

Dundee Naturalists' Society

Instituted 1874



Bulletin No 24 1999
125th Anniversary Year

DUNDEE NATURALISTS' SOCIETY

ANNUAL BULLETIN No 24

1999

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The Bulletin cover illustration is by Leonore Goodliffe née Fullerton and shows a selection of our area's alpine plants, including the Society's emblem, the Dwarf Cornel. Other illustrations are by Anne Reid, Jim Cook, Bede Pounder, Christine Reid, Mary Reid and Artfile

EDITORIAL

Thanks to all members who have submitted articles and reports, it makes Bulletin production much easier, though there is always space for contributions from new authors. Thanks to Doug Palmer for his help and for typing some of the articles for me, and to Jim Cook, Colin Reid and Mary Reid for proof reading and helpful comments

Contributions for the next Bulletin, both articles and line drawings, are always welcome and may be submitted at any time during the year

Anne Reid

SOCIETY REPORTS

PRESIDENT'S REPORT

This session, the first of my Presidency, has passed with almost alarming speed. It included three very special events, the first being the celebration of our 125th anniversary by repeating the very early Nats excursion to Normans Law in Fife, preceded by a publicity 'photo-call' for the Courier, dressed in costumes of the late 1800s. We also repeated the centenary celebration dinner in the Woodlands Hotel, at which our honoured guest was the well known local writer, Jim Crumley. The second was of course the end (by some reckoning at least) of the millennium, which we decided to mark by means of a nature trail at the Balkello Community Woodland site with the aid of a £200 grant from the Angus Millennium Fund, and the expert knowledge of Gordon Maxwell. The third event followed on from the rejection of the planning application to build a hotel at the Magdalen Green site referred to by Margaret Duncan in her President's Report last year. We were surprised to learn that the developer had appealed against the decision, and because of the potentially serious implications should the Dundee Council's Planning Policies appertaining to Nature Conservation be set aside, we felt obliged to lodge an appeal and be prepared to defend the case against legal cross-examination at a full Public Planning Inquiry. I am delighted to report that our contribution helped in the rejection of the appeal.

I am also pleased to report that the Council's attempt to improve attendances at Saturday excursions by reducing their number to six per summer and replacing the loss by means of Tuesday evening outings was successful, with numbers attending on Tuesdays exceeding all expectations. The winter lecture series organised by the Council was again very successful and it was good to see that two of the formal lectures were given by our own members, and that others of our members were brave enough to 'take the limelight' during our Christmas event.

A committee was set up during the session to look into means of advertising ourselves more effectively and to a wider audience. As part of our efforts to gain publicity, we were once again involved in the Dundee Afternoon Lecture series, when Peter Ellis' talk on Mountain Life brought in £62 to the Society's funds. Another very successful publicity event was our contribution to the Dundee Flower Show which, for the second time, gained us a silver award.

Full details of all the activities referred to above and others are given elsewhere in this Bulletin, thanks to the diligence and drive of our editor and the literary skills of the contributors to whom I am very much indebted. I would also like to thank all the office bearers and other Council members for their wonderful support throughout the year. There is very little a President can do, especially one as green as I am, without such support.

Bede Pounder

CARSEGOWNIEMUIR REPORT

This has been a year of consolidation. We've planted only a few trees this year, a small number in spring and an even smaller number last autumn, a total of only fourteen. We have been busy mulching the trees, clearing willowherb, repairing shelters and reviving trees and, by no means least, re-labelling. Fortunately, many of the larger trees - and we now have a considerable number, I'm pleased to report - now require little maintenance. Most are more-or-less immune to rabbits, willowherb, drought and, I hope, wind damage. We therefore can spend our time on the smaller trees, which still need a little TLC in the harsh conditions of the quarry. At the time of writing, the tree measuring was still to be done (usually done over the Christmas holiday) but we are expecting to find that the damp and mild conditions of summer '99 gave a helping hand in promoting tree growth.

The highlights of the year were a visit by a dedicated group from the Dundee YOC group in June and an inspection by Dundee Tree Group in July. The YOC group got very wet but did clear some willowherb and checked guards (Article on page 34). Some of them returned on a drier day to complete their tasks, and also hunted for fossils (see page 34) and did some pond dipping (I had to make the net the night before! Ed). The July evening visit by the Tree Group coincided with a pleasant evening that was enjoyed by all, even Pfennig the lurcher. We'd made several previous visits to hack paths through the willowherb, which was just as well because it reached at least two

metres tall in places. The group was able to get around the whole quarry to inspect the trees and hear about individual features. We hope we passed the inspection with flying colours!

Eleanor Stafford, from the SWT survey group, also paid a visit during the summer to carry out a detailed habitat survey for the local biodiversity action plan. We look forward to receiving her report in the new year. Roll on the millennium and our thousandth living tree!

Jim Cook

TECHNICAL CONVENER'S REPORT

The last year has been a busy one, with time spent on a number of smaller projects and gearing up for the large one of a repeat of the lichen survey of the Dundee area. In the spring DNS organised a total of six botanical evenings, starting from the Allan Street carpark. These proved to be extremely successful, attracting a crowd of over 40 Nats for the Carnoustie coast visit. (A full report of these outings appears on page 30). We intend to repeat the botanical evenings next year, but to different venues. Watch this space!

Other activities included monitoring the **sea pea**, especially at its Elliot site, and taking a good look at the Arbroath Cliffs SWT Reserve. This coming summer the SWT local group is organising a detailed survey of the invertebrates of the Seaton Cliffs and Carlingheugh Reserve and we hope to be able to appoint a surveyor for at least two or three weeks of intensive work. There's lots going on!

Jim Cook

OBITUARIES

GORDON KIRKLAND

Gordon Kirkland, who died at the end of October, was a neighbour of mine, and he was always very pleasant, doffing his hat and acknowledging his neighbours. He had attended the Nats meetings with his late wife Muriel for many years, and contributed in a variety of ways to our activities. He was a Council member and could always be counted on for support. Latterly fishing and philately had been his pursuits.

Gordon was a private gentleman, quiet, and a family man. He will be much missed by those who knew and respected his quiet nature. Our condolences go to his son, daughter and grandchildren.

Margaret McLaren

ANNE URQUHART

It is an important part of the Bulletin to record not only the events in the Society which mark the passing of a year, but also the people. This record is a sad one, commemorating as it does the death of Dr Anne Urquhart, on 21st June 1999. Anne and her husband George joined the Society only a few years ago, and quickly became enthusiasts of the summer outings and the winter lectures. In her private life, as well as her professional life - as wife, mother, grandmother, friend and doctor - Anne cared for and cared about a great many people. She is missed by so many of us.

Those who knew her well remember how keenly she observed the changing seasons, and enjoyed what each one had to offer, both in this country and abroad. She was equally at home with polysyllabic Latin names and the all-embracing "dinna ken" family. Anne's love of nature, and especially plants, was expressed with great skill in her garden. Her favourite rose was Canary Bird (*Rosa xanthina*) with clear yellow flowers redolent of a sunny day. A fitting metaphor.

Shelagh Gardiner

WINTER MEETINGS 1999

BARRY MILL BARBECUE

2nd January

The weather was not very promising as we drew into the car park to find that plenty of other hardy Nats had also decided to brave the elements. Not that we had to be very brave - Peter had opened up the reception area for us so we had a warm dry retreat. After traditional New Year greetings and a cup of Roma's mulled wine we were all given Brian's quiz sheets and chivvied outdoors until the barbecue was ready for cooking. The search was on for named leaves, fruits and, hardest for many, grasses, in addition to information on the mill itself which had also been opened for us.



The rain rarely stopped but did vary in intensity quite often, so we kept hoping it would stop permanently. Meanwhile we all collected our damp handfuls of specimens and struggled to write on soggy paper. **Chaffinches** were probably the most frequently seen birds, but **treecreeper**, **grey wagtail**, female **bullfinch** and **moorhen** also put in an appearance. Those who ventured up to the irrigation pond above the lade were rewarded with distant **goldeneye** and **tufted ducks**. A clump of **snowdrops** beside the lade had a flower showing white, though not yet out.

The barbecue was strategically placed in the lee of the building so the cooking, or heating, of lunch was relatively easy. Brian and Jenny provided a second instalment of mulled wine which provided a welcome warmer with the food. There was venison soup on offer, from Mamie, and mince pies, cake and chocolates were also handed around to complement what we had brought. Brian was very trusting with the quiz marking scheme, but of those who added up their totals, Mary came out as winner. Does she realise that she may be expected to make up next year's entertainment? (Probably with my help!) At this stage in the proceedings Peter invited us all up to his cottage for coffee, mince pies and his own, home-baked, Christmas cake. This was an excellent way to round off our New Year celebrations and our heartfelt thanks must go to Peter Ellis for his hard work and hospitality which made the day so enjoyable for us all.

Anne Reid

SCOTLAND'S WEALTH OF WILDLIFE

Jim Cook 19th January

The attendance at the talk was in excess of sixty five and Jim started by pointing out that Scotland was blessed with a wide range of wildlife influenced by many different habitats spread over a relatively small area of land. As an instance he told us that Scotland's wildlife included 44,000 species of single-celled organisms which contributed to a total of 90,000 species overall. He then proceeded to give many examples of the flora and fauna and briefly described the nature of the habitats in which they occur.

A major influence on the landscape, and subsequently the flora, was the recent glaciation which ended about nine to ten thousand years ago. The regional topography of Scotland reflects the glaciation, for instance the many examples of 'U' shaped valleys and their associated glacial deposits. Pollen analyses of post-glacial sediments show that the main colonising vegetation, particularly in east Scotland, was **birch** scrub. The modern landscape has been much modified since the end of the glaciation and the survival of existing flora is largely determined by the current land use, such as **sheep** and **deer** grazing both of which adversely affect the survival of native species.

Of the many diverse habitats Jim selected a few to highlight the variety of flora and fauna characteristic to them. The **machair** is a unique habitat because of its layering of **peat** and wind-borne calcareous **shell sand**, producing a fragile but fascinating wildlife habitat. Others include mountain **corries** such as Corrie Fee, **sea shore** and **estuarine** habitats, and **wetland** areas, all of which have their characteristic plants.

Of the many bird species to be seen, Scotland has a good proportion of Europe's **golden eagles** and **corncrakes**, although the latter is in serious decline due to modern land management. Meanwhile attempts are ongoing to re-introduce the **white-tailed sea eagle** and, recently, **red kite** to Scotland

Jim mentioned and showed many examples of the flora and fauna from these habitats and the large audience showed enthusiastic appreciation after Bede Pounder gave the vote of thanks

Doug Palmer



Red kite

MEMBERS' NIGHT

2nd February

Over 40 people came to enjoy the wide variety of slides and exhibits so readily contributed by members. There were two and a half carousels worth of slides, and we were given a wonderful tour of the world expertly compered by Brian Allan. Slides were provided by

Jim Cook	Bavarian Alps. Thistles, alpine chough, mountains, castles and churches
Barbara Hogarth	Pyrenees. Mountain flowers, insects and scenery. Recording Angus flora for Atlas 2000.
Gordon Maxwell	'Out and about'. Birds and a black rabbit on the Isle of May. Short-eared owl, damselfly, plant galls, slime mould and butterflies from various local sites
Brian Allan	Geology of parts of western USA, including the Grand Canyon, the Arizona Desert by hot air balloon, Bryce Canyon and Death Valley. Then rafting on the Colorado River.
Dorothy Fyffe	Cyprus. Orchids, tulips, gladiolus and bird watching
Doreen Fraser	'Nats at Play'. Barbecue at Lunan Bay. Cyprus, with snow.
Les Tucker	Cyprus (a separate trip), Orchis punctulata. Pyramidal orchid in Italy and at Fife Ness and East Haven.
Alban Houghton	India. Snake charmers, camel carts and ceremonial elephants. The Taj Mahal, with bird life. Then reserves with deer, cranes, a kingfisher and a female tiger with cubs
Peter Ellis	Scottish mixture. Puffins on the Isle of May. Bird ringing at Barry Mill, including cream-coloured blue tit. Ring ouzels in Glen Esk and tawny owls at Crombie. Lake District golden eagles

Prints were brought, of Nats outings and wildlife, by Davie Stein and Margaret McLaren. There was a selection of shells from the Gambia and Cyprus collected by Dorothy Fyffe and some crinoid fossils from Davie. Peter Ellis contributed skulls of common and grey seals for comparison. The selection of exhibits seems to broaden every year - keep up the good work! Brian Allan was thanked for his organisation of the evening.

Anne Reid

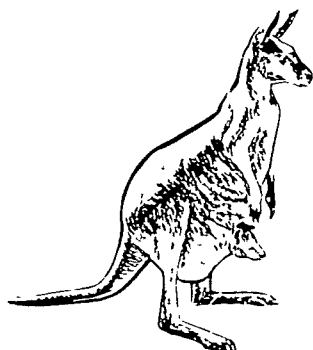
BIRDS OF AUSTRALIA

Eric McCabe 16th February

A very full house welcomed Eric McCabe, and as soon as AUSTRALIA appeared on the screen I felt a warm glow and, sure enough, we were in for a treat. Firstly we were reminded how large Australia is by superimposing it on a map of Europe where it stretched from the UK to Turkey, from Denmark to the toe of Italy.

We were then transported by plane from Perth to Darwin, looking down on unique desert scenery. The slide showing a vast golden brown area with meandering rivers snaking across it was most impressive. The termite hills, which may be ten or twelve feet high, are really bizarre. Slides

showing several varieties of **kites**, **heron** and **lapwing** reminded us of home. The local rubbish tip was also a place that attracted many species of birds.



Soon we were on our way to Queensland and cruising up the Daintree River. Sure enough a very large **crocodile** appeared on the screen; and in contrast the little **fairy wren** with its brilliant blue cap and tail. Now we were in the lush tropical region - the Kakadu - a wonderfully evocative aboriginal word. Two slides that I found memorable were the well-camouflaged **frilled lizard** lying along a branch, and the **black-necked stork**, dressed for any formal occasion. We were amazed at the bright colours of the **rosella** and **galah parrots** and the laughing **kookaburra**, and delighted by the adorable little faces of the **wombats** and **kangaroos**. Lastly we travelled to Tasmania where we were given a frightening glimpse of a black **Tasmanian devil** and breathtaking scenery.

The second part of the talk consisted of a slide show with taped commentary and music. The slides were mainly of spectacular scenery showing the beautiful landscapes and some very atmospheric forestry slides. The views and photography were of a very high standard and were a superb conclusion to an excellent talk.

All too soon the evening drew to a close and Helen Blackburn thanked Mr McCabe and his wife for a gem of a talk and for showing us his brilliant slides and video.

Margaret McLaren

SOCIAL EVENING

26th February

The penultimate item on the winter programme took the form of a social evening in the Monifieth Hotel. This has become a very important annual occasion when members are able to exercise their brains on a variety of subjects, competing for much sought-after trophies.

This year's quizzes were set by Bede, Doug and Jim and proved to be most enjoyable and entertaining. However, the knowledge prevailing in the groups, especially as far as music was concerned, showed up in the level of marks achieved. Consensus of opinion - "This musical quiz was for the birds!"

The shrieks and screams which greeted the introduction of the "touchy-feely" boxes indicated a popular item which provided much hilarity. At least Doug's multiple choice quiz gave us a 33.3% chance of success! In all, a most enjoyable evening, again voted a huge success, although the undersigned had to endure much embarrassment - despite a great deal of prompting and pointed clues, she failed to identify CASTLE FRASER!

Thanks are due to the quiz organisers and also to the hotel staff for excellent service.

Ina Fraser

DRAGONFLIES - MAINLY SCOTTISH

Mrs Betty Smith 2nd March

Betty opened her talk by drawing our attention to photographs and charts on the walls and a collection of books available for inspection after the talk.

She started by talking briefly about the history of dragonflies, showing a reproduction of a fossilised dragonfly trapped in shales about 140 million years ago, and a more recent report of a fossil of a dragonfly with a wingspan of 20" (50cm), recovered from 300 million year old Derbyshire coal beds. She then used her first slide to illustrate the main parts of a dragonfly, these being the head, consisting mainly of two huge eyes, a thorax bearing three pairs of legs and two pairs of wings,

and an abdomen, commonly cigar-shaped and with grasping pincers at the end which proved to be vital in the mating process

Some slides of damselflies followed. Unlike the dragonfly these have their wings folded when at rest. In both species the legs are used for catching prey, not for walking. Betty described the unique and complex mating procedure at some length. Depending on the species they may remain in the copulation position for a few seconds or up to several hours. The fertilised eggs are laid near a water surface, below or above, and the resulting larvae may mature in about two months but some species may take anything up to five years to mature if adverse weather conditions, such as drought, intervene.

We saw many beautiful slides of both dragonflies and damselflies and this was followed by slides showing population data. In Great Britain there are 40 or 41 species with Scotland having 21. World-wide there are in excess of 5000 species. In Scotland more species are recorded in the west than the east. This may be due to a greater area of wild and wet landscape in the west and the fact that waterways tend to be more polluted in the east.

We were then shown slides of all the Scottish dragonflies and their preferred habitats and Betty pointed out some distinguishing features, chief among them being a variety of bars and dashes on the sides of the thorax. She concluded the talk by telling us that an African species had been found in Caerlaverock Reserve in November.

Gordon Maxwell gave the vote of thanks for an excellent talk and most of the members clustered around the table to examine the specimens, books and photographs Betty had brought with her.

Doug Palmer

SATURDAY MORNING WALK THE ERICHT FROM BLAIRGOWRIE

6th March

A beautiful morning attracted over 40 keen naturalists for another of our now traditional winter walks.

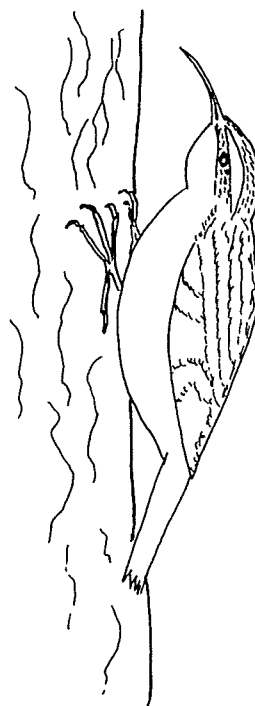
We met at the car park in Blairgowrie and no sooner had we started our walk when we had good views of a tiny **treecreeper**. This small, extremely well camouflaged bird was at first not easy to spot, and it was only when it moved, seeking out insects from the fissures in the bark with its small curved bill, that it was spotted. It moves up the trunk in short spurts with its stiff tail pressed hard to the tree.

