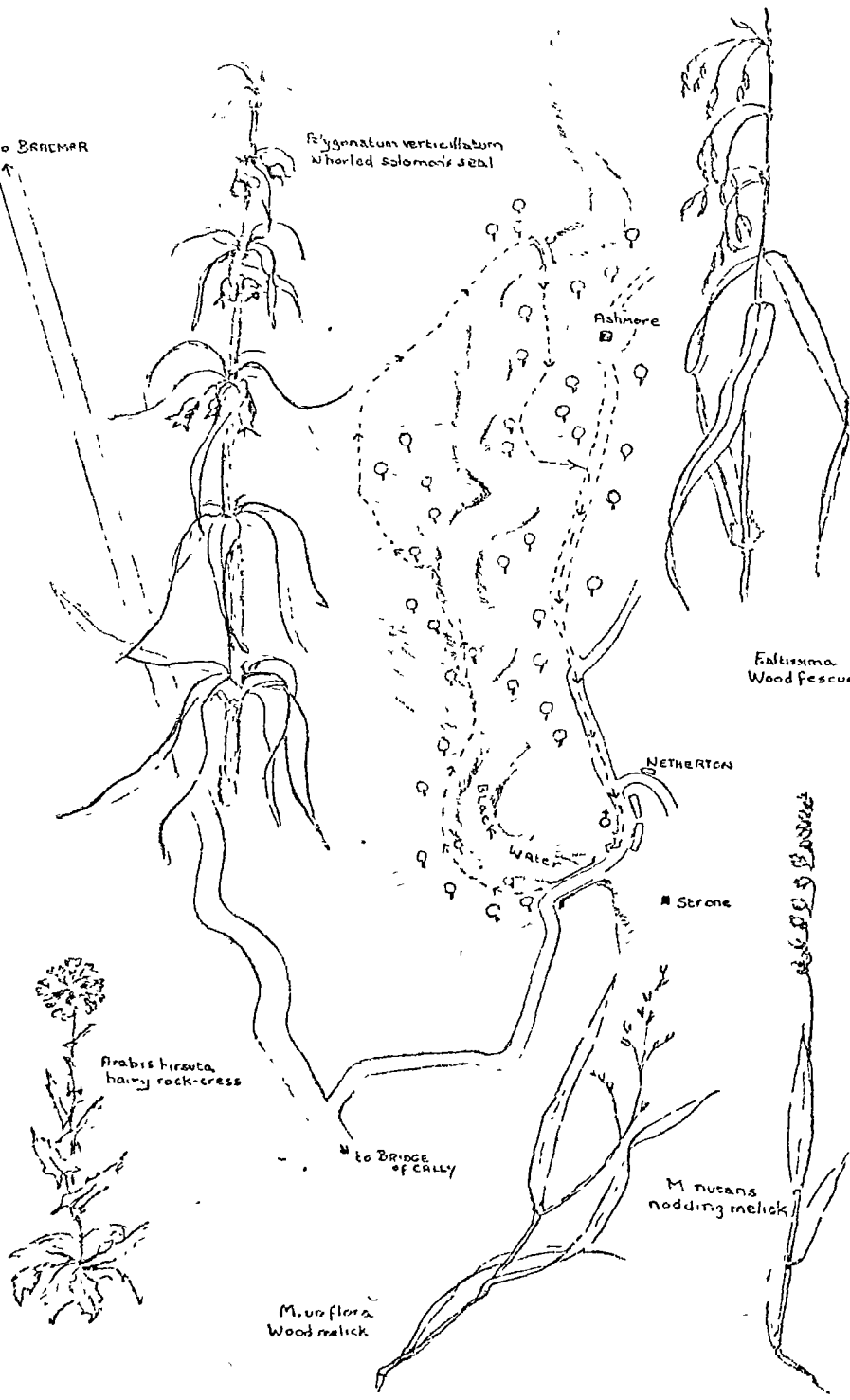
Strone

Arabis hirsuta
hairy rock-cress

to BRIDGE
of CULLY

M. uniflora
Wood melick

M. nutans
nodding melick



Produced by Perth Museum & Art Gallery