

# PERTSHIRE SOCIETY OF NATURAL SCIENCE

## BOTANICAL SECTION

BULLETIN No. 26 - 2003

### Editorial

Meteorological records clearly show that most of the world has warmed very significantly over the last 50 years. Most people accept that this warming is more than another upswing in the natural cycle of climate fluctuations which have occurred over centuries past; rather it is predominantly due to human activity, in particular the increased emission of greenhouse gases of which carbon dioxide, the product of burning fossil fuels, is the chief culprit. The seal of political agreement with this explanation was set at the Kyoto conference (1997) at which most countries in the Western world (but not the USA) pledged themselves to reduce carbon dioxide emission and boost energy from renewable sources over the next score of years. The UK's contribution was an agreement to generate 10% of its electricity as green electricity by the year 2010. With nuclear generation now in political disfavour in the UK (though not so in France), this appears to mean that wind, wave and tidal power need to be developed alongside well-established hydroelectricity (it has to be said here that many energy experts are deeply sceptical, indeed dismissive, that this renewables goal can ever be achieved economically).

Wind power is now being pushed hard. The recent edition of Geogscot reported an energy spokesperson saying that Scotland possesses 25% of the potential for wind power in the EU. Here the UK Government and Scottish Executive are encouraging and assisting planning applications for windfarms on a huge commercial scale. Windfarms comprise not only the huge windmill-like turbines but also the control buildings and switchgear, together with the long-distance cables and huge pylons. To maximise cheap power generation these windfarms will tend to be sited in areas of low population density, low value alternative use for the ground surface area and open aspect - yes, that's right, either the sea or upland Perthshire! Even lowland Perthshire will not be ruled out.

What led to this editorial are the increasing requests by agents on behalf of the windfarm proposers being directed to the botanical vice-county recorders - and no doubt to analogous recorders of other wildlife, geology, archaeology etc - for records of 'interesting' plants in prospective areas, so that Environmental Impact Assessments (EIAs) can be carried out as statutorily required under planning legislation. So far my responses have usually been nil, for obvious reasons interesting plants tend not to grow in the open wind-swept upland habitats most suited to windfarms (or botanists haven't collected data there!). Of course a hypothetical application for the Cairnwell summit, for example, would certainly generate strong botanical objections.

One can in theory arrive at an objective definition of an interesting plant and, with adequate data, at least protect its localities if the development proceeds (as was done with sking at the Cairnwell). But how does one assess the impact of a specific

development of this sort on the attractiveness of the landscape and on the number of tourists etc ? Several highly-visible long ridges south of Perth are now prospective windfarm sites Do we wish these to happen? Perhaps there have to be zones where developments are encouraged and zones where they are discouraged Being a planner, whether working for the Local Authority or another body such as SNH, and trying to juggle with the strong political and other pressures cannot be easy.

I thank Neale Taylor for one or two comments on this editorial and Alistair Godfrey for providing me with the address of Perth & Kinross Council's website about this topic - Council/ Council Services/ Planning and Transportation/ Planning/Draft Wind Energy Policy - which those who feel, probably correctly, that the Editor is not impartial could usefully consult

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Freddy French has drawn to my attention the names of three people with connections to the Botanical Section who have recently died He has kindly provided some biographical details.

**David Brien** died early in 2003 He was the son of Robert Brien, one of the early members of the Section David's connection resulted from his role of chauffeur to his elderly father - having brought his father he stayed and became a regular listener at all the meetings before doing the return journeys

**Ian Watt** was one of the founder members of the Section but many years ago he moved to Wales, where he died in January 2003

**James Aitken** was a well-known Perth figure whose interest and knowledge of plant life led him to set up and run his own landscape gardening business. He also helped to establish the Botanical Section, and later became President of the PSNS for 16 years - few who knew him will forget his imposing presence, always immaculately kilted, as he introduced speakers and conducted PSNS business. He died on Nov 27<sup>th</sup>, and the PA of Dec 5<sup>th</sup> carried a full obituary. Some of the proceeds of Jim's legacy is to be spent on a memorial on Kinnoull Hill.