A short while later we had good views of a pair of **dippers**. This quite large bird is blackish in colour with a brown-bordered, white breast. We watched enthralled as it perched on the rocks bobbing its head before plunging into the torrent to feed on the bottom of the river. It is truly a highly specialised bird, swimming and walking under the surface as it searches for food.

We eventually reached the old mill complex, which at one time harnessed the power of the Eicht, through numerous water wheels, to run the machinery in the huge mill buildings. On the walls of many of the buildings were many large plants of the scarce **hart's-tongue fern**, (*Phyllitis scolopendrium*), and although we were early in the season we also found a number of flowering spikes of **opposite-leaved golden-saxifrage**, (*Chrysosplenium oppositifolium*).

We then wandered back into Blairgowrie to partake of a superb lunch in a local hostelry.

Brian Allan



SUMMER OUTINGS 1999

DALKEITH BUTTERFLY FARM & ARTHUR'S SEAT

8th May

The weekend before our trip to Edinburgh was the hottest May weekend for many a long year so we were hopeful of a similar weekend for our first outing of the season. But

The morning dawned cloudy, cold and very, very wet. However 31 hardy souls boarded the coach happy in the knowledge that the first stop of the day was the warm coffee shop at the Kinross services. They were happy too that the second stop was still indoors, at Butterfly World at Dalkeith.

We had visited the Butterfly centre before, but it had been extended since our last visit. Once we were inside the heated building all thoughts of the weather outside were swept away. The **butterflies** were spectacular, and you could easily transport yourself to a hot steamy rain forest, so



realistic was the setting. There were waterfalls, pools full of huge **goldfish**, bubbling mud pools and thousands and thousands of brightly coloured butterflies. There were **birds** too flying among the many flowering trees and shrubs. These included a pair of small **quail**-like birds and, to our surprise, a delightful **hummingbird**, happily feeding on the fruit put out, on trays, for some of the fruit loving butterflies.

Behind the main butterfly area was an area set aside for what I would describe simply as '**creepy crawlies**'. A vast array of **insects**, **lizards** and **snakes** were all there to greet us. Those of us brave enough were allowed to hold a large **python** and even let a huge **tarantula** spider the size of a tea plate crawl over your hand. There was also a colony of **leaf-cutter ants**, carrying their heavy loads of leaves and flower petals along a rope gantry looping over our heads. The extended area at the rear was where **bees** were on display, but it was still a

bit early to see this section at its best, although an assistant told us much about the lifestyle of the bee and happily answered all our questions.

At about one o'clock we bade farewell to the comfortable surroundings of the Butterfly World and headed back to the coach to eat our lunch. And yes, the rain had eased off a bit, now just a light drizzle. After lunch we drove to our second venue, Arthur's Seat in the centre of Edinburgh. Since Doug Palmer did such a sterling job, in last year's Bulletin (page 36), of describing how this lump of rock appeared in our landscape, I will avoid repetition, and stick to describing our attempts at finding our way around. The rain had stopped, but the summit was shrouded in a thick mist, and undeterred we headed for the top. However we were given wrong directions by a passing gent and headed in the opposite direction, eventually landing back where we had started. Ah well, we would not have seen anything anyway.

We did see one special plant, although even this was a bit of an anticlimax, since the **forked spleenwort**, (*Asplenium septentrionale*) was perhaps less than spectacular. Never mind, Jim said it was quite rare! So that's OK.

Just before we headed back home, the rain started again and we were reduced to watching a **mute swan** sitting on eggs, on a man-made nest platform, while her partner took on all comers who tried to land on the small loch.

All in all, an excellent first outing. Thank goodness we chose a dry venue. A rain forest!!!

Brian Allan

SCRI EVENING OUTING

18th May

It was a perfect evening. The sun shone and a light breeze fanned the trees in front of the main building of the Scottish Crop Research Institute at Invergowrie. Tim Heilbronn, our leader from the Institute, welcomed the 35 Nats members who came along, and introduced the visit.

The tour itself was pitched at just about the right level for our membership and gave a good idea of some of the activities at the Institute. The extensive glasshouses and their contents were very interesting and Tim described a little of the work being done. We also had a chance to look out over some of the experimental fields and view a few of the field trials. The general topic of genetic modification was of great interest to all. In fact, it is not often that the Society manages a full-going debate but we achieved that very well! The final visit, to the weather recording site and the suction trap, was most interesting and encouraged lots of questions about the functions and functioning of the various instruments. The weather instruments recorded all the usual data plus a few more unusual measurements such as grass surface and soil temperatures at various depths. We spent a few minutes watching the Stokes sunshine recorder burn a little more of its long path that day, and learned that the suction trap sampled high-flying insects and had been working continuously since the 1960s.

Then we went in to the lecture theatre for two fascinating presentations, by Brian Boag and Irene Geoghegan, on New Zealand flatworms and on the many species of ladybirds and their parasites respectively. All of us, I'm sure, will be keeping our eyes peeled for giant flatworms and the various types of ladybirds from now on. We're very grateful to all concerned for a most fascinating evening at the Institute.

Jim Cook

INVERNESS WEEKEND

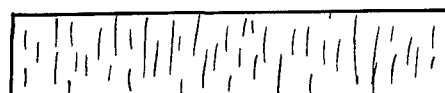
4th-6th June

This year, 1999, as well as being the 125th anniversary of the first meeting of the Dundee Naturalists' Society is also the 25th anniversary of our summer weekends. It was therefore fitting to celebrate the occasion by presenting a birthday cake to our Treasurer, Dorothy Fyffe, who has been on a weekend in each of those years since 1974. Thanks are due to Jim Cook for remembering and handling this happy event. All the weekends have been successful in their different ways, and members will have learned much from them, including I suspect, an ability to cope with and ignore the worst excesses of bad weather. This was a good job; for apart from the odd dryish ten minutes or so now and again, it hardly stopped raining for the whole of the two-day period of this particular weekend.

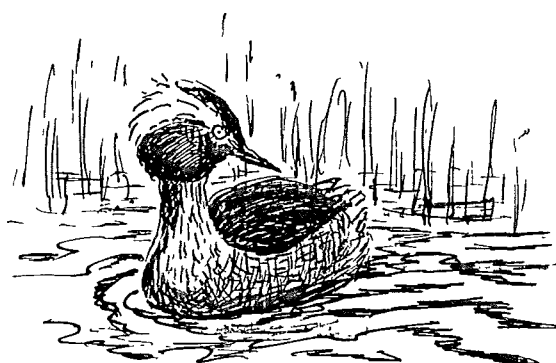
After a very wet drive up the A9, we arrived at Dalneigh Hall of Residence, tucked away in a peripheral housing scheme, just before 8pm. Late, but not too late for an evening meal followed by a stroll to the Caledonian Canal locks where we watched **house martins**. Accommodation was somewhat sparse, but adequate for our needs on such a short stay.

Our first full day started with a damp but still scenic drive to Loch Ruthven, an RSPB reserve which is noted for its breeding population of **Slavonian grebes**. Although numbers seem to have dropped over recent years, we were fortunate to have good views of probably two pairs with nests in emergent vegetation just below a good hide. We also saw a pair of **red-breasted mergansers**, a **dipper**, **mallards**, **teal**, **sedge warbler**, **chaffinch** and a **heron** from or near the hide. **Chickweed**, **wintergreen**, **petty whin** and pure white **heath spotted orchids** were seen in and near the attractive **birch** wood, and **tormentil** was of course prominent amongst the **whin** and **heather**.

From Ruthven we made our way via the pretty Bran Loch to Inverfarigaig on the shore of Loch Ness. Bran Loch was a last minute decision, and had not been checked out for bus



View from Ruthven
hide



Slavonian Grebe

access. However, the risk was taken on the strength of advice from SNH, and we succeeded, but only just, to get the bus round the hairpin bends on the narrow road. The loch is most attractive, being hemmed in by woodland, covered by **waterlilies** and surrounded by squelchy **sphagnum** which inspired very little confidence when attempts were made to progress through it. It is noted as Scotland's best site for **dragonflies** and **damselflies**, but because of the constant and heavy drizzle, none of these were on the wing and sightings were only had of only two or three bedraggled **blue-tailed damselflies** lying on lily leaves. Two rather special dragonflies were seen however, silver ones dangling from the ears of one of our members who wore them in the hope that they would frighten away the midges. They did no such thing! Further down the road were woods of **lichen** encrusted birches growing from bright green mossy hummocks through which bubbling burns tumbled over rocks and boulders. These reminded me of scenes in books of fairy tales read as a child, and I felt as though there should have been the odd elf or two to complete the illusion.

At Inverfargigaig we tried out an assortment of forestry paths through generally open plantations of various ages of **Norway** and **Sitka spruce** with plenty of **larch**, **Douglas fir** and **red cedar**. There was sufficient light for carpets of **wood anemones** (mostly past flowering), **wood sorrel**, **greater stitchwort**, **herb bennet**, **foxgloves**, etc; and one of the paths led up to a lovely viewpoint from which Urquhart Bay could be seen. The Fargigaig Burn was also a sight to behold as it roared down the gorge in another, but more spectacular, green fairyland than the one seen previously at Bran Loch. One notable feature of our stay at Fargigaig was an appearance of the **sun** which must have shone for at least half an hour, during which time Jim, our bus driver, took a stroll down the road and found a **greater spotted woodpecker** nest.

This most enjoyable day ended after dinner with a walk to the hill fort on Craig Phadraig which overlooked the Hall of Residence. This fort is thought to have been the seat of power of the Pictish King Brude mac Maelchon who received St Columba at its gates and granted him leave to carry the Gospels throughout his domains. We had hoped to see **speckled wood butterflies** on the Craig, but conditions were much too wet and we had to be content with a sodden **bluetit** chick standing in the middle of the path onto which it had fallen from a branch. We picked it up and put it out of harm's way.

Our second day, Sunday, was in some ways disappointing, for when calling at the North Kessock Information Centre, the only information I could find was that they were closed until 1pm. This put our timing right out and made it necessary to go on a **dolphin** hunt at Chanonry Point at a quite inappropriate stage of the tide. Needless to say, we saw no dolphins there, and to add insult to injury, we learned that the beasts were leaping the previous day in a deep channel just yards from the high water mark. We did however have the unexpected sight of a large flock of **gannets** stirring up great splashes of spray as they dived en-masse into the Firth. We wondered why the dolphins didn't notice the commotion and home in for the feast. A few **sandwich** and 'comic' **terns**, **cormorants**, assorted **gulls** and a lone **puffin** were added to the species list, but a wet and very windy Chanonry Point is a very long way to go just to see the sorts of birds we could have seen at home. Fortunately, we had fleeting glimpses of **dolphins** rolling in the water beneath the North Kessock Dolphin Centre on our return to Inverness later in the day, but were disappointed not to see **red kites** either at Tore roundabout or Munloch Bay between Tore and Fortrose. This was understandable given the wet

conditions in which adult birds would have been sitting tight in the trees giving shelter to unfledged chicks. We did however spot the 'Cloutie Well' at the roadside on the way to Chanonry Point. Here a large section of wood behind the well is festooned by articles of clothing, mostly children's, by folk who still presumably believe in magic.

In order to end the weekend with something a little different, we drove south east of Inverness to visit the Clava Cairns, a linear group of three enormous stone burial chambers, probably dating from between 3000 and 2500BC, set amongst scattered **beeches**. This must be one of the most impressive and evocative archaeological sites on the Scottish mainland, worth a visit at any time of day and in any weather. We found the weather



here the worst of the weekend, it was terrible. We were seen off by rain which came down in torrents but, in my opinion at least, it was well worth it.

From Clava we drove non-stop to an almost mockingly fine and sunny Dundee, content in that the experience of the weekend had hardened us, making us all the better equipped to withstand the meteorological rigours which awaited us for our Saturday outing to Archaeolink and Aberdeen on the following Saturday.

Bede Pounder

(A family weekend visit to Inverness in April '98 also produced two days of rain, similarly at its worst at Clava, and, as a bonus, some snow. We also saw no kites and no dolphins, the account above sounds horribly familiar! - Ed.)

ARCHAEOLINK AND RIVER DON

12th June

Having received a thorough soaking throughout the previous weekend in the Inverness area, we were disappointed but not surprised that June 12th was to provide a repeat performance. The early weeks of this outings season were certainly a period described to me by an Aberdonian at Archaeolink as being 'ane of affa little drooth'. This must have been the understatement of the year!

All was grey and wet as we headed northwards to Aberdeen and Oyne, except for a fleeting glimpse of colour when we sped past some **orchids**, probably **northern-marsh**, on the grassy verge of the Stonehaven bypass. However, most of the time spent at Archaeolink was under cover. After a brief look round, we enjoyed the spectacular audio-visual display which described some 5,000 years of the Buchan area from the Mesolithic to first millennium times. In this, it was easy to see how our ancestors had to make use of their natural environment to survive. Equally interesting was to listen to a lecture given by archaeologist Dr Hilary Murray. She stood wrapped up as a Pict, at the centre of a reproduction iron-age hut and with one foot in a fire from which copious amounts of smoke arose to sting her eyes and render the upper reaches of the hut roof both waterproof and uninhabitable to 'creepy-crawlies'. The smoke, and dim light, which struggled to enter from the very wet world outside, gave the interior a strange and eerie atmosphere, except when an aggressive **cockereel** strutted in through one of the entrances to exert his territorial authority before being put to noisy flight by a discrete swish from a handy birch branch. The sight of the crescent of mostly sitting or squatting Nats surrounding this tall smoke-begrimed and cosily cloaked Pictess gazing down on their upturned faces, as they strained with rapt attention to catch her every word, is one I will remember for a very long time. It was as though I were witnessing some resurrected dark-age warrior queen giving counsel to her tribe.



It was clear from Dr Murray's discourse that she is very much a 'hands-on' archaeologist who learns about past peoples by carrying out herself those tasks the books tell us these peoples would have done. She was personally involved in both the design of the iron age farm and the gathering of materials and construction, and knows just what had been needed all those years ago to make dyes, stable and effective resin glues, flax ropes, etc. She pointed out that her researches show clearly that only by managing woods by coppicing could poles suitable for building have been harvested in acceptable quantities and on acceptable time scales.

From Archaeolink we went to the mouth of the River Don at Aberdeen where we renewed our acquaintance with the twentieth century by scurrying across the dual carriageway to gain access to the Donmouth Local Nature Reserve. We walked along the south bank of the river to the Brig o'Balgownie and back to the main road along the north bank. Almost microscopic flowers of **starwort** were noticed at the river edge by the keen eyes of Jim Cook, but apart from these the flora, though varied, was unremarkable. **Elm**, **sycamore** and **ash** dripped on us, and masses of **cow parsley** soaked our legs in places. **Sweet cicely** was in seen, and there was plenty of **greater stichwort**, **herb Robert** and **bush vetch**. **Hedge bindweed**, **Himalayan balsam**, and **Japanese**

knotweed were also seen as well as some **charlock** and **dame's violet**. There were no **common seals** in the river below the brig, but we did see **mallards**, a **red-breasted merganser**, a **goldeneye** and a pair of **swans**, one **mute** and one **whooper**.

This particular Riddler's bus must have reeked of damp and camp fire smoke for weeks after this outing!

Bede Pounder

LUNDIE CRAGS

15th June

We had a good turn out for our walk to Lundie Crag. It was a beautiful evening and when we arrived there were still some **butterflies** flying. Richard had his tree beating equipment with him so we decided to beat an **oak** branch. When Richard had beaten the branch there was a mad rush of people with tubes trying to catch what we had caught. There were a couple of species of **sawfly** and lots of other small creepy crawlies.

Recently there had been forestry operations in the area so there were piles of logs beside the path. Beside the path we found some **jay** feathers some of which I collected. We walked past Ledcreeff Loch where the path was slightly bouncy because of the recent forestry.

Past the loch the more adventurous of us climbed up the very steep crags while the others looked for plants down below. The ones who were up the top flushed a **buzzard** from the ground and were rewarded with good views over a large area of the countryside. We all gathered at the base of the crags before slowly wandering back down to our cars. By the time we left it was very late and nearly dark.

Mary Reid (age 11)

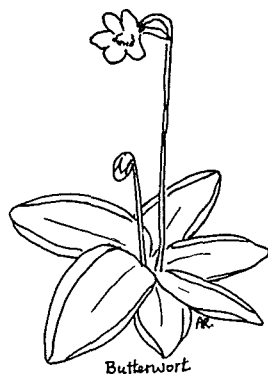
BEN LAWERS

"It's much steeper than I remember!"

26th June

The bus ground its way up to the National Trust Centre and disgorged an eager load of 39 Nats. Not all of us intended to go all the way to the top but everyone was looking forward to seeing a wide variety of species, even as low down as the nature trail and boardwalk. The first part of the track wasn't too bad, with good examples of flowering **starry** and **mossy saxifrages** (*Saxifraga stellaris* and *S. hypnoides*, respectively), **alpine bistort** (*Polygonum viviparum*), **alpine lady's mantle** (*Alchemilla alpina*), **wood cranesbill** (*Geranium sylvaticum*), **lemon-scented mountain fern** (*Thelypteris limbosperma*), **viviparous fescue** (*Festuca ovina* ssp *vivipara*), several **sedges** (*Carex* spp.), and even **sundew** (*Drosera rotundifolia*) and **butterwort** (*Pinguicula vulgaris*) in flower.

Once over the stile, however, the track steepened considerably and we began to puff our way slowly uphill. Younger and fitter walkers seemed to sail by! As we climbed, the wind freshened considerably and carried slight smirrs of rain, but not enough to trouble us.

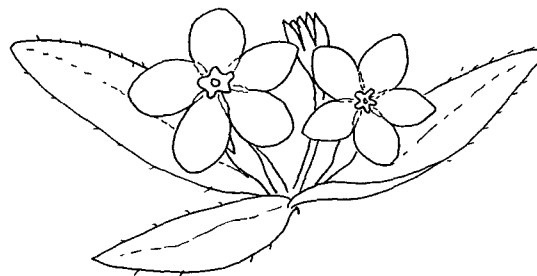


Butterwort

The top of Meall Glas cleared of cloud but the summit of Lawers remained hidden. A fairly large group made it to the first part of the main ridge and stopped for lunch. Suitably refreshed, the party moved along the ridge towards the steep and rocky trail over Meall Glas. There were a few flowers on clumps of **moss campion** (*Silene acaulis*) hiding among the rocks, one or two plants of **northern bedstraw** (*Galium boreale*) and **fir clubmoss** (*Huperzia selago*) and a scattering of **least willow** (*Salix herbacea*). The wind over the top was very strong, the gusts at times being enough to check progress. Sensibly, most members had turned back by this stage and only a quarter of the bus party made it to the cliffs and very few went on to the summit of Ben Lawers.

