

# Dundee Naturalists' Society

Instituted 1874



**Bulletin No 23 1998**

**DUNDEE NATURALISTS' SOCIETY**  
**ANNUAL BULLETIN No 23**  
**1998**

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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, Les Tucker, Christine Reid, Mary Reid, Doug Palmer, Barbara Hogarth 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 and Colin 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 year we have had another fascinating range of summer field trips with at least one to an excellent new site not known to more than one long-standing member, and an excellent range of winter lectures. I should like to record thanks to all members who took part in the planning and execution of both programmes.

This year the Society took an active role in a local planning process which resulted in the rejection of plans for a hotel development in Riverside Park. The proposal contravened the City Council's own recent policies on Open Space, Wildlife Corridors and a nearby housing Conservation Area. Nevertheless without public protest the Council would have sold the land and demolished the existing sports pavilion. Protests were orchestrated by the local Community Council which gave guidance on procedures, valid grounds of protest, and actually rehearsed the deputations. Many thanks to the Society members who involved themselves in this procedure and attended in support at the Development Quality Committee when deputations were heard. Our protest was confined to the viability of the wildlife corridors set out under the Urban Nature Conservation Subject Local Plan. On this occasion efforts were rewarded - though by only one vote.

I should like to reiterate my pleas for efforts by all members to recruit new people. This was a year which proved the value of the backup of the two Vice President posts. Bede and Gordon kindly stepped into my shoes when I was unable to officiate during the winter season. But the Council depends on new blood for the posts being vacated every three years and we need a pool of active members to draw upon. Our field trips also depend on sufficient numbers to keep coach bookings viable.

As my term of office ends I should like to say how grateful I am for the support of members, and particularly the Council I have served with. Their efforts on behalf of the Society have been made with cheerfulness and enthusiasm.

Best wishes for the future

Margaret Duncan

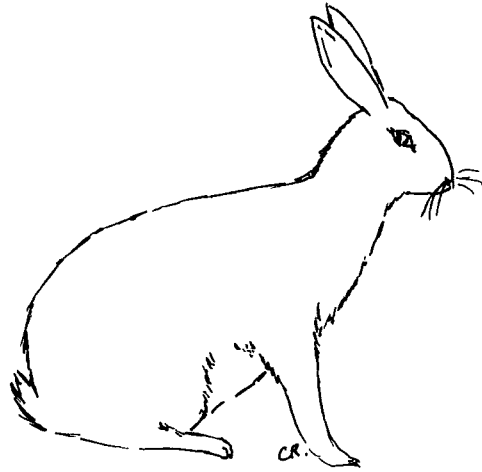
### CARSEGOWNIEMUIR REPORT

One consolation about the wet weather this summer was that at least it was good for growing trees. Although at the time of going to press only a few trees had been measured, the early results indicate that growth this year has been very good.

At times, though, it has been very windy, with a considerable gale in mid-November. Several trees, particularly **birches**, have lost considerable lengths of their main stems because they were weakened by being worn against the tops of the wire protectors. We've also lost not one but three big old **rowan** trees. The fall of one of them, located on the south side of the path between ponds one and two, was not much of a surprise. Another smaller tree fell nearby. The third one, however, seemed large and healthy. It was located to the south of the main path near the narrow end of pond five and was large enough for us to have attached a bat box to it.

This year's spring planting in late March saw only a small number of new trees going in. Much of the time was spent trying to clear weeds, particularly grasses, from around the bases of many of the smaller trees. Some of the **willows** at the west end of pond four were pollarded, to allow more light in and to give visiting ducks a clear flight path. The resulting branches and twigs were used by Ron Lawie, Peter Ellis, Ewan McGregor and Jim Cook to construct a woven windbreak at the exposed far end of the quarry, latterly with the help of Mary and Christine Reid and Andrew Ferguson who were working for conservation badges for Brownies and Cubs. This fence has reduced exposure, but was not fully tested by the conditions of the wet summer. Two of the **willow** posts later sprouted leaves, whether they will survive remains to be seen. Later on, in high - but still wet - summer, a small group of enthusiasts spent several evenings on the usual job of clearing rosebay willowherb from around the small trees. Although a great chore, it is a very important task to prevent the willowherb from completely dominating the young trees.