Richard Thomas (Editor)

## Reports from 2003 Field meetings:-

### 1. Earlsferry, Chapel Ness and Kincaig Point

Saturday May 24<sup>th</sup>

A lovely spring day greeted the party at Earlsferry. The grassland of Chapel Ness gave a colourful array of *Primula veris* (Cowslip), *Anthyllis vulneraria* (Kidney Vetch), *Astragalus danicus* (Purple Milk Vetch), *Lotus corniculatus* (Common Birdsfoot Trefoil) and *Armeria maritima* (Thrift). In a rocky enclave there was a luxuriant growth of *Smyrniolum olusatrum* (Alexanders), a yellow-flowered umbellifer that is mainly coastal in distribution. On the rocky shore there was *Ligusticum scoticum* (Scots Lovage), *Tripleurospermum maritimum* (Scentless Mayweed), *Cochlearia officinalis* (Scurvy Grass) and in one spot *Seriphidium maritimum* (= *Artemisia* Sea Wormwood) with close by a few plants of *Cochlearia danica* (Danish Scurvy Grass). On this occasion we saw neither of the annual Knotted and Rough Clovers (*Trifolium striatum* and *T. scabrum*) which occur on Chapel Ness.

On the way to Kincaig on some disturbed ground there were a few plants of *Diplotaxis tenuifolia* (Perennial Wall Rocket) which had not been previously recorded there. On the slopes of Kincaig there were fine stands of *Geranium sanguineum* (Bloody Cranesbill) and *Centaurea scabiosa* (Greater Knapweed) not yet fully out. Higher up the slope George Ballantyne found a large colony of a Bramble which proved to be the often misidentified *Rubus caesius* (Dewberry) at one of its most northerly sites. On the short sand there was *Cakile maritima* (Sea Rocket) and a luxuriant specimen of *Crambe maritima* (Sea Kale). Further on there was a small specimen of *Glaucium flavum* (Yellow Horned Poppy). Exploration by Alistair Godfrey further along the cham walk found a great sweep of the Wormwood.

[A second visit later in the season found 4 specimens of the Yellow Horned Poppy at this spot - its most northern native locality.]

Bill Hay

### 2. Ochils - Craigleith & Myreton Hill [and Alva Glen]

Sunday June 8<sup>th</sup>

The aim of the excursion was to try to re-find locations for *Lychnis viscaria* (Sticky (or German) catchfly). This species probably has its UK stronghold in the Ochil Hills. A study by Peter Wallis, a University of Stirling undergraduate in the 1970's, had identified a good number of sites, several of which had apparently not been seen since. We were also armed with extracts from an SNH/Royal Botanic Garden report on the 'Alva Glen' location for the plant. The visit was timed to coincide with the catchfly's peak flowering period i.e. to make locating it as easy as possible!

Unfortunately the car park at the foot of Alva Glen was packed with fund raisers on a sponsored walk, but a healthy group of seven (including PSNS President Jeff Banks) managed to find each other and the path which led along the front of the hill to the Carnaughton Burn. At the Carnaughton Burn we immediately re-found one of the lost sites with a couple of clumps. Or thought we had, because something familiar about

the photograph of the 'Alva Glen' site suddenly struck me, and I realised it was one and the same site! Clearly the surveyors for SNH/RBG hadn't had a GPS

We moved on along the side of the hill, and soon found another healthy colony of the catchfly which was counted and photographed. This may be one of the Wallis sites. Further along there was an apparently more lime-rich rock type with a truly spectacular display of *Helianthemum nummularium* (Common Rockrose). We then clambered up to the main Craig Leith crags where there were patches of catchfly in places above the big crags, but masses of plants on the eastern end. The ground here was however quite difficult.

On the way back the rain set in, and it was a somewhat bedraggled group which returned to the car park. It was a shame that Alva Glen hadn't been reached – but I suppose in a sense it had – only it was really the Carnaughton Burn! The trip was very successful and it seems very likely that there are other sites for this species along the Ochils escarpment which have yet to be found or refound – early June is certainly a good time of year to try.