The hard labour was well worth it, though. The cliffs area was almost at its best. Splashes of sunshine raced over the ground, illuminating patches of colour vibrating in the wind. The bright pink flowers of **moss campion** clustered in abundant tufts, small plants of **wild pansy** (*Viola tricolor*), **dwarf cudweed** (*Gnaphalium supinum*), **northern yellow-rattle** (*Rhinanthus boreale*) and **alpine mouse-ear chickweed** (*Cerastium alpinum*) dotted the slopes and **hoary whitlow-grass** (*Draba incana*) and **mountain sorrel** (*Oxyria digyna*) clustered in sheltered crevices. On the lower and wetter ground we found **alpine meadow-rue** (*Thalictrum alpinum*), **yellow mountain saxifrage** (*Saxifraga aizoides*), **alpine pearlwort** (*Sagina saginoides*), **mossy cyphel** (*Minuartia sedoides*), **spiked woodrush** (*Luzula spicata*), **sibbaldia** (*Sibbaldia procumbens*), **russet sedge** (*Carex saxatilis*) and a tiny clump of **Scottish scurvy-grass** (*Cochlearia micacea*).

A veritable rock garden bloomed on the cliffs and steep gulleys above us. Among the most notable species were **purple saxifrage** (*Saxifraga oppositifolia*), still with a few flowers, **globoseflower** (*Trollius europaeus*), **roseroot** (*Sedum rosea*), **goldenrod** (*Solidago virgaurea*), **hairy stonecrop** (*Sedum villosum*), **net-leaved willow** (*Salix reticulata*), **alpine meadow-grass** (*Poa alpina*), **hawkweeds** (*Hieracium* spp.) and - magnificently - numerous tufts of **alpine forget-me-not** (*Myosotis alpestris*). The sky blue flowers, large for forget-me-nots, have to be seen to appreciate the wonderful colour (which film rarely captures) and there were more plants in full flower than I'd ever seen before. Just at the critical moment the sun came out. Absolutely superb! The blue of the flowers almost glowed. Everyone enthused. We all thought that this species alone made the whole visit worthwhile. The greatest difficulty was the lack of time.



On the way back we were able to find a few specimens of **two-flowered rush** (*Juncus biglumis*) in one marshy area and, lower down, the alpine version of **marsh marigold** (*Caltha palustris*), **marsh arrowgrass** (*Triglochin palustris*) and **Scottish asphodel** (*Tofieldia pusilla*). It had been a wonderful day, one of my best ever on the hill, but as our esteemed President, Bede Pounder, said on the way home, "It's much steeper than I remembered it the last time I was up there!"

Jim Cook

125TH ANNIVERSARY PHOTOGRAPHS DUNDEE LAW 29th June

The idea was to give the Society some publicity connected with the 125th Anniversary. Quite who decided that we should try to dress ourselves in appropriately Victorian outfits has conveniently been forgotten, but with the help of Bede's various contacts four of us were prepared to look silly "just for fun". The Courier was duly contacted and provided with a typed "press release" and agreed that this would probably merit the attendance of one of their photographers.

Jim Cook and Bede were clad in suitably ancient tweed garments, while Colin Reid looked like a very important personage in his top hat (once his grandfather's) and tail coat (Oxfam). The skirt and bodice borrowed from theatrical costumier fitted Anne remarkably well and only needed a few strategic safety pins to adapt it to the correct shape. The hat was more of a problem. When we got to the top of Dundee Law it was blowing a full gale, and despite the use of a hatpin and lots of clips, it only just stayed on for long enough - many of the photos show a hand holding it on! We also carried suitable "props" including a butterfly net, Brian's vasculum and old fashioned magnifying glasses.

The photographer duly appeared and took shots with Normans Law in the background, as the 125th celebrations were to include the repeat of an early Nats outing there. (See p 14). Gordon Maxwell and Dorothy Pounder acted as the Society's official photographers to record the occasion.

Maxwell and Dorothy Pounder acted as the Society's official photographers to record the occasion. Some local children looked on in disbelief, and eventually plucked up courage to ask what we were dressed as, and why. They may have regretted this, as they got a full explanation, but Dorothy took their photos beside the Victorian Nats and sent them a copy later. A short article and photo appeared in the Courier the following day, to the amusement of many friends and acquaintances!

Anne Reid



'Victorian Nats' on Dundee Law, celebrating 125 years of the Society.
From left, Colin Reid, Anne Reid, Jim Cook and Bede Pounder. Photo by Gordon Maxwell.

NORMANS LAW

July 10th

The excursion to Normans Law was chosen to commemorate the 125th anniversary of the founding of the Dundee Naturalists' Society in 1874, when on July 31st of that year, a small group travelled via Kilmany and Luthrie to the Free Kirk manse at Brunton from where the Law was climbed. An excellent account of the 1874 outing was published in the Dundee Advertiser and was reprinted as an enclosure with our 1998 Bulletin issued to all members in March '99. Reference will be made to its contents in the following report. (Anyone requiring a copy please contact the editor.)

The 1874 group crossed the Tay by steam ferry to Newport and progressed through Fife by wagonette, no doubt at a rate that afforded plenty of time to observe the natural history along the

road sides, and opportunities to alight at sites such as a pond at Rathillet which merited detailed examination. On July 10th of 1999, much more comfortable but non-stop progress was made in a large bus, but at speeds that made it much more difficult to take in fine details of what was being passed. Despite this, we would have been more than surprised to have seen **restharrow** "in profusion", and **blue cyanus** (cornflower) "in myriads with **poppies**", reported in the 1874 cornfields. Neither would we have seen **scarlet pimpernel** had we had opportunities to stop and search for them. However, our predecessors would have been pleased to know that our intensely farmed fields are still able to harbour an interesting variety of resilient species as will be shown below, and that the July 31st 1999 road verges at least would have been resplendent with the "**large scabious** (*Knautia arvensis*) dominating over the **native campanula** (*C. rotundifolia*), relieved in their blues by the **lotus**, **major** and **minor** (*L. corniculatus* and *pediculatus*), **mayweed** (*Tripleurospermum inodorum*), **yarrow** (*Achillea millefolium*), and **stellaria** (*S. media?*)". **Equisetum** might be difficult to find along the well-drained road verges of north-east Fife today, but **woundwort**, **red and white champions**, **buttercups**, and **selfheal** still thrive, as do **meadowsweet** and the "**meadow lychnis**" (*L. flos-cuculi*) in damp ditches. **Nipplewort** and other yellow composites which could well have included the "**small branched hawkweed**" could be seen in plenty from the bus, as well as "**white, blue and yellow vetches** and **trefoils**" in the form of **clover**, **tufted vetch** and **yellow meadow vetchling**. **Orpine** would probably not have been found on our journey, no matter how diligent the search, but **hogweed** and **upright hedge parsley** were both seen in abundance. It is surprising that no mention of these umbellifers was made in the 1874 report.

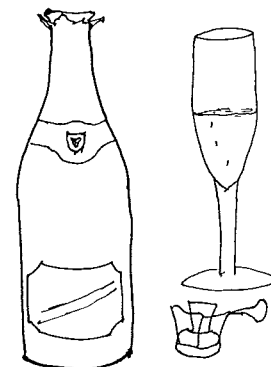
It is surprising also that the report made no mention of **corn marigolds**. No-one would expect to find these in the fields of Fife today, so it was quite a surprise to notice them giving a patch of brilliant yellow in the corner of a field just outside Brunton on a return visit made in early August.

At Bruntonhill, we were warmly welcomed by Mr and Mrs Jennings at their home on the site of the original Free Church Manse of Flisk and Creich where we were pleased to see that the lintel with the inscription '*Ut migraturus habita*' has been preserved. We admired the carefully maintained outbuildings of the original manse and fine specimens of **olearia** and **eucalyptus** before leaving the garden and heading across grassy pasture to a gate which gave access to a cultivated field, all the while keeping our main objective straight ahead. The pasture held little of botanical interest, but a narrow strip only about 3 metres wide along the edge of the second field yielded a surprising number of agricultural weed species which had thrived in the shelter of a commercial crop and a drystone dyke which edged the field. The dyke separated the field from steep grassland, densely covered in places by **gorse** and **bracken** (**eagle brake** in the 1874 report) and topped by scattered **Scots pine**. Some **biting stonecrop**, **bugloss**, **ragwort** and large specimens of **red deadnettle** were found amongst a pile of boulders cleared from the field. Although **foxgloves** were seen in plenty, there were not the hundreds reported in 1874. The dyke was crossed via a double gate and access gained to steep ground covered in places by evidence of recent tree felling and a flora which indicated that the ground had been free from cultivation for a long period. Here we found 'heathy' species such as **tortmentil**, **heath bedstraw** and **heath speedwell**, as well as **lady's bedstraw** and **birdsfoot trefoil** and other species. A complete list of species recorded on this outing can be obtained on request to the editor.

A dense mixed wood which may have been at one time part of the woods of Carphin referred to in the 1874 report was skirted before crossing the farm road which leads in a northerly direction to the Brunton-Fliskmillan road where the bus was waiting. A brief rest here gave time to admire **ringlelet**, **meadow brown** and **small heath butterflies** and some **silverweed**, before crossing the road and starting the steep ascent of the Law.

The party was advised to swing round the north side of the hill when making the ascent in order to put off the spectacular view from the summit until the final moment when the cairn was gained. Unfortunately, the weather was extremely warm and humid and the vistas were spoiled by haar along the rivers and mists that removed any possibility of getting a view of the "German Ocean". However, the red-faced and perspiring throng draped round the summit cairn soon had a close-up view to admire: a bottle of commemorative 'bubbly' which was rapidly consumed while photographs were taken. This was an admirable way to celebrate a notable achievement!

The rough grazing upper section of the Law was dominated by **fescues**, **bents**, **wavy hair grass**, **cocksfoot**,



false oat grass and extensive carpets of well-grazed **bell heather** and **ling** amongst which **tormentil** and **heath bedstraw** were prolific in number. However, there were surprises. For example, **germander speedwell** was found right up to the windswept ramparts of the iron-age fort on the summit where **foxgloves** and **ferns** grew amongst the boulders. Well manured hollows within the summit fort area, where cattle obviously shelter, held **lady's bedstraw** and some dense **nettle** beds. Some spots on the flanks of the hill were dampened by nutrient-rich spring waters, which helped sustain patches of **rock rose** (*cistus* in the 1874 report) and **quaking grass**, both of which are calcicoles, fringed with acid heath species such as **heath woodrush**, **tormentil**, **heath bedstraw**, **bell heather** and **ling**.

Another surprise first noticed during a 'recce' earlier in the year was the presence of typical woodland species such as **wood anemone** and **wood sorrel** which, with **wood sage** and even a specimen of **dog's mercury** seen on this trip, confirmed the existence of an extensive tree cover of much of the Law in former times. **Harebells** and **yarrow**, both recorded in 1874 were just beginning to flower on our outing, but we failed to locate **mountain violets** (*V. lutea*) despite them having been seen in recent years.

Some of the larger drainage channels on the north face of the hill led into interesting marshy areas or flushes, two of which were checked out in a visit three weeks after the commemorative outing when Jim Cook offered to survey the grasses on the Law. They were found to contain quite different ranges of marsh species, despite their close proximity and similar sizes. The first contained a greater variety of species than the second, those noted being **marsh**, **spear** and **creeping thistles**, **lesser spearwort**, the **marsh** species of **bedstraw**, **willowherb**, **forget-me-not** and **pennywort**, **creeping willow**, **greater birdsfoot trefoil**, **purple moor grass**, **common**, **jointed** and **toad rushes** and the following **sedges**, **common**, **carnation**, **glaucous** and **long-stalked**. This number of species in an area of not much more than 50 square metres and the presence of the **glaucous** and **long-stalked sedges** indicates nutrient-rich conditions in the marsh. The second marshy flush sustained **marsh violet**, **bitter vetch** and **tufted vetch**, pads of **sphagnum** and **spring**, **flea**, **star** and **false fox sedges**. **Marsh violet**, **star sedge** and particularly **sphagnum moss** indicate that this marsh was much more acid than the first.

The flora list was completed at a small outcrop of lava on the farm road which led back to the bus, but while noting leaves of **burnet saxifrage** and other species listed in the Appendix, we were aware of surprise goings-on where the bus was parked just a little way along the track. A group of those who had decided against ascending the Law had returned early to the bus and laid out a table on which were set glasses and more 'bubbly'. After lubrication of some very dry thrapples, thanks were expressed to those responsible, particularly Anne Reid and Roma Millar, for the very welcome refreshments, and a toast proposed to the 'NATS'. It was a pleasant surprise to have an opportunity to meet Mr Oswald, who has Normans Law in his care, when he found time to stop by for a chat during the road-side festivities.

Despite the humid, energy-sapping weather, this was a most successful outing. The festive offerings on the summit and on the return to the bus must have been partly responsible of course, but so must the warm and sincere welcome we received from Mr and Mrs Jennings who got everything off to such a good start. I can do no better in conclusion by appending an anonymous contribution (with thanks to the Bard) from one of our members which seems to sum up the feelings of many who took part.

We few, we happy few, we band of brothers-
For he today who walks the hill with me
Shall be my brother, be he ne'er so vile
This day shall gentle his condition;
And naturalists in Scotland still abed
Shall think themselves accurs'd they were not here,
And hold their membership cheap while any (one) speaks
Who walks with us on Anniversary Day!

Bede Pounder

ABERNETHY GLEN

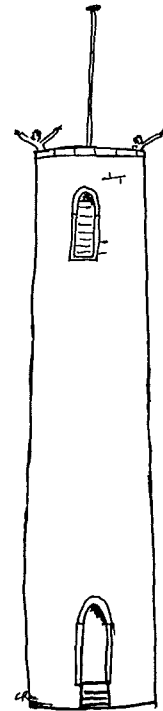
July 10th

I once saw an exhibition photograph which depicted a group of people sheltering in the patch of shade cast by a lone palm tree, the only piece of vegetation in an otherwise flat and empty desert landscape onto which a blazing sun shone mercilessly. I was reminded of this during a 'comfort stop' on our way to Abernethy, our objective on the afternoon of the anniversary trip to Normans Law, in a hot and sticky Newburgh where, beneath a lone **rowan**, a group of Nats stood in silence with their backs to the trunk and ice-cream cones held out before them at the 'present', enjoying the comfort of a little shelter from the glare of an unusually fierce Fife sun.

Such was the heat, that very few members were really eager to get into action on leaving the bus, apart from one or two of more tender years than most who were calling to those below from the top of the Round Tower after what seemed to be no more than a few seconds. However, most did eventually commence the trek, but in some cases only after visits to the tea shop or other establishments from which refreshments could be obtained in the liquid state.

The walk up the glen was pleasant, provided that a slow pace was maintained and advantage taken of the shade afforded by the good tree cover, and we noted an interesting flora which included plenty of **cow parsley** in seed, **pignut**, **ground elder**, **hogweed**, **wood sage**, **figwort**, **silverweed**, **St John's wort**, **yellow meadow vetchling**, and **white deadnettle** in full flower. Two **orchid** species were seen, some **northern marsh** near a small quarry, and a fine specimen of **twayblade** at the edge of the path at one point. There was not much in the way of bird life, which was not surprising for a warm afternoon in high summer, but a **buzzard** was seen making the most of warm thermals, and some members of a small group were startled by a screaming **sparrowhawk** which shot across their path as it dived headlong into the depths of the wooded den below.

The path up the glen eventually reached the tarmac road which we followed for a little way downhill before completing a circular walk back to the village via the inappropriately named 'Rough Glen'. At one point on the tarmac road, a signpost was passed indicating a steep path leading to the summit of Castle Law on which is striking evidence of an iron-age timberlaced hillfort. The panoramic view from this summit is spectacular and includes the strath of the Earn and estuary of the Tay, both backed by ranges of near and distant hills, and the site of Carpow from which the Romans are thought to have bridged the Tay during the campaign against the Picts by emperor Septimus Severus. Such was the heat, that only one of our members responded to the challenge posed by that signpost!



Bede Pounder

ANGUS COAST ORCHIDS

13th July and 17th August

During the summer of 1998 one of our members, Les Tucker, discovered a colony of **pyramidal orchids**, *Anacamptis pyramidalis*, on the coastal dunes between Easthaven and Elliot (See 1998 Bulletin, page 29). He also found a number of sites for **frog orchid**, *Coeloglossum viride*, in the same area. Pyramidal orchids had never before been recorded from Angus and coastal sites for the frog orchid are a few as hen's teeth!

So, it was agreed that we should organise a Tuesday evening outing to let as many of our members as possible see these rare orchids and a date in 1999 about the time the plants were in flower during 1998 was chosen. However... as the hot summer progressed it was evident that the orchids would be at their best some three weeks earlier than the previous year so we decided at short notice to bring the event forward. We let as many people as we could know of this change on the Saturday bus trip prior to the new Tuesday date and phoned as many others as possible.



Frog orchid -
single floret

On the night, a goodly crowd met at Easthaven car park and we headed east towards Elliot in search of these new additions to our county flora. On the way we saw a number of other plants including **lucerne**, which at one time was a crop thereabouts, and **white** and **red campion** as well as the closely related **bladder campion**. **Harebell**, **tansy**, **field bindweed** and **ox-eye daisies** also were spotted.

As we approached the pyramidal orchid site we became alarmed at the close proximity of the massive excavations for the new sewage pumping station and it looked, from a distance, that the site may have been destroyed. But as we drew closer we were relieved that the orchid sites were at least 100 metres short of the construction work and had come to no harm. Quite the contrary, the colony had many more spikes than had been seen the previous year and all were in tip top condition. We then returned to Easthaven having seen both orchid species, safe in the knowledge that they had remained undisturbed by the earthworks associated with the sewage works.

To ensure that no one missed out on the chance to see the site, we had another walk on the date published in the syllabus and even at that late date in the season we still saw a number of spikes of both species albeit, by then, a bit past their best.

Brian Allan

TREE WALK IN CAMPERDOWN COUNTRY PARK

20th July

We enjoyed a feast of expertise on this evening excursion. We were guided by Eric Hamilton, Douglas Shearer and Neil Brady - City of Dundee foresters and aboriculturalists. We were also provided with a 19-page personalised brochure describing the Camperdown policy woodlands - one of the finest collections of mature tree specimens in the locality.

Some surviving trees were from the earliest plantings in 1797 but the majority of mature trees present were planted between 1804 and 1859. Eric explained plans to continue the development of an arboretum to the south of the mansion house.

We were given the experience of measuring the height of trees using a **clinometer** and were shown round the sawmill. Some problems were described including the pressure of vehicles and trampling feet compacting the soil over tree roots and causing premature deaths. **Dutch elm disease** was a continuing problem with 40 trees developing the disease this year. 2000 elms were still left in the city and 600 remained in the Park. We saw the famous **Camperdown elm** (now fenced off). 200 new ones of these have been recently propagated.