The other major problem in the quarry is the large number of **rabbits**. Pfennig the lurcher has tried her best and managed to catch about 15 rabbits this past autumn, to our knowledge, but that small number makes very little difference. The snow-fall in early December '98 revealed large numbers of rabbit tracks over all parts of the quarry. We will have to run another campaign to try to block holes as much as possible and, perhaps, install more pitfall traps. A hard and frosty - but not snowy - winter may help us.



This year we were very much better organised for the main planting period in November. Most of the holes had already been dug, and posts placed. This backbreaking work was done by Duncan and, especially, Ewan McGregor. Our (very!) grateful thanks to both of them. The planting day itself went very well. The weather was almost perfect - mild, clear and sunny with only a slight breeze later in the afternoon. Alastair Fraser, Joy Ingram, Mamie Bruce-Gardyne, Margaret McLaren, our president Margaret Duncan, Doug Palmer, Gordon Maxwell, Ewan McGregor and Jim Cook all set to with a right good will. The main tasks at first were transporting all the trees and materials up to the quarry and cutting wire rabbit-mesh. By lunchtime, however, most of the trees had been planted and wired. We dug a few more holes and finished the planting and then started clearing up and weeding. A small task force visited the quarry the next weekend to add a few more trees and get the labelling done. A total of 35 trees have been planted this autumn, mostly **ash** and **hawthorn** with a few **birch** and a large **elm**. At this rate we should be up to our target of a thousand living trees in only a few more years.

The last major job of the Carsegowniemuir calendar is the tree measuring to be undertaken in December and early January. I look forward to comparing these results with those from last year as an indication of growth rate. Perhaps all the black clouds and rain have a silver lining after all!

Note: The current total, so far as accuracy will allow, is 940 trees living out of 1220 planted. This number reflects a greater accuracy in the recording and analysis of tree data. Doug and Jim have - finally - completed the computerised records and further analyses will follow soon.

Jim Cook

## TECHNICAL CONVENER'S REPORT

The wet weather this year limited our activities, but we did manage a few outings in early summer with a small botanical group. They confirmed that a number of the more unusual local plants were still growing well in their original locations. However, the species that has suffered most this year is the **sea pea** at its Carnoustie site. The large scale dumping of rocks along the golf course foreshore has obliterated at least half the colony. The good news is that a survey team from DNS in September showed that the plant was surviving and even showing signs of recovery. We will monitor the colony's growth over the next few years.

The other activity that has kept us busy this autumn is preparing a submission to the planning committee of Dundee City Council about the siting of the proposed McDonalds hotel in the middle of the Riverside wildlife corridor. Vice-President Bede Pounder produced an excellent report about the potential effects of the hotel on local wildlife and presented this as part of the delegation at the special meeting of the council's Development Committee on the evening of 17th December. Jim Cook and Vice-President Gordon Maxwell attended as part of the delegation. In support were Jean Colquhoun, Doreen Fraser and Jean Pollard. As you will know, after a long meeting the committee voted - closely, by 17 votes to 16 - to reject the planning application. We were very pleased and now look forward to an excellent hotel at the harbour site.

Jim Cook

## OBITUARIES

### AN APPRECIATION OF DEREK ROBERTSON

1930 - 1998

It was with a deep sense of shock, sadness and loss that we heard that our Honorary Vice President, Dr Derek Robertson, sadly passed away on Tuesday 10th March. Unfortunately, the terrible news came too late for last year's Bulletin and we remember and commemorate him here.

Derek was one of those rare naturalists, a first rate all rounder. Overall his subject was ecology, for which he had originally been awarded his doctorate. He was a very good field botanist but his real field of expertise, if not passion, was entomology, particularly the lepidoptera. He had studied and collected very widely in Scotland, northern England and further afield and his voluminous collections were often consulted by professionals. He published some of his knowledge of the local lepidoptera in the 'Angus Wildlife Review' in the early 1970s. His wildlife interests didn't just stop there, however. He had a good knowledge of birds and was expert on such diverse subjects as sea-shore life, molluscs, both marine and freshwater, isopods and, in recent years, arachnids. One of his great strengths was that he did not rest on his many talents and laurels, numerous though they were, but his almost boyish enthusiasm for natural history always made him keen to learn more. As an example, by teaching himself he rapidly became an expert on local spiders.