Neale Taylor

### **3. Fortingall (Allt Odhar Gleann Muilinn)**

**Saturday June 21<sup>st</sup>**

The day of the fences. The estate had put up new deer fences everywhere, in many places defying our efforts to cross. Three of us went up the east side of the gorge and in one angle of a fence came across a great drift of Heath Spotted and Northern Marsh Orchids *Dactylorhiza maculata* and *D. purpurella*. We lunched on a heathery and whin hillside high above the farm which gave an unusual view to Fearnan and Loch Tay. Crossing a side stream with difficulty we came across a series of flushes which were clearly basic. There were some *Gymnadenia conopsea* (Fragrant Orchid), a lot of *Carex hostiana* (Tawny Sedge) and one fine and colourful *Dactylorhiza incarnata* (Early Marsh Orchid) but most eye-catching was a great spread of *Eriophorum latifolium* (Broad-leaved Cottongrass) in an area split by yet another fence. There was quite a lot of *Euphrasia spp* (Eyebrights) in this flush but no one was volunteering an identification. At this point there was no way of getting into the deep and dangerous gorge but we did cross a little lower down to the west bank where nothing of note was seen. The fence had the last laugh however forcing us to heave through whins above a steep slope to the burn that was tight against it. Joanna did the hard work of trail-blazing.

Bill Hay

### **4. An evening walk on Kinnoull Hill, Perth**

**Wednesday June 25<sup>th</sup>**

The popularity of our evening walks proved itself when six of us turned up for our evening exploration. The day had been very warm and sunny and we were able to enjoy the cool of the evening. Kinnoull Hill is interesting for its wide range of habitats, from base-rich flushes to the baking-dry rocks of the summit, from grassland to woodland, scrub and heath. There can be few sites of this size that have such a wide range of habitats.

*Trientalis europaea* (Chickweed Wintergreen) grows in the mixed woodland to the east of the quarry. This plant lights up dull, shaded woodland floors with its starry show of white petals. *Pyrola minor* (Common Wintergreen) also grows in this area, but is found on the damper soils slightly lower down. Common Wintergreen's leaves persist through the winter, and that must be why the plant gets its name, but the solitary stems of Chickweed Wintergreen that bear the leaves and flowers are deciduous. The latter's flowers bear a passing resemblance to those of the genus *Stellaria* (Stitchworts/Chickweeds), but why "Wintergreen"?

One of the plants characterising the base-rich soils of the cliff tops is *Hypericum hirsutum* (Hairy St John's Wort), another, *Agrimonia eupatoria* (Agrimony), flowers later. With a little care, *Echium vulgare* (Viper's Bugloss), may be seen just below the cliff-top to the east of the Tower. I enticed Martin Robinson and Euan Cameron into this area to look at a plant I had seen a few days before, but could not identify. This turned out to be *Centaureum erythraea* (Common Centaury) and has not been recorded for East Perthshire for many years.

Alistair Godfrey

#### 5. Cortachy, Glen Moy

Sunday July 6<sup>th</sup>

#### 6. East Haven to look for Pyramidal orchid

Wednesday July 9<sup>th</sup>

Barbara Hogarth led both these trips very successfully. She passed me a floppy disk with the two reports in September, but unfortunately I have mislaid it in the chaos of an ongoing house move. My apologies to her and to you all. If I find it the reports will appear in a later edition. I can say that the East Haven visit was particularly successful, with several fully open plants of *Anacamptis pyramidalis* (Pyramidal orchid) and *Coeloglossum viride* (Frog orchid).

Ed

#### 7. An evening look at Brambles near the River Almond, Perth

Wednesday July 16<sup>th</sup>

George Ballantyne, the acknowledged expert on Scottish brambles, came over from Fife to conduct an evening session examining brambles along the banks of the rivers Almond and Tay. We hoped to examine a number of species from Buchanan White's *Flora*. In the event we found only 4 species: the very common *Rubus latifolius* and *R. radula*, together with *R. septentrionalis* and *R. pictorum*. We learned from George to look at important diagnostic features such as prickles and glands. He also demonstrated the considerable variability within species depending on such features as shade and dampness. Brambles are becoming more plentiful in this area of lowland Scotland and George has written an article in the latest number of BSS News.