We were fascinated, but overwhelmed, by the sheer numbers of exotic tree species. Hopefully the twenty Nats who attended will remember special favourites and will refer to their notes on future visits.

Margaret Duncan

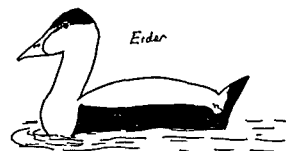
BENHOLM MILL AND SHORE WALK TO JOHNSHAVEN

14th August

The forecast was a bit of a mixture for Saturday as we set off for Benholm Mill and the foreshore along to Johnshaven. Before reaching Benholm, Alban Houghton suggested that we stop on the outskirts of Montrose where a colony of **terns** were nesting on the roof of a factory in an industrial estate. The bus stopped for about 20 minutes while about a dozen binocular bedecked Nats observed the terns. There appeared to be about thirty to forty birds, some on a corrugated asbestos roof and others (more difficult to see) on a flat roof. Various suggestions were made as to which species they were, but Dorothy Fyffe (no slouch at identification) assured us that they were **arctic terns**.

So, on to Benholm Mill This small water driven meal mill is the only surviving traditional mill in Kincardine It lies between the small fishing villages of Gourdon and Johnshaven just off the main road On arrival, most chose to take the guided tour around the mill, led by the resident miller, though others took advantage of the small cafe which did a good line in coffee and buns. Some others did the short woodland walk and spotted a number of small birds and various fungi and plant species.

The weather had been kind to us so far and we headed for the foreshore for the two mile walk to Johnshaven. The original intention had been to walk to Gourdon, but on discovering that a fish festival was being held in Johnshaven, the destination was changed. A number of seabirds were recorded en route such as **eider** (a lot), **terns**, **gannets**, **ringed plover**, **redshank**, **turnstones** and **herons** A few land birds noted were **goldfinch**, **swallow**, **house martin**, **greenfinch**, **wren** and **peewit**. Though, by now, the weather had dulled considerably and rain was obviously not far off, we did see a few **butterflies**, including **meadow brown**, **common blue** and **green veined white**. Approaching the village this forecast was only too well borne out when a steady downpour diminished the delights of the fish festival. Some took shelter near the various stalls, others were "forced" into the nearest hostelry where a lively selection of folk music kept them entertained. Eventually the rain cleared, and after a quick look round the various displays on show, the Nats straggled their way up the short, but steep, half mile to the bus awaiting us on the main road I think it would be fair to say that most enjoyed the day, if not for the volume of wildlife, at least for the variety of the day's activities



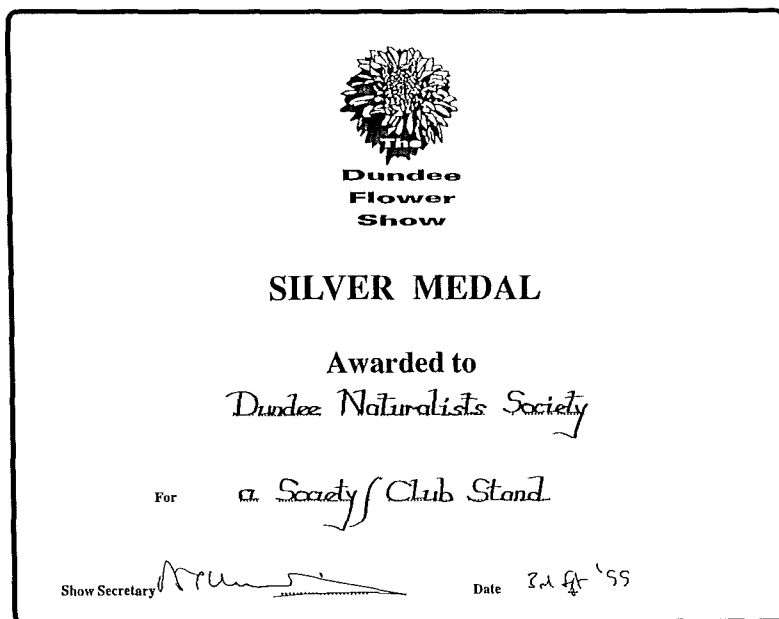
Gordon Maxwell

DUNDEE FLOWER SHOW

5th - 7th September

One of our biennial events since 1993 has been the submission of a display to the Dundee Flower Show, and we were delighted this year to receive a Silver Medal Award, our second in only four shows entered! Our entry covered seashore food sources and a large desert island 'shelter' as part of a Robinson Crusoe theme for displays in our category.

We are indebted to Jim Cook for his ideas and drive, and to both him and Gordon Maxwell for help in transporting heavy and awkward loads between Barry and Dundee, and the erection and taking down of the display Thanks are also due to Margaret McLaren who, with assistance from Roma Millar, provided excellent displays and a children's 'wild food' competition, and especially to Peter Ellis for converting good ideas for the design of the shelter into really first class hardware which included willow hurdles and hand-plaited rush ropes Peter's shelter must have been the biggest factor in gaining the Silver Award.



The winners in a 'feelie' quiz for adults, produced by Peter and Jim, and Margaret's 'wild food' quiz were Nicola Colliston of Monikie and Gillian Bolton of Monifieth, respectively, the draw being made by Councillor Farquhar

This was an excellent event, but we will try for a different display location next time, the 'Kiddies' tent is not the best to attract potential new adult members

Bede Pounder

THE DEN OF AIRLIE

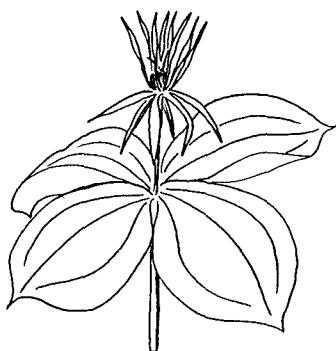
11th September

The outing to the Den of Airlie was well supported, with about 40 members arriving by Riddler's coach and another ten local people joining in. The party first stopped at the Brae of Airlie Farmhouse for coffee, before going the last mile to the Mains of Airlie to park the coach.

The walk began at the main entrance to the Castle, about half the party going up the drive to see the famous **laburnum** walk of pleached trees and going into the walled garden. This has many **yew** trees planted to represent the armies at the battle of Waterloo. Lord Ogilvy is trying to restore the rest of the area after 15 years dereliction.

The rest of the party, led by Gordon Maxwell and Jim Cook, left the drive at the gates and followed a steep path through the woods, to unite again at the Castle gate. The Den of Airlie is a three pronged ravine, formed by the Melgam Water joining the River Isla, with such force that the river is said to be the only place in the British Isles where the water flows both east and west. On all sides there is a wooded drop of about 100ft, straight down to the water. There are several rare plants, trapped here in their own protected habitat.

The Airlie land was given to the Ogilvys in 1172 by William the Lion, traditionally for saving the king's life, on condition they always supplied a knight for the royal army. The Castle was old in 1401, when Sir Walter Ogilvy added to the top of three sides of a peninsulated rock, thirty foot walls, ten feet thick, a broad ditch on the one remaining side with a drawbridge and portcullis. The Castle was sacked in 1640 by the Earl of Argyll and everything demolished except two walls. Subsequently the present residence was re-built along one wall, only one room thick. The arched entrance and portcullis are still there on the other wall. The family was not in residence, but we were allowed to go onto the Castle Green, inside the gate, and look about.



Then the whole party gathered for lunch on a gravel spit below where the rivers joined. Afterwards we proceeded up the Melgam and back to the coach. There were not many fungi as it had been so dry and was a bit early. The most exciting were *Russula virescens*, which is a dusty green and very uncommon, and

Collybia confluens, which grows in clumps and has furry feet. **Dryad's saddle**, *Polyporus squamosus*, the edible bracket fungus, and *Armillaria mellea*, the **honey fungus**, a major tree parasite, were also found. One plant seen was the **herb Paris**, which is almost unknown in Scotland.

Mamie Bruce-Gardyne

AUTUMN MEETINGS 1999

MILLING IN HARMONY WITH NATURE

Peter Ellis 12th October

Our winter lectures began with an interesting and fascinating talk by Peter Ellis who is the NTS representative and miller at Barry Mill, in addition to being a council member of the Nats. About forty members were present.

He started by explaining the confusion over the word "corn" which is oats in Scotland, wheat in England and maize in the United States. Thus, cornflakes, with which we are all familiar as a breakfast cereal, is actually made from American maize.

The first mills were simple hand operated stones. As most people were right handed, the tradition arose of operating the stones by turning the quern in a clockwise direction. Our ancestors were naturally superstitious and turned the hand mills in the manner that the sun appeared to travel through the sky in the northern hemisphere. In Gaelic, the word diasuil (pronounced 'deeshull') translates as sunwise. When clocks were invented this became clockwise. This motion of diasuil or clockwise gave rise to the dominant use of the right hand which has survived to this day. To turn stones widdershins was tempting fate. The very word sinister with its connotations of evil comes from the Latin meaning left. Later, when mills were operated by wind or water power the tradition of turning clockwise was carried over into the mechanical process. It has always been considered unlucky to turn millstones anticlockwise.

Every village had its mill and the people were directed to take their grain there. As corn made up the bulk of the staple diet, most of a person's wages would be spent on this commodity. Because everyone used their local mill it was the hub of village life where news would be exchanged. Many of our well-known sayings had their origins in milling - 'to go through the mill', 'to mill about', 'to carry a millstone about one's neck' and 'bread winner'. If you overload the system it comes to a 'grinding halt', and the mill was worked by 'rule of thumb' where adjustments were made within the limits of one's experience.

The second part of the talk consisted of many fine slides. One which sticks particularly in my mind, as exemplifying the once traditional way of garnering corn, was a field of golden stooks standing north/south (so that the wind and sun could dry them within three church bells i.e. two weeks). In another slide we realised what a craftsman Peter is when we viewed the huge ash beam, cut by water power and shaped like a saddle, which he had fashioned to support the machinery of a mill where he had worked in Cumbria.



At the end of his talk the audience were invited to view a well-thought-out display of the various grains along with pictures of old grinding stones patterned to spread the grain evenly. The talk, the slides and the display all involved Peter in a great deal of preparation, and the audience showed their appreciation in the applause he received.

Margaret McLaren

PLANT LIFE IN NEW ZEALAND – A TALE OF ISOLATION

Professor Robert Crawford 26th October

Professor Crawford delivered a most interesting and thought-provoking lecture. Because of his background as a professor of plant ecology he was able to maximise his short working visit (two months) to Christchurch in the South Island of New Zealand. From his weekend field trips he was able to illustrate for us a range of unique plants from coast to coast, from the east coast shore-line through rain-shadow plains, across Arthur's Pass in the Southern Alps to true rainforest (9 metres of rain p.a.) and ending on the wind-swept west coast.

He had been surprised by the many differences in the flora which seemed to be obeying different laws from plants in the northern hemisphere. With a different geological history, time scale and origin, plants had followed unusual paths. A significant climate cooling 60 million years ago had encouraged speciation. There were not many plant genera but a large number of species. A mountain-building period 2 million years ago also had its effects. Mountains were still rising at 1cm per year but also eroding quite rapidly. New Zealand pours more sediment into its seas than any other country of its size.

He explained that a typical plant form in many genera was a tussock shape. This can withstand erosion movement, wind, and temperature fluctuation. None of the plants were adapted to resist grazing by mammals but several had defences against grazing by large birds (moas). Most of those employed thorns (eg Matagouri, *Discaria tumatou*) but *Urtica ferox* was a nettle with a ferocious sting.

Contrary to British conditions, nutrients were more plentiful for plants high up the mountains than in the washed out valleys. Dioecious plants are more common in New Zealand than anywhere else - 16% of all native flowering plants and 33% of genera. This is possibly a strategy to cope with an unstable environment and the periphery of a habitat is where most variation occurs.

Although the climate is warming noticeably (for example, one glacier has retreated 10 miles in the last 100 years), the upper tree line has not altered. Professor Crawford put forward a theory which might explain this and left us with plenty of food for thought.

We saw a few familiar plants which tolerate British garden conditions (such as *Acaenas*, *Aciphyllas*, *Olearias*, *Celmisias*) but most were strangers to us.

Margaret Duncan

125th ANNIVERSARY DINNER

4th November

A company of 39 members and guests were present at the Woodlands Hotel for the Society's 125th Anniversary Dinner. President Bede Pounder in his address paid tribute to those who founded the Society and achieved such a high membership in the first two decades of its existence by means of attractive lecture syllabuses on a wide variety of topics to both its own members and outside audiences. However, the Society became a victim of its own success by spawning more and more competing specialist societies with the result that it almost collapsed at the turn of the century until rescued by an influx of new members at the time of the British Association meeting in Dundee in 1912. A high level of membership was then maintained until well after the Second World War until 1972 when a second membership crisis developed, and there was a proposal that the Society be wound up. This proposal failed, and Elizabeth Leitch was instrumental in a successful reorganisation which saw the Society through to its centenary, and with membership increasing to such a level that by the time of her successor, Bob Philip, two coaches were required to cope with the numbers wishing to go on Saturday outings. The excellent secretaryship of Mrs Betty McClure during a crucial period was referred to. The President praised the consistently good leadership in recent years and the fellowship resulting from our annual weekends and the Carsegowniemuir Wood project, for which thanks were due to Margaret Duncan, Jim Cook and those who had spent long hours planting trees in the spade-resistant soil. A toast to the continuing well-being of the Society was proposed by Jim Cook.

After the meal, our guest of honour, Jim Crumley, was introduced by the President. Mr Crumley, a local man, journalist, conservationist and author of 15 books on wildlife and landscape topics, then treated the assembly to a fine talk and slide show on wildlife and landscape in general, and the Cairngorms in particular. A display of Jim's books was on display and eagerly scrutinised.

A vote of thanks was proposed by Brian Allan who also asked members to thank Jim Cook, Dorothy Fyffe and our President Bede Pounder for their efforts in organising what proved to be a very enjoyable evening.

Signed cards were sent out to Elizabeth Leitch, Bob Philip and Betty McClure to mark the occasion.

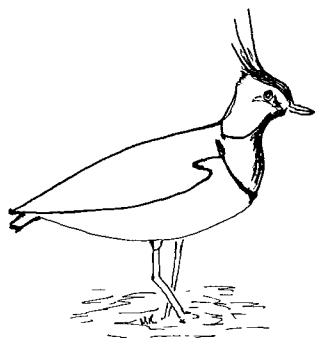
Gordon Maxwell

SATURDAY ON THE EDEN

or

Does the Sun Always Shine?

6th November



They say the sun shines on the righteous - so how come we're so lucky? (Speak for yourself! - Ed) On Friday it poured and the heavens opened again on Sunday, but the Saturday was superb; Naturalists' luck again! A total of 26 keen and hungry members met in the lay-by just over the Eden bridge and spent time watching numerous **gulls**, **mallard** and **eider**, many **redshanks**, a few **oystercatchers** and a lone **greenshank** - but no **kingfisher**. (I wonder whether it survived the **raptor** attack a few days before? See page 27)

We followed the small path upstream, keeping an eye open for more birds. The field on the opposite bank harboured dozens of **lapwings** and **crows/rooks**, with numbers of **redshanks** standing on

the shore amidst stalking **curlews**. On a spit further upstream a crowd of **ducks** and **gulls** were just too far away even for a telescope to resolve. A honking V of **greylags** arrowed overhead. Close by on the eastern shore a couple of **bar-tailed godwits** probed the mud at the water's edge. Stands of **sea club-rush** (*Scirpus maritimus*), **reed sweet-grass** (*Glyceria maxima*), **meadowsweet** (*Filipendula ulmaria*) and some **reed canary-grass** (*Phalaris arundinacea*) still stood green and proud. Obviously there hadn't yet been much of a frost. (By the way, do you know the connection between meadowsweet and aspirin?)

The path wound away from the water and took the party up into Kincaple Den. Someone in the vanguard saw a **roe deer** and a number of us drove a nervous **heron** to distraction - but quite unintentionally! Lonesome leaves still rustled on the trees but there were still a few fine **fungi** to be found, good clumps of **clouded agarics** (*Clitocybe nebularis*), one or two rather dried **jew's ears** (*Auricularia auriculi*), a small **orange jelly fungus** (*Dacrymyces stillatus*) and loads of **coral spot** (*Nectria cinnabarina*). A number of flowers still showed colour, again demonstrating the lack of frost - **creeping buttercup** (*Ranunculus repens*), **hogweed** (*Heracleum sphondylium*), **red campion** (*Silene dioica*) and **black knapweed** (*Centaurea nigra*).

Most people made it up to the small fishing reservoir, inhabited by a few **mallard** and a **moorhen**. A few turned back there but the majority went on to complete the circuit back to the cars - just the thing to develop a hearty appetite for the lunch at the St Michael's Inn. In the afternoon various parties sallied out to enjoy the warmth and sun. One group at Tayport was rewarded by the sight of a tabby **cat** catching a full grown **mallard** (see page 27). Obviously the sun had given the cat a good appetite as well, but I bet the duck wasn't greatly impressed!

Jim Cook

CONSERVING WILDLIFE ON THE FARM

Sophie Milner 9th November

An excellent, succinct and lucid lecture, just how it should be done! Sophie had worked in agriculture and had been a land agent for the National Trust, but is now the full-time Angus and Dundee representative of FWAG - the Farming and Wildlife Advisory Group.

FWAG began in southern England in 1969 as an organisation run by farmers for farmers. It arrived in Scotland in 1984 and there are now 25 FWAG advisers north of the border. The organisation is farmer-led and is based on local groups with voluntary committees. Funding comes from SEPA (Scottish Environment Protection Agency), the Scottish Wildlife Trust, Angus Council and other grant awarding bodies.

In Scotland, FWAG is an active organisation and, in the last year, made about two thousand farm visits, covering about 1.25 million acres - a substantial part of the countryside. Sophie herself makes 100 to 120 visits per year in the local area. She also spends considerable time in running training courses and sessions, in meetings, making presentations, taking part in shows and liaising between farmers and a variety of people and organisations involved with wildlife. Her role is not to seek wildlife issues and sites but to respond to requests from farmers. The initial visit is free but she charges for further visits and advice.



Sophie discussed a number of farming and wildlife issues and showed slides illustrating her points. She spends a considerable time on all aspects of farm woodlands, mostly on a small scale. Advice is also given on most other aspects including hedges, field margins, set-aside, water quality and hill farming. Her remit is much wider than just conserving wildlife and includes advising on landscaping and on unusual habitats such as old quarries, tracks and verges.

In addition, Sophie is a member of the Local Biodiversity Action Plan (LBAP) group and shortly will be involved in public consultations. She ably demonstrated the wide range of her activities and the practical 'hands on' nature of her tasks in helping to conserve and improve the wildlife of our area. We learned just how important FWAG had become and how much more we all have to do.

Jim Cook

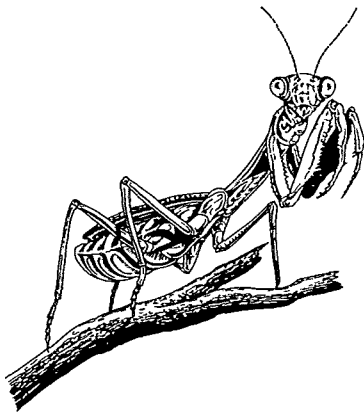
PLANTS OF THE PYRENEES

Barbara Hogarth 30th November

The 3000m peaks of the Pyrenees are a joy to walk in and the mountain flowers are superb. The society was introduced to the delights of the French and Spanish sides of the range by Barbara Hogarth who has visited it five times in recent years. The mountains are relatively young in geological terms, with jagged **peaks**, deep **U-shaped valleys**, **moraines** and **lochs**. Sedimentary rocks overlie a crystalline base so that the several rock types (**gneiss**, **granite**, **crystalline schist** and **limestone**) support varied habitats and their associated plant communities

Gavarnie is invaded daily by coach loads of tourists from nearby Lourdes who often take pony rides into the mountains. So, leaving the tourists and the aroma of horse-dung behind, Barbara took us first to the Cirque de Gavarnie, where the **catchfly** (*Silene pusilla*) grows under the 1400m grande cascade - one very long waterfall! **Wall brown** and **clouded yellow butterflies** plus **spiked Pyrenean speedwell** (*Veronica ponaë*) and **blue saxifrage** (*Saxifraga caesia*) were seen too. In the company of many walkers, Barbara took the definitely non-Wilderness Walk (pace Cameron McNeish) to the spectacular Breche de Roland. The vista towards Spain was one of multi-coloured peaks and gigantic limestone steps. Familiar to botanising Nats, **moss campion** (*Silene acaulis*) and **snow gentian** (*Gentiana nivalis*) competed with the 'specials', **merendera** (*M. pyrenaica*) and **edelweiss** (*Leontopodium alpinum*) too.

The speaker's favourite Pyrenean flower, **ramonda** (*R. myconi*), and **dark red helleborine** (*Epipactis atrorubens*) were found in the Monte Perdido area on the Spanish side. There were **pine**, **fir** and **beech** covered slopes, mountain meadows, blue lochs and **white admiral** and **marbled skipper butterflies** feeding on the nectar of *Adenostyles alliariae*. There was also a cracking picture of an **apollo** feeding on an **iris**.



There were no **wallcreepers** (that's a bird, by the way) near Santa Egnatia on a wet, late September trip, but there was a **smelly frog**. A **Pyrenean soft snapdragon** (*Antirrhinum molle*) was found one lunch time - non-botanist partners can be useful plant hunters! Further eastern range beauties included **marsh felwort** (*Swertia perennis*), **crocus** (*C. nudiflorus*), **Pyrenean columbine** (*Aquilegia pyrenaica*) and the rare British species - **spiked speedwell** (*Veronica spicata*), *Oxytropis halleri* and *Homogyne alpina*

Lovely non-plant images of **lizards**, a **cricket**, a **swallowtail caterpillar** and a co-operative **preying mantis** helped to complete the mountain wildlife picture. **Marmots** were

common, but were too shy to be photographed. The Nats were also duly warned that Spanish maps were somewhat fanciful!

Alban Houghton

CHRISTMAS ENTERTAINMENT

Bede Pounder 14th December

Our seasonal celebrations this year took a slightly different form from recent years. Bede had spent a lot of time and effort putting together a poetical sequence on the theme of the seasons, and this was illustrated by slides shown on Brian's twin-projector system. The poems were read by a number of 'volunteers', using torches in the darkened lecture room, while Bede coordinated the changing of the slides. Helen Blackburn read Burns, Margaret McLaren recited in the Doric and Jim Cook gave us a rendition of one of William McGonagall's best. Roma Miller, Anne Reid and two friends of Bede (on tape) read other contributions. The slides complemented the words admirably, and the whole entertainment was much enjoyed by all present, with the possible exception of the nervous volunteers! We then moved on to the generous spread of goodies provided so willingly by members, and rounded the year off in style.

Anne Reid

MEMBERS' ARTICLES

INTERESTING RECORDS 1999

After the success of this compilation in the last few years we shall be continuing the item this year, and in the future. As before, any unusual or interesting records from the local area will be most welcome, and can be submitted at any time of year. Even a single record is of interest.

Each entry is followed by the initials of the recorder

Brian Allan	BA	Jim Cook	JC
Alastair Fraser	AF	Gordon Maxwell	GM
Bob McCurley	BM	Anne Reid	AR

16th January Male **blackcap** in garden, Monifieth Feeding on peanuts Stayed around for both days of a weekend when we had snow showers AR

30th January A very sleepy queen **wasp** seen while gardening, Monifieth The day had been relatively mild and sunny, but not warm enough for the wasp to get very far - it was seen several times over the afternoon, but never more than a few feet from its previous position AR.

31st January Five **roe deer** seen in plantation at Laird's Loch, Tullybaccart GM

31st January A beautiful, warm, sunny day - ideal for building nestboxes out of doors at Barry Mill with the YOC Visited at lunchtime by the first **honeybee** and **hoverfly** (*Episyrphus balteatus*) of the season. AR.

6th February Early **small tortoiseshell butterfly** seen in Broughty Ferry JC.

11th February **Grey partridge** feeding happily in front garden, Monifieth. AF

20th February **Sparrowhawk** seen flying very low and fast across gardens on the south side of Dawson Park, Broughty Ferry Didn't see it catch anything but all the small birds remained out of sight for half an hour or so afterwards and emerged from deep cover only very gradually JC.

25th February Flock of approximately 30 **snow buntings**, also several **skylarks** singing, Beal Hill near Rait. AF

26th February A **goldcrest** was seen on the peanut feeder in the garden apparently feeding from it until displaced by a **greenfinch**. Seen on the nuts again on 2nd March, definitely pecking a peanut Is this just a new trick learned by a single bird, or has anyone else got nut-feeding goldcrests? AR.

14th March **Orange underwing moth** near small lochan near Dunkeld Also an **adder** in the same area GM.

22nd March My first butterfly of the year, a **small tortoiseshell**, seen in the Swamp Hide at Kinnordy. GM

24th March **Tawny owl** called for a short while from trees near Dawson Park, Broughty Ferry. Haven't heard one there for years JC.

25th March Two male and four female **goosanders** at Laird's Loch with a pair of **little grebes** also present. **Green woodpecker** heard GM

4th April Fine view, at St Cyrus, of **peregrine** taking, then losing, a **pigeon** Held by peregrine by one leg, it dropped pigeon, which flew onto cliffs The peregrine returned but the pigeon flew down to safety among bracken. GM

14th April **Buzzard** seen at Balgillo, Broughty Ferry, soaring over the last open ground on this stretch of road BA.

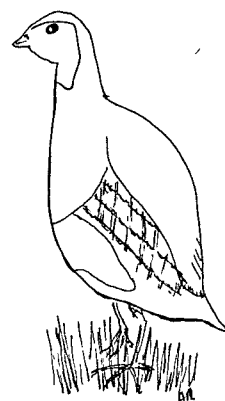
21st April Two **lizards**, one **fox** and six **roe deer** at Craig a Barns, Dunkeld. GM.

1st May **Blue tits** began nest building in our garden nest box (Dundee) BM.

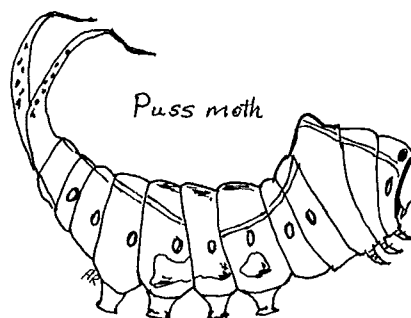
2nd May Two **golden eagles** high up on walk to Corrie Fee, Glendoll. **Newts** and **frogs** in corrie pools, one **lizard** and **red deer** in corrie and **peregrine** overhead. GM.

3rd May First **swifts** seen flying around Brechin Cathedral. BM

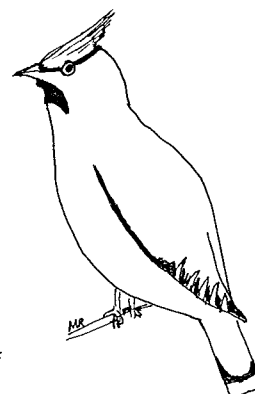
15th May Adult **spoonbill** visits the Lurgies, Montrose Basin - a continental overshoot. BM



- 16th May** Fowlsheugh Clump of white **thrift** on rock below village Many **green veined white** butterflies seen. GM
- 17th May** A **hobby** at Maryton, Montrose. An uncommon passage migrant. BM
- 19th May** On walk upriver from Dunkeld, total of six **orange tip butterflies** seen Nice **chicken of the woods** fungi on **Neil Gow's oak**. GM.
- 23rd May** On banks of the Tay near Stanley. Twelve **orange tips** in the Campsie Linn area. Also six **lizards** on one mossy tree stump in the same area This is the most I've seen in one location GM (see article on p 32)
- 20th May** An unwelcome discovery in the back garden - one **New Zealand flatworm**, about 2.5m long and creamy-coloured. GM
- 1st June** **Mute swans** bred successfully for the first time on Barry Buddon Five **cygnets** hatched BM.
- 5th June** 'Our' nest-box **bluetits** fledged five young. BM
- 12th June** A male **bullfinch** visited the garden briefly, feeding on **forget-me-not seeds**, I think! Only the second one seen in the garden in eight years, though they are seen fairly frequently around the Dighty nearby. AR
- 20th June** About 40 stems of **yellow birds nest** (*Monotropa hypopitys*) near Kinshaldy car park among conifers GM
- 24th June** **Large red damselflies** near Laird's Loch; the first time I've seen them there. GM
- 25th June** **Peregrine** seen flashing past the Discovery Centre, Dundee waterfront JC.
- 5th July** Saw a **kestrel** hovering directly over the Kingsway, near Caird Park JC.
- 7th July** **Puss moth** caterpillars on willows near Laird's Loch - finally an opportunity to photograph this unusual beast after much searching. Also two nice **sexton beetles** near the loch. GM.
- 10th July** A **horntail** or **woodwasp** seen laying eggs in cut **pine logs**, Montreathtmont Forest BM
- 24th July** My first sighting of **dwarf cornel** on Jock's Road Not in flower, I must return! BM.
- 25th July** Near Mill Dam, Dunkeld. Caterpillars of **pebble prominent** and **poplar hawk moths** on young **willow** Pair of **large emerald moths** on ferns near loch Same day at Dowally, one fly with unusual green metallic eyes I have a slide - can any "fly person" identify it please? GM
- 8th August** **Sparrowhawk** plucking small bird on roof opposite our house, Monifieth. AF
- 8th August** Four **peacock butterflies** seen on Earlsall reserve area; also one **painted lady** (not many about this year). GM.
- 11th August** **Water shrew** hunting for food in the grass at the edge of the path near the bridge over the mouth of the Dighty, Monifieth AR
- 13th August** **Peacock butterfly** seen on Barry Buddon - the first one I have seen in Angus. BM
- 18th August** **Common lizard** reported by a friend in a Tayport garden Does anyone know of any other records for the same area and for Tentsmuir/Kinshaldy? GM.
- 22nd August** **Buzzard** soaring over fields between Monifieth and main Arbroath road Sightings near built-up areas are increasing (see also 14th April). AR.
- 22nd August** **Large Aeshna dragonflies** in Corrie Fee, Glendoll, possibly *A. caerulea*. A total of ten seen on way back to car park GM
- 28th August** One **black swan** amongst the large flock of **mute swans** at the mouth of the Dighty, Monifieth. Still there a week later Presumably an escape from a wildlife collection since it is a native of Australia! AR.
- 29th August** Two **black terns** at Kinnaber, Montrose, on a YOC outing. Spotted by Mary Reid BM
- 5th September** Two magnificent **peacock butterflies** in one day One at Vane Farm in central Fife and the other at Broughty Ferry JC.
- 15th September** **Peacock butterfly** seen by friend in a St Mary's garden, Dundee. GM
- 19th September** **Buzzard** being mobbed by crow, over garden, Monifieth AF.
- 27th September** A magnificent **red-crested pochard** on Monikie Reservoir. Arrived in eclipse, but was in full plumage by the time it left a few weeks later. BM



- 2nd October** Superb view of **water rail** preening and feeding at Kinnordy Loch. AF
- 7th October** **Black swan** in Broughty Harbour - either an escape or a very confused and lost bird
Possibly the same one noted on 28th August, above. JC
- 10th October** A young (and naive?) **woodmouse** seen chewing on a nut in the open just after mid-day, in broad daylight, in Brownie Wood, Gauldry - most unusual! Perhaps it was very hungry and urgently needed food. It seemed not to recognise us at first but eventually scuttled into cover. JC.
- 11th October** **Red admiral** in my back garden; sunny day, but cool and breezy. GM.
- 28th October** **Smew** on Monikie North Pond - a lovely redhead (female). BM
- 2nd November** A flock of 300 **twite** seen in Loch of Lintrathen area. BM.
- 3rd November** Dramatic incident seen from the hide at Guardbridge. A **hawk or falcon** captured a **kingfisher** immediately in front of the hide, then fortunately (for the kingfisher, at least) let it go. Not seeing the capture myself, there was much discussion by those present as to which raptor was involved; consensus favoured the sparrowhawk. The kingfisher flew off in a northerly direction, seemingly unharmed but probably much wiser. GM
- 6th November** Not so fortunate was the male **mallard** seen being carried along the foreshore at Tentsmuir, near Tayport. The culprit on this occasion was a rather large tabby **cat**, which managed to cross the burn with its dead prey held firmly by the neck. GM.
- 6th November** On the way home from the outing to the Eden Estuary, a **sparrowhawk** swooped low over the road in front of us, near Tayport. JC
- 8th November** Late at night saw a **heron** walking around on the Forgan roundabout, in Fife, over the Tay road bridge. Stopped and watched it for a few minutes. It was clearly searching for something (**earthworms**?) but I didn't see it pick up anything. JC
- 8th November** Six **waxwings** at Hawkhill, Dundee. BM
- 14th November** More **waxwings**, fourteen this time, at Sleepyhillocks Cemetery, Montrose. Signs of a waxwing eruption year? BM.
- 12th December** Adult **otter** with two cubs crossing frozen patch in front of Gullery Hide, Loch of Kinnordy. Also drake **mandarin** showing well from same hide. AF.



STONE THE CROWS

24th January

"What's that **rook** doing?" queried Peter. "It seems to be pecking the one on the ground." We both turned our binoculars onto it. One rook was lying on its side in the short sandy grass about 10 metres in front of us and the other was standing almost directly over it. But it was pecking at something else, not the bird on the ground. As they moved we could see what they were interested in, one half of an empty **pod razor** shell. The recumbent rook flapped up onto its feet, still grasping its prize, and the other one lost interest and hopped away. It was as if they'd been playing with it.

Peter Ellis and I had drawn up in the St Andrews Golf Museum carpark, looking out to sea, and the normally-wary rooks were remarkably tame. They hadn't even hopped off when walkers passed close by. The birds had appeared soon after our arrival and were almost as interested in our lunches as we were - but not quite! They'd sat on the low wall directly in front and given us a wonderful close display of the subtle green and purple iridescence of their coal-black feathers. Superb!

The bird on the sand in front of us again rolled over and, with flaps of its partially-opened wings, lay comfortably on its side. It juggled the shell from foot to foot and reached down to peck at it with its beak. The bird wasn't feeding, we became convinced that it was playing with the shell. After about five minutes of this performance the rook seemed to lose interest, hopped up, and flapped away, leaving the razor shell lying.

Has anyone else ever seen a bird roll over on its side and juggle an object with its feet? Is this unusual behaviour in rooks? Do they play very often? I'd be very interested to hear from anyone and learn more.

Jim Cook

WHAT EATS YOUR PEANUTS?

Most of us are familiar with **tits**, **sparrows** and **greenfinches** doing acrobatics on the peanut feeders in our gardens, with occasional **starlings** joining in, or even taking over. However by watching carefully you might be surprised by the number of species which feed on peanuts. Increasingly common in recent years have been **siskins**. These pretty yellow and green finches are noticeably smaller than the ubiquitous, in my garden at least, greenfinches, and identification can be helped by their habit of usually feeding head-down. Occasionally a **chaffinch** learns the trick of hanging on the basic wire feeder, but it seems only to be individual birds which master the technique. The other chaffinches, in common with **robins** and **dunnocks** are content to pick up any dropped pieces from the ground underneath the feeder. All these species will eat direct from a feeder if they can perch on a branch beside it, or on the mesh base of the cage-like squirrel-proof models.

Over the last two years I have started noticing less likely birds eating the peanuts in my garden. Winter **blackcaps** seem to prefer fat-based birdcake when it is available, but have been observed on several occasions eating nuts while hanging on to the feeder. They do not usually get long to grab a snack before a more aggressive customer arrives and they retreat to the safety of a nearby shrub. Most amazing of all last winter was the **goldcrest** which was seen twice on the nuts. The first time was on such a dull day that I was not convinced that it was eating nuts and not just searching amongst them for insect life, but on the second occasion I managed to get the binoculars trained on the bird and saw it actually pecking at them. The goldcrests are often around the conifers in the garden in the winter, but normally don't go on the bird table, let alone the nuts.

In my parents' garden, in England, I have seen **long tailed tits**, **great spotted woodpecker** and **nuthatches** feeding regularly on peanuts, all well known nut feeders. More surprisingly, at Vane Farm in March there were two **goldfinches** persistently eating the peanuts from the feeders in front of the visitor centre. During the time we were there they did not visit the nearby seed feeders, which contain what is meant to be their preferred food.

It is well known that **squirrels** will raid an unprotected nut feeder, and a number of "squirrel proof" designs can be bought or constructed. In addition a **rat** was seen, in broad daylight, climbing a tree trunk with a nut feeder mounted on the top, at Montrose Basin Visitor Centre, and feeding freely through the wire mesh with its long incisors. It is also likely that other rodents raid nuts.