## 8. Glen Lochay and Meall na Samhna

Saturday July 19<sup>th</sup>

a) This will be an expedition I will forget, if only because I, the leader, didn't make it. Having left Luncarty in good time, I passed through Pitcairn Green and thought I could smell burning rubber. The smell was coming from the front tyre of my car. The wheel had overheated due to the brake binding on the disc, witnessed by the clouds of steam that arose from my drinking water that I used to cool the wheel.

Our three members who reached Glen Lochay did not manage to meet up, although two were on the same hill for part of the day! I had gone out on 29<sup>th</sup> June and explored an area of Meall na Samhna. I had a brilliant day and saw lots of interesting plants and other wildlife. A list of some of the highlights follows -

<i>Antennaria dioica</i>	Mountain Everlasting	<i>Salix arbuscula</i>	Mountain Willow
<i>Arabis hirsuta</i>	Hairy Rock Cress	<i>Saussurea alpina</i>	Alpine Sawwort
<i>Armeria maritima</i>	Thrift	<i>Saxifraga azoides</i>	Yellow Saxifrage
<i>Asplenium viride</i>	Green Spleenwort	<i>S. hypnoides</i>	Mossy Saxifrage
<i>Bartsia alpina</i>	Alpine Bartsia	<i>S. nivalis</i>	Alpine Saxifrage
<i>Botrychium lunaria</i>	Moonwort	<i>S. oppositifolia</i>	Purple Saxifrage
<i>Carex capillaris</i>	Hair Sedge	<i>S. stellaris</i>	Starry Saxifrage
<i>Carex saxatilis</i>	Russet Sedge	<i>Sedum rosea</i>	Roseroot
<i>Cerastium alpinum</i>	Alpine Mouse Ear	<i>Sibbaldia procumbens</i>	Sibbaldia
<i>Cornus suecica</i>	Dwarf Cornel	<i>Silene acaulis</i>	Moss campion
<i>Draba incana</i>	Hoary Whitlowgrass	<i>Thalictrum alpinum</i>	Alpine Meadow Rue
<i>Galium boreale</i>	Northern Bedstraw	<i>Tofieldia pusilla</i>	Scottish Asphodel
<i>Juncus biglumis</i>	Two-flowered Rush		
<i>J. triglumis</i>	Three-flowered Rush		
<i>Oxyria digyna</i>	Mountain Sorrel		

Alistair Godfrey

b) This was to have been an excursion led by Alistair Godfrey to assist the BSBI with a Local Change monitoring visit in the tetrad NN43W, but (unbeknownst to me) car trouble en route put paid to that. I arrived early as I felt that the 11am start would mean that it would be well into the afternoon before the party would get to the crags, and having led a Monitoring Scheme visit (the precursor to Local Change) to the same tetrad in 1988 (accompanied by Bill Hay) I wanted to make sure that some of the more interesting species were definitely found.

Most botanists on Meall na Samhna go to the crags around the Innischoarach burn, but like most hills, there are many locations waiting to be discovered or re-discovered, since it is a fair bet that the Victorians will have got there first. (This was amply demonstrated later in the summer when *Erigeron borealis* (Alpine fleabane) was found on the mountain for the first time by an SNH botanical contractor.)

Armed with my shiny new GPS, I set off up the hill happily zapping grid references. It was actually very useful for knowing when I entered the tetrad. The upper Coire Dubhchraig is very rich with plenty of *Cerastium alpinum* (Alpine mouse-ear), *Bartsia alpina* (Alpine Bartsia) in places, and the odd *Saxifraga nivalis* (Alpine saxifrage). There is one patch of *Woodsia alpina* (Alpine Woodsia) which I think Bill

and I had first found (but which I have failed to find on two previous occasions since) I could not unfortunately refind *Draba norvegica* (Rock Whitlowgrass) which I have seen once in the Coire but did not have a GPS then!