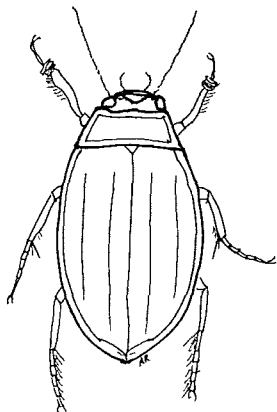
This year I have also seen a **greenfinch** eating unopened **rowan** flower buds, **sparrows** eating **flowering currant** flowers, or drinking the nectar, I'm not sure which, and **blackbirds** eating **cotoneaster** flowers, and collecting them to feed to their attendant, fledged young. These parts of the plant are high in protein and energy and obviously help to supplement the diet of these birds in the spring. So keep your eyes open and you may see some interesting bird behaviour from the comfort of your armchair!

Anne Reid

FLEXIBLE ICE

31st January

It had been frosty the night before and the ponds all carried a skin of ice but the wind had risen before the sun. By the time Gordon, Davie, Doug and I reached Tentsmuir Forest the near-gale beat heavily on the tree tops, enlivened by occasional furious gusts. In the late morning we stopped by a frozen pond, a small fire pond about 20 metres by 30 metres, completely surrounded by 15-20 metre conifers. We could see some **great diving beetles** swimming about below the ice and Davie spotted a small **fish** in among the submerged vegetation. A few leaves of **pondweed** (*Potamogeton* sp.) were frozen into the surface.



We noticed that every so often the ice seemed to move about 10cm back and forth, over a period of about 15 seconds, along the length of the pond. But then we realised that this was impossible. The pond surface was frozen into a continuous skin from bank to bank and it was firmly fixed to the vegetation in front of us. Gradually it dawned on us that it was the water underneath the ice that was moving - but what could be the cause?

The movement happened only when there was an especially furious gust of wind. What we think was happening - and it's only a guess - was that either the wind was pressing down on the ice at one end of the pond, or perhaps its speed was lowering the pressure and lifting the ice slightly. It appeared to be only the top layer of the water, about 20cm or so, that was moving, as shown by the waving of the pondweed. By the time that this had been worked out we tried to watch for ice movement using reflections of the trees on the opposite bank, but there were no more gusts and we didn't see any movement of the ice. We broke the ice to measure its thickness - approximately 1cm. Has anyone else seen evidence of the flexing of ice under wind loading?

Jim Cook

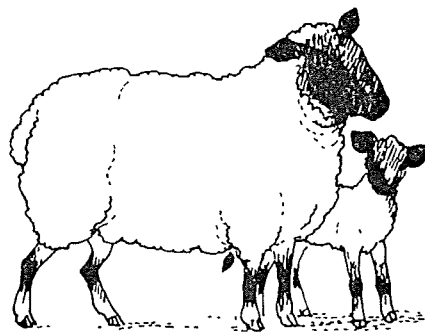
NORMANS LAW

5th February

On a cold, sunny, but very blowy day three intrepid Nats set out to check out Normans Law for the outing in the summer. It had been blowing a full gale the previous day, but the wind had moderated enough that we hoped to be able to keep our footing on the summit. Our drive through the nearby countryside revealed a number of clumps of **snowdrops** in full flower, all well naturalised, and three very early **celandine** flowers on the sheltered bank of the small burn which flows through Brunton.

Our ascent of Normans Law was initially by a slightly roundabout route, not the one that will be used in the summer. This is why we always check, before we have a bus full of Nats to mislead! The summit was indeed very windy, but the views were spectacular. The tops of the mountains to the north were snow capped and clearly visible, including Schiehallion, Ben Lawers and Ben Vrackie, and Arthur's Seat and the Pentlands were visible to the south. As we returned towards the road we made a diversion to look at a pond while Doug looked at some rocks. Bede looked up to see Doug approaching us with a whole flock of **sheep** following him across the field. The immediate photo opportunity was missed, but the sheep were very sure that we had something that they wanted, so Bede did get photos in the end.

We had some time to spare so went to look at Lindores Loch, near Newburgh. The wind had discouraged many birds, but we did see two **great crested grebes**, a **dabchick**, **coots**, **mallard** and **goldeneye**. We retreated to the less exposed hamlet of Abdie, which has a Pictish stone at the ruined church. It had been subsequently reused as a sundial and had all the markings carved over the original Pictish ones. To add insult to injury there was also a benchmark very clearly incised in the centre. We then admired the very large **yew** trees in the churchyard, found several **daisies** in flower and looked at the variety of ancient gravestones. Just outside the gate was a **primrose** with two flowers open and below the roadside wall there was a **variegated red dead-nettle** and **cow parsley**, also both in flower. To make this early February day seem even more springlike there were **lambs** gambolling in the field opposite the church.



Anne Reid

CODIUM

4th March

During a visit along the shoreline north from Boddin Point we came across a number of good clumps of a relatively unusual seaweed, *Codium fragile*, in rockpools near the low tide mark at about NO 721541, just south of Usan. It requires uncontaminated seawater, not affected by river inflows or pollution, and sheltered conditions since its fat rounded dark green stalks are easily damaged by wave action. Along the cliff line near Boddin, hosts of cackling **fulmars** heralded the coming spring, while out at sea bobbed rafts of **eiders** and a single beautiful **long-tailed duck**.

Jim Cook

TWO UNUSUAL VISITORS

We were enjoying an afternoon cup of tea and a meringue, also enjoying looking out at my garden, when, all of a sudden, there was an amazingly loud thud. Wynne and I both jumped, and at the same time a huge bird fell to the ground and landed a few feet from the window. There, lying in the corner of a low wall and a cotoneaster bush was a magnificent bird of prey - a female **sparrowhawk**. The poor soul had flown into the upstairs bedroom window, which is double glazed and strong. I rushed outside, but as I got to the door I thought I'd better open the door quietly as it opens outwards. There was this wonderfully handsome bird lying with her wings half stretched out, barred tail spread in a fan. I whispered "it's all right" and she looked at me with her piercing eye, which had a beautiful yellow circle round it. Then I saw her lovely chestnut head and the formidable beak. She did not move, being completely winded from her collision. I decided to leave well alone and check that my two cats, Sam and Joe, were in their usual sleeping spots in the house. They were both snoozing away in the sun, I am sure that they would have been frightened to go too close. Wynne was meantime keeping a watch from the window.

Ten minutes later the sparrowhawk was still in the same position and I was beginning to wonder if she had broken her wing, so I decided to phone the RSPB. However, being without my reading specs, I phoned the RSSPCC - they were very kind and said they were frequently phoned by mistake as they were below RSPB in the phone book - could I not take a towel, throw it over the bird and see if its wings were damaged? I said "You should see the hooked beak". I thanked them and went back to the door to check. It was now 20 minutes since the thud.

As I stood looking at her she stretched her neck and moved a leg tentatively forward - a very yellow leg and foot with menacing looking claws. I waited a wee while longer and went to watch from the window and finish my cup of tea. We were spellbound watching as she seemed to check herself over. Another 20 minutes later she began stretching one wing at a time, then lifting her body weight onto her yellow legs with eyes now alert. Slowly she flapped her wings and rose up, flying low and then rising. Our unexpected visitor was off, recovered from her ordeal.

The strange thing is that a few days later I was again sitting at the dining room table when a handsome male sparrowhawk sat on the fence about ten feet from me. He had a beautiful grey/blue head and was sitting well up to show his speckled pinky yellow (rufous) chest. Had he come to see where his mate had nearly come a cropper?

Margaret McLaren

(Note The SSPCA have experience in caring for injured birds and animals, and would have been the appropriate people to phone if the bird had not recovered unaided. Ed)

EXTRA EVENING OUTINGS

11th May to 22nd June

Last spring and early summer a number of unofficial evening meetings were organised to study our local wildlife, plants particularly but by no means exclusively. They followed on from the meetings organised by Dundee College staff the previous year but were open and free to all DNS members and other interested people. The idea was to have a standard weekly meeting time and place, to pick up those without transport, and then go to a local site of known interest. The venues and dates chosen, to fit around the official outings, were:

Tuesday 11th May	Carlingheugh Bay and Seaton Den, for seaside species
Thursday 20th May	Balmerino, Fife, for the interesting wood, and hybrid primroses .
Tuesday 25th May	Ceres Den, Fife, for a good range of spring woodland plants
Tuesday 1st June	Carnoustie Bay, especially for sea pea , then Craigmill Den
Thursday 10th June	Boddin Point, for the number of specialities in the locality.
Tuesday 22nd June	Stormont Loch, but changed at short notice to Tentsmuir

The outings turned out to be popular, averaging about 15 or so participants but reaching a peak of 41, and served to encourage a closer look at the rich wildlife of our area. We found and saw an excellent range of plants and birds, insects and molluscs and many more. Barbara Hogarth and

Gordon Maxwell led the outing on 10th June and Gordon took the last one over to Tentsmuir, particularly to see **coralroot orchid** (*Corallorhiza trifida*)

What did the participants think? Did you enjoy the outings? Did you learn much? Would you be interested in another series of similar excursions next year? When is the best time for you? Any suggestions for suitable venues? We'd be very interested to hear your comments and views Please speak to any member of the Council.

Jim Cook

ACROSS THE SEA TO IRELAND

While watching, from the walls of St Andrews castle, some groups of seabirds disporting on a heavy sea a long way out across the bay, I was reminded of the richness of the marine wildlife here on the east coast. Rafts of black dots were rising and falling on the swell, only visible for short periods even when making short flight hops along the troughs between the rollers. Some, rather black and heavily built, I felt sure were juvenile male **eiders**, but flickers of white on some of the faster flyers showed that some at least were probably **guillemots**. Others, which were very black, flew about in little groups in which dark brown shapes could be discerned and appeared to be **common scoters**. That is always the trouble with watching birds out to sea, they are nearly always just too far away to be seen clearly. What a welcome change it would be to get a chance of a short sea trip to get right in amongst them.

Just such a chance came a couple of years ago when I joined a church weekend trip to Ulster. I enjoy travelling, and while I was quite looking forward to the arrival, I was certainly intending to travel in hope, hoping, in fact, to see some of the more exotic species that west coast naturalists brag about. Thoughts of **pilot whales** whetted the appetite, or **porpoises** and **dolphins**, and maybe even a **basking shark**. I expected to see lots of seabirds, since by that time most of the local breeding sites such as Ailsa Craig with its huge flocks of **gannets** should have been fully occupied, and because of the relative lateness of the spring in the far north, birds heading towards summer homes in the high arctic could still be moving through our latitudes. However, once we were under way through and beyond Loch Ryan, I began to get the feeling that this was not to be a journey that would live long in the memory, and a few words of Stanley Holloway began to surface from some of the less accessible recesses in my memory.

"They didn't think much of the seaside,
The waves, they were dribbling and small
There were no wrecks, and nobody drowned;
In fact; nowt to laugh at, at all "

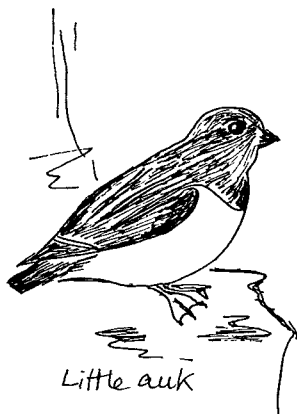
Apart from a few **black headed gulls**, some wet, bedraggled, shiny black **cormorants** and one or two **gannets** from Ailsa Craig, nothing of interest crossed our path. **Black guillemots**, almost unknown on our east coast but common on the west, were not to be seen, and **Manx shearwaters** from the enormous colony on Rhum had shunned these waters that day. **Great northern** and **red-throated divers** heading for Iceland and Greenland had presumably already 'headed', as had **long-tailed ducks**, those diminutive, dainty creatures that spend the summer months in millions off south Greenland. Not even an **arctic tern** passed us by, even though some stragglers are always a little late in reaching our waters after their epic trips from as far away as the south Atlantic pack ice.

I was just about to accept defeat, when I noticed a small dot flying above the horizon, keeping pace with the ship. It rose and fell in a sinuous progression, as though being tugged like a piece of paper on the tail of a kite. It dropped below the horizon, making it difficult to pick out in the fading light, but then rose again and became more distinct. It was obviously a bird, and one with short, rapidly flapping wings which made the dot appear to flicker. It was soon apparent that it was becoming closer and therefore more distinct, while still keeping abreast of the ship, so it must have been moving over the water faster than the ship which, having a pair of large gas turbines as power sources, was certainly no laggard. The dot, now more like a small blob, then began tantalisingly to recede, approach, and then recede again. It was following a zig-zag path and appeared to be taunting me, always making it not quite



possible to identify with certainty. Eventually it relented and flew steadily towards the ship, and at long last gave a good enough view to show a dumpy shape; black on top, white below. Got you! A **puffin**! Why had I not thought of that before? But what a disappointment. I could have got a much better view of one of these little 'whirrigigs' from the cliffs at Auchmithie, and with much less expense and bother.

At length, I put my monocular down and continued to observe the creature with half interest and with the naked eye. Suddenly, in a final taunt, it banked and began to turn to starboard, presenting a good clear view of the bill, just before the long approach 'zig' turned into a receding 'zag'



along which the bird flew on whirring wings, soon to vanish into the watery haze. In a split second, I was able to see that the bill was not the large brightly coloured 'conk' of a puffin, but something much smaller and black. My puffin was nothing of the sort: it was in fact a **little auk**, a species only rarely seen from shore, and then usually because the bird is ill, having dived into water deceptively calmed by oil.

Despite the apparent taunts, I felt a great respect for that tiny creature. Here it was, flying an erratic course, yet keeping pace with a gas turbine powered ship, despite having only a few **shrimps** in its belly as fuel. Also, as a little auk, it would have had north Greenland or Spitzbergen in mind as its final destination, these being the only homes little auks know, rather than relatively close at hand Belfast. However, arctic waters really are a long way from the Irish Sea, and I began to wonder if sufficient time were available to overcome the obstacles of such a formidable journey. But I need not have feared. It is known that lots of small birds can fly at more than 50mph, so even if the little auk can manage only 40mph, it could cover about 240 miles in six hours without stops. Now obviously, it would need to stop on the water for rest and feeding, but if we allow it to spend a mere one eighth of its journey time in flight, we see that only two to three weeks would give more than enough time to reach a breeding cliff in the high arctic, to do whatever little auks have to do to find a mate and start producing more little auks.

If you should ever find yourself going across the sea to Ireland, keep a look-out for one of these small but mighty wonders, please give it a wave and pass on my regards. This one made my day!

Bede Pounder

LIZARDS' PARADISE

16th May

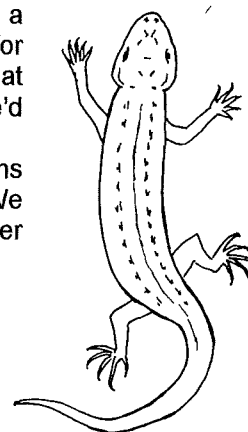
They were on an old moss-covered stump standing proud of a steep **woodrush**-infested slope directly above the Tay. The four of us were on the top of the western bank, facing roughly south-east, only about 1km north of Campsie Linn, near Stanley. We'd been sitting having lunch when Gordon picked out a movement in the vegetation on the stump below. It was a fine specimen of a **common lizard** (*Lacerta viridis*) but there seemed to be something odd about it. We all moved over carefully for a closer look and then realised what the matter was. There was another lizard, but very well camouflaged, skulking and coiling close-by. Then our eyes, becoming accustomed to lizard shapes, picked out yet another, both of them smaller and darker. After a few minutes we realised what was going on. Here was a large and healthy female basking in the sun with two smaller and much more active suitors.

They spent ten minutes curling and rustling through the fine dry grasses and ferns and piles of succulent green mosses. Suddenly Davie said "There's another!" and Gordon, who was watching through binoculars, said "No, another two!" and finally we all chorused "No, three more!". We were able to pick out, though with difficulty, the very well-camouflaged bodies of a total of six lizards, two larger females for definite and, probably, four males. The lizards' colours and markings blended in with the environment so well that they were extremely difficult to see, even from only a few metres away. The easiest way to pick the animals out was to use binoculars to search for the tail, which they seemed to forget about, and then look for the rest, particularly the distinctive shape of the head. It

was obviously an ideal locality for lizards, a warm and sunny bank with a scattering of trees, open areas for basking but with plenty of vegetation for cover, water nearby and lots of insects for food. I've never seen so many at one time in Scotland, though if we hadn't stopped there for lunch I doubt if we'd have seen any lizards at all.

Gordon slowly crept in closer and managed to take a few photographs but then someone moved quickly and they all disappeared in a flash. We packed up to move on but Davie stayed behind and was rewarded with further good views of these fascinating reptiles

Jim Cook



RUDERAL AWAKENINGS IN THE CITY

Since retiring I have had more time for naturalising. This has meant that, as well as occasional trips to more distant and exotic locations, I have also paid more careful attention to the local environment. When I mentioned this in conversation with an academic botanist friend, he used the term 'ruderal' with which I was unfamiliar. Not wanting to appear ignorant, I looked it up. The dictionary yielded: "ruderal - growing on or among stone rubbish, peculiar to rubbish heaps - from the Latin, rudus, broken stone." This probably also accounts for the term "rude shelter", though as a small boy, coming across it in adventure yarns, I wondered whether it referred to graffitized bus stops or public conveniences.

I was brought up on farms in Devon and Cornwall and from an early age knew which plants were considered intolerable weeds. Since then, of course, intensive cultivation and weedkiller application have been so effective that we miss the old displays of **cornflowers**, **marigolds** and **poppies**, and get quite excited when we see them spring up again in overlooked patches. **Dockens**, **nettles**, **groundsel**, **chickweed**, **fat hen** and **thistles**, however, never seem to have achieved this rarity re-evaluation. Playing after school on the old style village dump, the first inklings of individual plant habitat requirements dawned - **mugwort**, **mullein**, **goldenrod**, **deadly nightshade** and **Indian balsam** seemed to grow there and nowhere else in the wild. I now realise that the builders' waste and ashes discarded there had altered the normal soil type, from rather acidic Devonian sandstone, clay and peat to more alkaline and calcareous conditions. In the late 1940s we were also amazed, on our trips to the cities, to see the wartime bomb sites quickly become covered in **buddleia** and **rosebay willowherb**, otherwise uncommon then.

Nearer home, this past summer, I have been making attempts to see some of the 'alpine' flora of Scotland. Apart from the higher altitudes, most of the attractive and rare species also seem to prefer calcareous soils. Among many other plants to which I had not previously paid much attention, I hoped to find (and in due course did) **northern fleabane** (*Erigeron borealis*). In preparation I had read up about these plants and their close relatives so that I could distinguish between them. Anyhow, as I was walking home from Dundee city centre in June I spotted a plant I had never seen before. It was growing on a rubble strewn patch of waste ground in Marketgait, and looked initially like a weedy **michaelmas daisy**, just a garden escape. Then I decided *Erigeron* for sure, but what species? It was growing with other locally common ruderals including **buddleia**, **wall lettuce**, **hemp nettle** and **sticky groundsel**.

On reaching home I consulted Francis Rose's 'Wild Flower Key' and decided my new find was **blue fleabane**, *Erigeron acer*. The blue was barely noticeable without close inspection of the small flowers, nevertheless this distinguished it from one possible alternative, **Canadian fleabane**, *Conyza canadensis*, which has white flowers. The Flora of Angus only gave old records for **blue fleabane** on the Sands of Barry "in the greatest abundance" in the early nineteenth century and again at Elliot station in 1896. On the next Nats excursion I told Barbara Hogarth and Richard Brinklow of my discovery and they recalled that there had been a more recent sighting of blue fleabane near the Tay railway bridge.

Blue fleabane appears to be a tough little plant, in my limited experience. The original plant I took from Marketgate is still flourishing in a tub of peat and old mortar mixture in my garden. There, on a hot day in August, I noticed the seed clocks were blowing off. Seedlings have now sprung up all around, so it's a wonder there isn't more of it about.

I know that many naturalists are rather sniffily dismissive or even quite fearful of these alien and casual invaders, but I rather admire their adventurousness. Coming upon them in my state of only recently improved ignorance, I have no way of telling that they are out of place. As for the conservationists' arguments that some of our old-established rarities are barely hanging on now and may be overwhelmed by new competition - hasn't that always been the way in Nature? So, with maybe some reservations, I look forward to seeing what blows in next; accidental escapes, inadvertent transportation and global warming are sure to bring something different to test our powers of observation.

Les Tucker

YOC WORKING PARTY - CARSEGOWNIEMUIR

27th June

The trip was to the quarry where we did some important work with the trees. This included slackening the rabbit guards and trampling the tall **willowherb** from around the trees. It was raining heavily, and on top of that water was dripping from the trees and the willowherb. Pfennig was with us and we all got very, very wet. After about an hour we gave up and changed into dry clothes before retreating to Montrose Basin Visitor Centre.

In the Basin we saw a creche of **eider** ducklings and a family of **shelduck** (also with ducklings). There was a **brown rat** eating from the feeder on the tree trunk. The other bird table had a rat-proof collar on it. At the feeders, apart from the rat, we saw **great tits**, **house sparrows**, **chaffinches** and **collared doves**. There were lots of baby **rabbits**.

Andrew Ferguson and Mary Reid (both age 11)

Editor's note: At least the heavy rain had been forecast so we all had a complete change of clothes with us. The children also learned that waterproof trousers need to be on the outside of wellies in such monsoon conditions - the socks were much more than just damp!

BARRY BUDDON OPEN DAY

15th August

Forty enthusiasts turned out for the ever popular outing to Barry Buddon. This one was, in my opinion, the best outing ever, and there have been many good ones over the past eleven years.



On the birding front, 56 species were recorded with the highlights being two **spotted redshanks**, a superb **wood sandpiper**, seven **crossbills**, a **green woodpecker**, **wheatears**, a **whinchat** and a **sparrowhawk**. Dragonfly enthusiasts were catered for with **golden ringed**, **black darter**, and **common darter dragonflies**, plus **blue tailed**, **common blue** and **emerald green damselflies**. Eight species of **butterflies** were also recorded.

The botanists, ably led by Jim Cook, also had a field day. I personally had four 'lifers' with **marsh speedwell**, **purging flax**, **purple loosestrife** and **asparagus** - a definite escape! In addition, my favourite **grass of Parnassus** was growing in profusion at Buddon Burn.

It was a day catering for the tastes of all those present, proving once again that Barry Buddon is a natural history paradise.

Bob McCurley

QUARRY FOSSILS

August

At Carsegowriemuir Quarry we go fossil hunting. There are two main types of fossil that we find. They are *Psilophyton* and *Parka*. *Psilophyton* is one of the earliest plants. *Parka* used to be called "**puddock stane**" because it looked like **frog spawn** and the old name for frog was puddock.

The first time we went we sat in the sun for about an hour and a half, banging and smashing. I didn't know what I was looking for so I only found a tiny piece of *Psilophyton* which is more common than the *Parka*. The last time I went I found at least twenty pieces of rock with *Psilophyton* in them but we couldn't carry them all home. We only took the good pieces home with us. We also found a couple of pieces of rock that had *Parka* in them. We took all of them home because the *Parka* is less common than the *Psilophyton*.

Christine Reid (age 9)

SQUIRREL V FUNGUS

29th August

We were walking along the bank of the Tay just north of Dunkeld when a movement on the ground caught our eyes. But it was too far away at first even for binoculars. "It's a **rabbit**", said someone; "Nah, that's not a rabbit!" muttered another voice. As we got closer we began to make out the elongated shape. "It's a **stoat**", I ventured. No, it wasn't that either. With the dappled light on the ground it was tricky to pick out. Eventually we could all see that it was a **squirrel** and a red one at that. But what was it doing on the ground?

As we crept closer still the squirrel suddenly moved and, carrying a large dark rounded object, raced straight up the nearest tree. The squirrel balanced ten metres up in the fork of the large and handsome **beech**. It didn't pay us any attention. The animal was concentrating on the object in its paws. Staring up from below, we could see the squirrel was chewing on some flattened dark object. But what was it? We moved round and round to try to get a better view but branches and the strong sun combined to make a clear view very difficult. Gordon said "I think it's a **fungus**". "But it's very dark" said Doug. "Yea, I think it's a fungus" agreed Davie. Eventually the squirrel moved and we could see the closely-spaced white gills underneath. It was probably a *Russula*, but of an unknown species. Have you ever seen squirrels eating fungi?

Jim Cook

A CLOSE ENCOUNTER OF AN UNNATURAL KIND!

A strange and (to me) inexplicable example of animal behaviour was observed late one evening at the end of September when driving along the Arbroath to Letham road about 11.30 pm. Driving on full headlights I had the vague impression of something big(ish) crossing the road about two hundred yards ahead. "A big black cat" I thought, but no, this was neither black nor a cat and as I approached slowly I realised it was a **fox**, but behaving in a very strange manner. I stopped to watch for a minute or two and saw it was 'walking' unhurriedly back and forth across the road while apparently studying the road surface intently. Other than the occasional glance in my direction it showed no interest whatever in me or the car, so much so that I was able to move forward slowly for a closer look at what was going on. Finally I stopped at a distance of no more than twenty feet or so and I was able to see that the fox was in fact following a **field mouse** backwards and forwards as the poor creature tried in vain to escape. This was in the full headlights of the car, with the engine running but the fox still showed no interest in me at all. It could not be described as chasing the mouse, it was more as if it was 'escorting' it to and fro across the road, head down and ears pointed in concentration as it considered the futile attempts of the mouse to out-run it. After four or five passes like this (and I don't know how long it had been going on before I saw it) the fox eventually reached down and casually picked up the mouse and strolled off into the grass verge without a single look in my direction, no doubt to enjoy its snack!



The whole episode was so casual on the part of the fox that I could hardly believe I had seen it. Was the fox enjoying tormenting the mouse in this fashion, or was it genuinely curious about its behaviour? I must confess to shouting at it as I drove away!!

Doug Palmer

CLOSE ENCOUNTERS ON A FUNGUS FORAY

or

The Hound of Kinshaldy

It seemed a good idea on this bright but windy day in late September, to nip across to Kinshaldy, where, hopefully, the local fungi would be making a good show after the recent rainfall. I ticked off the usual requisites, flask, food, notebook, mushroom book and camera

On arrival at Kinshaldy I headed north, towards Tayport, where there are good areas of **birch**, **alder** and **willow** in damp areas among the dunes. En route a good selection of **fungi** soon showed up. **Russulas** were plentiful among the conifers, and I spent some time trying to identify them, with varying success. One noteworthy species, beside **Scots pine**, was *Sarcodon imbricatum*, a "hedgehog-type" fungus with spines below the cap rather than the normal gills, apparently rare in Britain but more common in Scotland. On reaching the **birch/willow** area another unusual species showed up. *Helvella lacunosa* is a greyish black, contorted-looking fungus which bears no resemblance to most people's idea of a mushroom

It was just at this point, after bending and stretching a couple of hundred times, that I began to feel the first pangs of hunger creep up on me. I chose a nice wee dell in the dunes, sheltered from the wind and containing an attractive stand of birch and willow.



I'd just got organised, and had the first sandwich out (boiled ham, no less), when, from nowhere, appeared a rather large **boxer** (canine variety) which made straight for me. It was then that I made my first mistake. "Hello doggie" I said, and broke off a bit of my sandwich. I swear that the morsel never touched the sides of its throat as it went down. I soon realised that this wasn't such a "nice doggie" at all. It had spotted the remainder of my piece in my other hand: a quick lunge, an audible snap of the teeth, and it was gone. I wiggled my hand, just to make sure that all the fingers were still there. I then noticed it eyeing the remaining sandwich in the box so I snapped the lid on just before

its muzzle got there. "Away you go, you bad mugger" (or words to that effect) I shouted. Just then a youngster of about 12 appeared and called the hound, which obediently ran off, without so much as a thank you. The distinct impression was left that the beast had been at this ploy before and that it was off to find another sucker like myself among the dunes. So, be warned, if you're down Tentsmuir way and you see any suspicious looking boxers, keep a tight grip on the sandwiches.

Gordon Maxwell

OCTOBER ODYSSEY

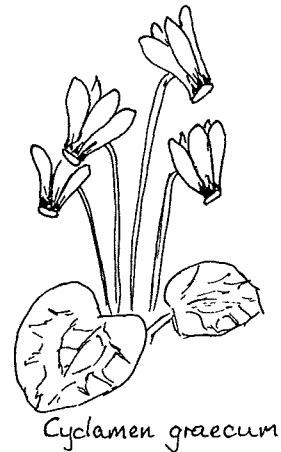
Four of us went roaming around Greece last autumn. Marjory and Doug had never been there and wanted to see anything and everything, Brian, familiar with Greece, opted for the driving, and did so, magnificently. Our aim was to see autumn flowering bulbous plants, some of which I had seen on a previous visit, so the route was planned accordingly. Of the plants found, **colchicums** and **sternbergias** both look like large **crocuses**, but all three belong to separate botanical families with structural differences.

From Athens, we headed east along the Attica coast to Cape Sounion, and found the first golden **sternbergias** and the small spikes of **autumn squill**, *Scilla autumnalis*. We photographed them both, little knowing that we would see many more in the next few days. Two girls were walking along the cliffs, stooping to pick what we suspected might be **cyclamen**, and on meeting up, they showed us a bag full of the little pink heads, which would all be dead by nightfall. They were so

happy and friendly it seemed churlish to mention that they shouldn't have been picking them, but they had pretty well stripped the cliff-top of *Cyclamen hederifolium*.

Sounion didn't oblige with one of its famous sunsets for a backdrop to the marble columns of the Temple of Poseidon but as we strolled along the shore in the warm night air to the sound of **cicadas**, and had supper outdoors watching the lights of the fishing boats bobbing on the sea, Dundee seemed a long way away

We moved northwards to the large island of Evvia with the weather changing. Fields of **cotton** and **tobacco** and autumn colours of unknown trees could only be glimpsed through thick mist on the way to Limni, a small fishing village where we hoped to find *Colchicum variegatum*, distinctive with its purple and pink chequered markings. The place where I had seen them on a previous visit was now under tarmac, EU funded, with the road going nowhere, just stopping when the money ran out. Dismay, - oh no! But we found others eventually in a clearing in the **pine** scrub, surrounded by beehives. The **bees** buzzed around us as we photographed, the day had been saved, and we had earned a picnic lunch in a small deserted cove, with *Cyclamen graecum* growing among the pebbles where we were sitting



Cyclamen graecum

Some beehives came with us on to the ferry as we went south again through torrential rain to Delphi. That night a dramatic storm blew up, vivid blue lightning flashed around the hills with sudden squalls of wind and rain, the gods were very angry indeed. But next morning dawned cloudless and still, ideal for seeing the ruins of wonderful Delphi. There were more **sternbergias** among the fallen temples and **oleanders** grew by the spring where long ago the oracle had given her words of wisdom. After a hard day at the ruins it was great to sit with a drink looking down on **olive** trees which stretched all the way to the coast at Itea some seven miles away.

On Mount Parnassus, all tracks seemed to take us to the ski runs on the bleak northern side; we couldn't find a way round to the southern flank where I had seen so many flowers before. No matter, below the tree line we found others anyway. The first stop produced two more **colchicums**, the large pink *C. boissieri*, and pale pink midget *C. lingulatum*. Next stop, *Crocus laevigatus*, cream flushed pink with purple feathering at the base. Then we took a track which climbed a hill to a large cave at the top where followers of Dionysus used to hold their orgies, so the story goes. There were two kinds of white **crocus** here, *C. boryi* and *C. hadriaticus*, and as we bounced back down the rough track, Doug, keeping his mind off the sheer drop below, spotted yet another one, dark lilac/blue, with the awful name of *C. cancellatus* ssp. *mazziaricus*, - known to us as Doug's one.

We left Delphi reluctantly and took the noisy, jolly ferry across to the Peloponnese en route for Corinth, Mycenae and Epidaurus. The summer crowds had gone from Mycenae with its tragic history. In the withered grass by the tomb of Agamemnon were drifts of *Scilla autumnalis*, more luxuriant than the tough little ones at Sounion, and lots of *Cyclamen graecum* grew in nooks and crannies at the top of the citadel. There was even a solitary flower on a **friar's cowl** in a shady corner. Best of all though was a golden carpet of yet more **sternbergias**, hundreds of them gleaming in the sunshine. (In the absence of leaves it was impossible to separate *S. lutea* from its subspecies *sicula*.)

We attempted the back roads to Epidaurus, through fields of **evening primrose** grown as a crop, but Greek maps delight in sending you into someone's back yard, and after a few dead ends we gave in and found the main road. Finally there, we climbed the 55 tiers of this ancient theatre to the top where we could hear a coin drop in the arena below, the acoustics are so good. It was late afternoon, quiet and peaceful, and for a finishing touch some *Cyclamen graecum* had wedged themselves into narrow cracks in the stone benches; the last flowers of our holiday.

Doreen Fraser

MUTE SWANS AT BARRY MILL YEAR TWO

Last year's Bulletin (page 39) featured a short article about the mobile activities of a family of mute swans reared at Barry Mill. This year their antics surpassed their previous activities and gave much amusement to members of the local community and visitors to the mill.

The adult pair returned to the mill dam on 16th February and by 31st March the pen was sitting on the old nest site. The first egg was noticed on 4th April and the first cygnet observed on 23rd May. Three days later the family proudly showed off their family of seven cygnets. The number of cygnets had reduced to six by 13th June. During this time the family would sometimes move upstream to the larger irrigation dam near Travebank.

In spite of feeding wheat to the birds, availability of natural food at the mill dam would appear to be a problem. Early in July the family disappeared and a few days later were seen on the Barry Burn running through the Carnoustie Championship golf course. They remained there during the Open, apparently enjoying all the attention. Their photos appeared in the 15th July edition of the Courier, they got a few mentions in the national press and they featured during the television coverage. After all the excitement had died down they returned back upstream to the mill only to be confronted by the obstacle that had beaten them last year - the weir just downstream from the mill bridge.

This time the adults and two of the cygnets managed to negotiate the weir and reach the mill dam. The other four cygnets went missing and were eventually reported back on the golf course! The parents would appear not to have been concerned about the shortfall in numbers of offspring - counting would seem not to be one of their strong points! Three of the cygnets were caught and ringed by myself aided by a colleague from the Tay Ringing Group and returned to the rest of the family on 29th July, the fourth cygnet eluded capture and return until 3rd August. The fifth cygnet was caught and ringed at the mill dam on 6th October, the sixth on the 13th and the cob on the 20th (the pen already carries a ring).

The latter was on one of the family 'strolls' across the fields near to the Grange of Barry. On several occasions the family would wander down to the mill looking for food. One morning I woke to find them sitting on the lawn at the mill cottage waiting for 'breakfast', and more than once they came

down for 'tea' in the orchard or along the lade, much to the delight of the visiting public.



By October, the adults had completed their moult and were encouraging the cygnets to learn to fly. One by one the cygnets eventually became airborne - not very gracefully to start with, and with the occasional crash landing. Eventually the whole family mastered the

graceful art and would fly or walk away for a few days and then return to the mill for handouts.

One day early in November they flew over the mill but did not land, disappearing over Carnoustie instead. Hopefully, we will learn of their movements over the years to come - each one carrying its own unique ring number - and perhaps the adults will return next year and delight us with their activities once more.

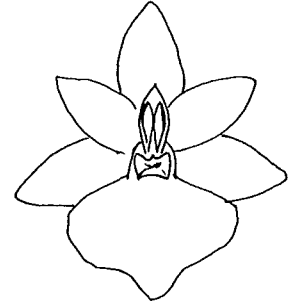
Peter Ellis

THE ORCHID TREASURES OF NORTH AND SOUTH CYPRUS

The divided island of Cyprus is in many ways a land of contrasts, not least botanically. Politically the island was divided following the Turkish invasion of the northern part of Cyprus in 1974, and it has remained so to this day. Because of international airline restrictions, a flight to North Cyprus must at least touch down on the Turkish mainland before flying on to North Cyprus. Getting to the south is much easier with direct flights from most British airports. Botanists who visit either the north or the south should stay well away from the dividing border area as the security forces from both sides, and also the United Nations peace keeping forces, do not take kindly to botanists crawling around the undergrowth close to the sensitive border areas. We have been stopped and questioned a number of times, in both the north and the south, while photographing flowers. On one occasion, when the police had pulled me out of a lovely relaxing bath after a hard day in the field, they commented, after I had explained my actions to their satisfaction: "We in the police service realise that visitors come to our island, at this time of year, to study the wild flowers, but I'm afraid the military mind cannot comprehend this concept and consider every one as a potential spy!"

The best time to visit Cyprus, and see the most species of wild orchid in flower, is between mid-March and mid-April. Of course, you may miss some of the early flowering species like *Orchis punctulata* and consequently some of those which flower somewhat later like *Platanthera holmboei*, and these may require a special visit.

Cyprus is 224km east to west and 96km north to south. The Greek Cypriot south of the island is dominated by the mighty Troodos Mountains with the highest peak, Olympus, reaching 1,952m. It is here on the lower slopes, among the large expanses of coniferous forest, a number of orchid species can be found. One of the most common is the endemic *Orchis anatolica* ssp. *troodi* which has large pale purple flowers with a long upward pointing spur. If you are fortunate, you may find an occasional pure white specimen shining bright, even on the most dismal of days. Often growing with *O. anatolica* ssp. *troodi* is the dazzling yellow form of *Dactylorhiza romana*. Elsewhere, a pink form of this species can be found, but, as yet has not been recorded from Cyprus. Other species which can be found growing in the Troodos forest include the rare, intensely green, **butterfly orchid**, *Platanthera chlorantha* ssp. *holmboei*, which has the restricted distribution of Cyprus and southern Turkey. This species is closely related to a similar species *P. chlorantha* ssp. *algeriensis* from North Africa. Growing with the latter, but a little more frequently, is another orchid also with a restricted distribution, *Orchis syriaca*, which can be found in a number of locations around the eastern Mediterranean, including southern Turkey, and as the name suggests, Syria.