Alarmingly, I failed to find the rest of the party on the top as expected and previously agreed with Alistair So I nervously edged down the Innischoarach gully, seeing more *Bartsia*, regenerating *Salix lanata* (Woolly willow) - a real holy of holies, *Salix reticulata* (Net-leaved willow) and an otherwise very rich flora I was even more alarmed when I didn't find any cars at the bottom, but at the foot of Glen Lochay the phone went and all was revealed This was certainly the first PSNS excursion where I was the only participant and wasn't even the leader!

Neale Taylor

[Your editor also arrived at the starting point at the advertised time but failed to see anyone else Although this is proving an interesting way of multiplying Bulletin material, he thinks two accounts will suffice!]

## 9. Killiecrankie – Tenandry

Sunday August 3<sup>rd</sup>

We were fortunate to have Martin Robinson as our leader, who knows this area extremely well, from the time when he was warden for the RSPB Our outing was very informal and we set out to enjoy the plant life for its own sake without doing any serious recording

We parked at the Garryside Bridge and followed the Tenandry Road to the kirk, where we followed an old track northwards One of our aims was to relocate an unusual plant Martin had seen before, *Monotropa hypopitys* (Yellow Bird's Nest). Our party was large and we thoroughly scoured the ground for it Brian Ballard was on hand to recount the habitat in which he had seen this species in Sweden, but despite the expert guidance and searching all was to no avail.

The plant may still be there, Martin only ever having recorded one Our timing might have been wrong, or the dry weather may not have suited flowering The only other known Perthshire location for this plant is Glen Tilt

We hit the Tenandry Road higher up and saw some interesting rose hybrids by the roadside – I find them interesting, anyway! By the roadside lower down, we had something of a consolation Yellow Bird's Nest is a saprophyte, it no longer takes its energy from the sun and has no need for green-colouring chlorophyll *Neottia nidus-avis* (Bird's Nest Orchid), has a similar habit, and we found this species at the close of our journey

Alistair Godfrey

## 10. Loch Maud and Mullinavadie

Sunday August 17<sup>th</sup>

Seven of us met by the road junction near Trinafour The weather was pleasant and sunny to start with, though got steadily duller and breezier as the day wore on At least the heavy rain forecast for the late afternoon held off

Loch Maud looked at a distance to be a rich site but its oligotrophic nature became evident on detailed examination - with lots of *Equisetum fluviatile* (Water Horsetail) and *Carex rostrata* (Bottle Sedge) dominant in the water and other acid species in the boggy ground on the west side. Our interest rapidly turned to the dragonflies, with some very colourful darters and hawkers active.

We took the opportunity to visit the very interesting Trinafour limestone which outcrops in many places to the west of L. Maud. White-flowered *Gentianella amarella* subsp. *septentrionalis* (Autumn Gentian) was frequent along with other species such as *Sagina nodosa* (Knotted Pearlwort), *Helianthemum nummularium* (Common Rockrose) and *Thymus polytrichus* (Wild Thyme). The sundew site had *Drosera rotundifolia* (Common Sundew) and *Drosera intermedia* (Oblong-leaved Sundew), but we saw no sign of *Drosera anglica* (Great Sundew) or hybrids, which a SWT report suggested might be present.

In the afternoon we split into four groups to repeat the survey of one of the squares near Mullinavadie for the Local Change scheme. This turned up nothing new of note. Clearly there is a heavy covering of boulder clay overlying what should be interesting Loch Tay limestone according to the solid geology map.

Richard Thomas

#### 11. Fungus foray on Craig a Barns

Sunday September 21<sup>st</sup>

This was enthusiastically and ably led by Keith Cohen from Dundee. After one of the driest and warmest summers of all time the fungi showed their disapproval by remaining underground. In fact we abandoned Craig a Barns in mid-afternoon and took ourselves to nearby Loch of Lowes, where the lochside marshy ground and much fallen timber still provided suitable habitats. I personally noted down 14 spp on Craig a Barns and 10 at Loch of Lowes - which was probably about the right number for a beginner like me to get to grips with! A very useful set of fungi books were displayed and discussed.

Richard Thomas

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Thanks to all those who provided Field Meeting reports