Moving to the west of the island, to the forest areas, nearer the coast, more orchids await the eager orchid spotter. Some may be familiar like *Anacamptis pyramidalis* and *Neotinea maculata* which can be found in the British Isles. Others have a more eastern Mediterranean distribution such as *Ophrys elegans*, which has strongly reflexed sepals and dull brown lip with two bluish eye markings. At one time this species was thought to be related to *Ophrys argolica*, but has now been classified as a separate species found only in Cyprus and southern Turkey. A good area to start your search for these species is the woodland rides and tracks found between Kathikas and Pegeia. Here, as well as the orchids mentioned above, can be found the delicate *Ophrys bornmulleri* and the closely related *Ophrys levantina*, the latter being larger, and not so common, as the former.

Away from the forests, in areas of uncultivated ground and scrub, another series of orchids can be found. By far the most striking are *Orchis italica* with its large pink flower heads and the **giant orchid**, *Barlia robertiana*, both can easily be seen, even from a moving car! Other species that can be found in this type of habitat, include *Ophrys mammosa*, *Oph. transhyrcana*, *Oph. apifera*, and an unusual form *Oph. apifera* var. *bicolor*, together with the very rare *Orchis punctulata*. A good place to look for *Oph. apifera* var. *bicolor*, with its striking yellow and brown banded lip, is at the roadside beside the Limassol salt lake just past the Cat Sanctuary, growing together with the normal form and purple spikes of *Orchis coriophora*. The rare *Orchis punctulata* is found in a number of small colonies throughout the island, particularly in the area around Polis, near the Akamas peninsula. It is also near here that the only site on Cyprus for *Ophrys tenthredinifera* is located. On the Akamas peninsula itself, a number of orchids of interest can be found, including a few confusing members of the *Serapias* genus. These include *Serapias orientalis*, *S. vomeracea* ssp. *laxiflora* and the recently described rarities *S. aphroditae*, *S. parviflora* and *S. levantina*. The latter, however, could simply be a hybrid between *S. orientalis* and *S. vomeracea*, and further work is clearly required. Incidentally it is here too that the rare tulip, *Tulipa cypri*, has one of its few locations in the south of the island.

Rarities can even be found on the main road between Paphos and Limassol, where, just as you climb out of Happy Valley, a deep gorge within the Sovereign Base at Episkopi, the **scarce marsh helleborine**, *Epipactis veratrifolia*, can be found. Here, in early April, on a damp cliff on the north side of the road, this speciality can be found in full flower, when normally it can be found only in the high Troodos during June or July. Be warned, though, the area is patrolled by military police, so it may be best to get permission from the guard house before attempting to photograph this special orchid.

As one would expect the Turkish occupied north of the island differs culturally, but we found both the Greek Cypriots and the Turkish Cypriots equally welcoming and friendly. The geography differs too, with the Troodos-dominated south changed for the Kyrenia range, a limestone mountain ridge reaching 1,024m, which hugs the north coast and stretches almost the whole length of the island. The ridge is dotted along its length with Crusader castles which are of great interest, not least for the number of orchids to be found by the wayside, as you walk, or climb, to the more inaccessible ones.

One special orchid not mentioned thus far, is the striking *Ophrys kotschyi*. Although it can be found in a few isolated locations in south Cyprus it is in the north that it is most prevalent. In fact, at almost all of the areas where we stopped to look for plants in the north, we found this most attractive of species. One site, where we found it growing with a number of other orchids, is east of Kyrenia.

town, on a track that leads from the village of Ayios Amvrosios to the nunnery of Antiphonitis. At the start of the track *Ophrys kotschyi* can be found along with *Oph. bornmulleri*, *Orchis syriaca*, *O. italica*, *Serapias orientalis*, and *S. levantina*. Further along the track where the surroundings are more wooded, *Ophrys elegans*, *Oph. iricolor*, *Orchis syriaca*, *Dactylorhiza romana* and *Neotinea maculata* were seen. Even in the 'garden' area of the Nunnery spikes of *Ophrys kotschyi* were found in some profusion.

Another good area, where most of the species mentioned above can be found, is along the coast, west of Kyrenia town. Here can be found *Orchis sancta* and the earlier flowering *Orchis coriophora*. These are two quite similar species but they can be separated by noting that the flowers of *O. sancta* have unspotted lips whereas those of *O. coriophora* are distinctly spotted. The colour too is a good way of differentiating between the two. Flowers of *O. sancta* are a rosy pink while *O. coriophora* blooms have a deeper more purple colour. Easy when you get your eye in!

This has been a personal guide to the wealth of orchids to be found on Cyprus and I have found many more species than those described above. For identification I use 'Orchids of Britain & Europe' by Pierre Delforge and a German/English book by Gisela and Karlheinz Morschek, 'Orchids of Cyprus'. And finally, remember when you find any wild plant, it should be admired, photographed, then left for others to find and enjoy.

Brian Allan

Changing Nature

Changing Nature is a series of environmental surveys and events, involving local people, to be carried out over a one year period. The fruits of these surveys and events will be presented as part of a year long public exhibition at McManus Galleries, Dundee, from December 2000.



What Does this Project hope to Achieve?

- a growing interest and sense of ownership of the environment,
- increased participation in enjoying, exploring and improving the local environment.

How do I get involved?

- Everyone is welcome. You may wish to develop and explore your own environmental interest. Feel free to contact us should you wish to inquire, suggest or become involved in any way.
- A variety of city-wide events and surveys will be organised for schools, community groups and the general public. Through fun activities and walks, these will introduce adults and children to the wonders of Dundee's environment.

* Air Pollution and Lichens

* Garden Wildlife

* Life of the Dighty Burn

* Looking Forward, Looking Back

* The Ground Under Our Feet

* Built to Last

* At the Mouth of the Tay

* Urban Wildlife Survey

For Further Information, contact: Graham McLean, Project Officer: Changing Nature, McManus Galleries, Albert Square, Dundee, DD1 1DA Tel: 01382 432069. Fax: 01382 432070 E-Mail: graham.mclean@dundeecity.gov.uk



Dundee Museums are still interested in obtaining any natural history records you may have for inclusion in **Naturebase**. Ideally any record should have a date and grid reference in addition to the name of the observer. Further information can be obtained from the McManus Gallery on 01382 432069

DUNDEE NATURALISTS' SOCIETY

SUMMER EXCURSION PROGRAMME - 1999

Dalkeith Butterfly Farm & Arthur's Seat. Saturday 8th May. For our first outing of the 1999 summer programme we are revisiting two ever popular venues. We will start the day at Dalkeith Butterfly Farm and the adjoining Garden Centre. The tropical temperatures experienced in the butterfly house will be a welcome bonus for our first trip. We will leave the Butterfly Farm in time to drive to Arthur's Seat where we can lunch while watching the myriad of waterfowl at Duddingston Loch. There are also numerous walks criss-crossing the ancient volcano to suit all tastes.

Mylnefield. Tuesday 18th May. Come out with us for an evening visit to Scotland's premier horticultural and agricultural research institute. Meet us at the car park in front of the house at 7.00pm. We will have a guided tour round the crops, greenhouses and other facilities. Did you know, for instance, that they maintain a small weather station and have a vacuum pump to suck aphids out of the air at different levels? It is still worth visiting though, even if the weather is inclement as a wet weather programme is planned. We'll hear about the very varied work done there, about pests and diseases, about some of the latest research and about a few of the new crops introduced. (The leader has very pleasant memories of taking part in taste tests on sweet corn varieties in a field on a hot summer day!) It should be a fascinating evening, come rain or shine, well worth a visit. If you **don't have transport and would like a lift, please don't hesitate to contact** Jim Cook, Doug Palmer or Roma Miller.

Inverness Weekend. 4th to 6th June. A busy and very interesting weekend will include a visit to the R.S.P.B. Reserve at Loch Ruthven (Britain's only breeding population of Slavonian Grebes); woodland walks between Dores and Foyers; walks on some of the islands on River Ness or to Craig Phadraig; North Kessock on the Black Isle to visit the red kite and dolphin information centres, and a trip via Munlochy Bay to Chanonry Point, Fortrose.

'Archaeolink' & River Don Walk. Saturday 12th June. A visit to the Archaeolink theme site which is devoted to the mostly iron age pre-history of Aberdeenshire, including many practical demonstrations of life at the time. If time permits we will include an easy walk on the Nature reserve along the mouth of the River Don to Robert the Bruce's Brig o' Balgownie.

Ledcreeff Loch & Lundie Crag. Tuesday 15th June Meet at the roadside car park at the top of Tullybaccart at 7.00pm. This evening visit will take us to one of our local natural history gems. Come out with us for a fascinating visit and to brush up on a whole range of natural history. A fairly short walk past the farm and along the forest trail (chances of woodland birds and even squirrels and deer) leads us out to the Broken Loch (for sightings of water birds, amphibians, and a variety of water and swamp plants). Further on the forest opens out onto moorland (for moorland plants and birds, such as grouse) and to the scree slopes at the foot of the Crag. The mountain goats in the party have a chance of seeing a range of dry-rock plants and, especially, **hairy violet** in its sole Angus site!

Ben Lawers. Saturday 26th June Where is the best botanical mountain in Perthshire and one of the very best in the whole of Britain? That's right, Ben Lawers - and we're going there! The bus will take some of the hard work out of the visit by transporting us up to the car park at the **visitor centre**. The whole panorama of the mountain and Loch Tay will open out before our very eyes, weather permitting. For the less energetic among us the visitor centre holds many attractions and there a variety of trails in the area around and about and even up the road to the reservoir beside Meall nan Ptarmachan. The first hill, Beinn Ghlas, isn't a particularly steep climb but it is steady and will test the lungs. **Full Mountain gear essential** because of the rough conditions underfoot, and the wind as much as anything else. We will search the corrie and the cliffs beyond for interesting plants. Our targets include the beautiful **alpine forget-me-not, alpine fleabane** and-praise be- **snow gentian!** I can hardly wait and I hope you can't either. It should be a fantastic day.

Norman's Law. Saturday 10th July. This is a walk to the top of 285m (935ft) high Norman's Law to enjoy superb views over the surrounding countryside. The intention of this outing is to repeat, as far as possible the first recorded outing of the Society in July 1875. We will probably return along the banks of the Tay through Balmerino Woods on the way Home.

Tree Walk in Camperdown Park. Tuesday 20th July. Meet in front of the house at 7.00pm and join us on a gentle ramble round the park to look at some of the many fine trees growing there.

Benholm Mill & Shore Walk Near Gourdon. Saturday 14th August. Both Benholm and Gourdon are situated near Inverbervie on the Montrose to Stonehaven road. Benholm is a small meal mill in a most attractive setting with its duck pond and woodland walk. There is also a small cafe providing snacks, etc. The walk to Gourdon along the foreshore, (or on the grassy path above the foreshore), is interesting for its bird-life and butterflies as well as the flowers, and there is a popular hotel in Gourdon. Both walks are on easy terrain and should allow ample time for observing the local flora and fauna.

Angus Coast Orchids. Tuesday 17th August. This is an evening walk to view the small colony of pyramidal orchids discovered recently near Easthaven by Dr. Les Tucker, (see bulletin for more information) There had previously been no records of these anywhere on the east coast of Scotland north of Fife. Two colonies of frog orchids and one of autumn gentians were also seen by Les in this area.

Den of Airlie. Saturday 11th September. The Den of Airlie is a three pronged ravine formed by the junction of the Melgam Water and the River Isla. At the junction the Melgam Water joins the river with such force that it is said to be the only place in the British Isles where the water flows both East and West. On all sides there is a drop, straight down to the water, of about 100 ft (30m). Several rare plants such as **verbascum, rubus, hesperis, lychnis, and viscaria** grow there, trapped in their own protected habitat.

DUNDEE NATURALISTS' SOCIETY

125th Anniversary



1874 - 1999

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Introduction

The account reprinted below of the 1875 excursion to Norman's Law, Fife, gives an insight into the similarities and differences between outings then and now. We have organised a commemorative trip on 10th July 1999 to repeat this, one of the earliest recorded outings of the Society, which took place on 31st July 1875. Our coach based trip to Norman's Law will only occupy a short half day, whereas the combination of ferry and wagonette meant that in 1875 this was truly an expedition. The old fashioned mode of transport is to be envied, as it was possible to make numerous stops to examine the natural history along the route, though the degree of comfort may not have been up to our modern expectations!

Membership of the Society in 1874 was 42, but by 1875 this had risen to just over one hundred. Then, as now, only a proportion of the membership attended any excursion, and though this appears to have been a lower turnout than usual, the actual numbers can be judged by the transport. A wagonette would probably have seated about eight people.

When the name changed from Norman Law to Norman's Law is not known, but the hill fort itself has a series of defences of various ages, and the remains of some hut circles. Its excellent defensive site was occupied over a long period, probably into the first millennium AD. Nowadays there is an Ordnance Survey trig point on the summit and a helpful direction-finder which enables the distant mountains to be identified, on a clear day! It will be interesting to see how many of the plants mentioned in the account are seen on our outing, most of those mentioned are still common, though the cornflower (blue cyanus) is sadly now found only as a garden escape, if at all.

The Dr Chalmers mentioned in the text was a noted theologian and advocate of social reform. He had been the minister at Kilmany but then moved to a new charge in Glasgow. He achieved fame in 1843 when, at 'the Disruption', he formed the Free Church after walking out of the General Assembly of the Church of Scotland with 470 members as the culmination of ten years of objection against patronage.



The account below was originally published in The Dundee Advertiser on 3rd August 1875, and then reproduced in a small pamphlet with other accounts of excursions as a record of the Society's activities. The text is as originally published in the pamphlet. It is printed here with the permission of DC Thompson Ltd.

NATURALISTS' EXCURSION TO NORMAN LAW

On Saturday afternoon, the Dundee Naturalists' Society enjoyed an excursion to Norman Law. Through various circumstances the muster was small, but the Microscopic, Geological, and Botanical sections were represented. Immediately on the arrival of the two o'clock steamer at Newport, the party drove off in a wagonette, taking the south road going, via Kilmany, and passing up through the valley of the Moutray, and on the return driving through the Brunton, Hazelton Walls, Priorswell, and the Gauldry. All along the route a splendid array of the native flora of the season was met with. Prominent was the larger scabious dominating over the national campanula, relieved in their blues by the lotus, major and minor, mayweed, yarrow, and stellaria. Nothing could exceed the richness and delicacy of the restharrow, which grew in profusion. "The blue cyanus" kept company in myriads with the poppy in the cornfields, and among these were also found the little scarlet pimpernel - a gem quite common in the cornfields around Newport, though scarcely a specimen can be found on the Forfarshire banks of the Tay. Equisetum kept company with selfheal and the campions, while the beautiful meadow lychnis kept companionship with buttercups and rushes. Vetches and trefoils - white, blue, and yellow - were abundant. At Rathillet a pond or dam surrounded with meadow-sweet attracted the attention of the microscopists, who spent a considerable time in netting its fauna and flora, and carried away in bottles and vasculums a considerable supply of chara and fresh-water algae, daphinae, rotifers, and fresh-water crustaceans for stocking aquariums and for microscopic examination. The pond inhabited by the trout was fed by a clear running, sandy-bedded rill, playing at hide-and-seek among brooklimes and cresses, with water spiders sporting on its surface, and minnows darting like shadows among its limpid waters. Near and about Luthrie, the flora showed woundwort, orpine, nipplewort, small-branched hawkweed, and the polypody fern. Leaving the machine at the Free Church Manse of Flisk and Creich, where the lintel of the dining-room window bore the motto *Ut migraturus habita*, the party set out for climbing Norman Law, making a detour, embracing blind paths in the skirts of the woods of Carphin, where great tracts of eagle brake were studded with hundreds of noble stems of the foxglove. On a rock in the wood a white specimen of the crossleaved heath was found. Emerging from the wood which covers the north-east

slopes of Norman Law, and getting on the wild moorland, the erica and calluna heaths were found in beautiful bloom, with the intervening patches of green carpet starred with tormentil. Here also were found St. John's wort, cistus, and the yellow mountain violet. At about an altitude of 800 feet grey patches of the reindeer moss were seen, with numerous large grasshoppers springing from three to six feet at a bound. Every few yards revealed an emmet's nest, while hundreds of the busy creatures were on the wing - a sight seldom to be seen except in very sultry weather. On reaching the cone a magnificent and most spacious prospect all around was presented to the view of the party. In the foreground, north and west, lay the Tay and the Earn; to the east St Andrew's Bay and German Ocean; southwards the woods and fields of the rolling land of "the kingdom," stretching away into the hazy distance of summer; the Lomonds and Largo Law clearly defined; while far beyond in the skyline Arthur's Seat and Calton Hill of Edinburgh. Dr Chalmers used not unfrequently to climb these hills to obtain a glimpse of the summit of Norman Law, which carried his thoughts and imagination back to the peaceful scenes of his loved Kilmany. Far in the north and west the view was bounded by the ancient ramparts of Scotland, the dark Grampians, showing the grand redoubts of Ben More, Ben Lomond, Ben Lawers, Ben-y-Gloe, and Schiehallion towering in the clouds. The survey map was laid out on the turf, and the names of the woods and places around were thereby easily ascertained. Some took to consulting Hooker's "Students' Flora" in regard to their findings; some, with hammer in hand, to chipping rock (traces of the Old Red Sandstone were found, dipping at an angle of 45 degrees to the Tay); some examined the vestiges of the ancient Danish fort which had crowned the summit, and given the name Northman, otherwise Norman, to the hill. Many of the large pile of stones raised by the sappers in the survey were found marked with names of visitors, while the pole or flagstaff is notched all over with the initials of "names inglorious born to be forgot." On returning to the Manse, while one of the party was gathering viper's bugloss and stonecrop, another by the edge of a cornfield, where sunspurge grew, found a gigantic specimen of the greater plantain, with thirty leaves all erect, most of them 2 feet in length, each leaf where it expands measuring 9 inches long by 7 inches in breadth. There were 24 stems, some of them measuring 2 feet 4 inches in length, the parts occupied by seed being about 1 foot and 2 inches. After partaking of the hospitality of the Manse, the party set out for their return, and landed safe in Newport, highly pleased with their ninth excursion for the season, their next tryst being with the Perth Naturalists to the Reekie Linn.