Another aspect of his interest and expertise was to advise on and help manage several of the best local nature reserves, particularly Barry Buddon and the Arbroath and Seaton Cliffs reserve. He was much involved in helping to set up the latter reserve for the Scottish Wildlife Trust. The booklet he wrote nearly 30 years ago for the nature trail is still used and has been reprinted recently. Lately he had been involved in the work setting up the Miley reserve in Dundee for the SWT local branch. Derek was highly regarded by such organisations as the SWT and Dundee Tree Group, not just for his valuable work on various committees but his practical contributions as well. He organised and ran a number of fund raising campaigns, supervised work parties and helped on land management projects. He himself was responsible for saving the hairy buttercup (*Ranunculus sardous*) when its only known locality on the edge of Invergowrie Bay was destroyed during land reclamation work. He grew it in his garden and then reintroduced plants into the bay area where we refound it only last spring.

This work led to his other great contribution, that of communicating interest in and knowledge of local natural history. His lecturing skills were highly valued, not just by our Society but by many other organisations including the Department of Continuing Education of Dundee University and Dundee College, recently in the "Wildlife in Tayside" lecture series. We also remember his contributions on a wide variety of natural history subjects to Campus Radio's 'Nature Trail' on Radio Tay. On the podium Derek displayed an almost magical skill. His many years' experience as lecturer and teacher made him particularly valuable. He always seemed to be able to communicate his voluminous knowledge of and enthusiasm for the subject in hand and for natural history in general. He was well known for his lectures on many topics in Dundee and Perth, in the surrounding areas and further afield. Derek also spent much time talking to local schools and helping to enthuse children with a love for their local wildlife. He was a mine of information on local natural history and it is still difficult to realise that I cannot pick up the phone and receive all the latest news and advice.

Derek had been a member of Dundee Naturalists for many years and made numerous valued contributions. So many, that in 1984 your Council was delighted to appoint him an Honorary Vice-President. Over the years he led the Society on a wide variety of outings - and my mind's eye clearly pictures him enthusing to a group of naturalists around him - and was always willing to lend his expertise to our surveys and projects. In fact, his most recent work for this Society was the spring 1997 survey of Carsegowriemuir Quarry. He had contributed a number of specialised records before that. He also willingly communicated his expertise in a number of lectures to the Nats. We remember very well his presentation only last year on "The Wildlife of Invergowrie Bay and Environs" and his fascinating lectures in the past on "Butterflies" and "Lepidoptera".

It still remains hard to believe that someone with such expertise, enthusiasm, youthfulness and so full of the joys of life should have been struck down, even by that naturalists' disease of Leptospirosis. He will be very much missed.

Jim Cook

Note: There is an article on Outdoor Infections, including Leptospirosis, on page 34.

## DEREK ROBERTSON'S MEMORIAL FUND

The total collection, between the Scottish Wildlife Trust and Dundee Naturalists' Society, topped out at a little over £500. We were very pleased with the response. The two groups have decided to pool their resources and organise a series of joint memorial events with the general theme of interpreting local wildlife. The first one will be this summer, starting with a walk along Seaton Cliffs (Arbroath) nature trail, one of Derek's favourite localities, on 20th June 1999, at 1.30pm.

The small joint organising committee considered a number of other suggestions and eventually decided upon a project. We hope to obtain a matching grant, and thought that the funds would be best used by organising a survey of the distribution and other aspects of a number of invertebrate groups on the Seaton Cliffs reserve. The survey should take several weeks and appeal, we hope, to a range of interested and informed people including biology/ecology students, knowledgeable amateurs and enthusiasts. The aim would be to produce a detailed report, write an article for 'Scottish Wildlife' and lead two or three outings to show and explain the more interesting findings. Anybody interested? Please apply as soon as possible to any Council member.

Jim Cook

## MARGARET CHALMERS

It is with regret that we record the death of one of our members of long standing, Margaret Chalmers, who died aged 74 in Ninewells Hospital on 25th November after a stroke which rendered her unable to communicate during the last two months of her life.

Margaret retired at the age of 60, as a widow, from a profession as a Careers Adviser with the Department of Employment. She commenced an active retirement after joining organisations and societies such as our own, the Civil Service Retirement Association, Activity in Retirement, Dundee Women's Citizens, and the Dundee Art Galleries and Museums Association and had important roles in the last two of these, as secretary and treasurer respectively. She attended the Royal Geographical Society lectures in Dundee and classes organised by the Department of Continuing Education in the University. In addition, she attended sewing classes, and was a keen allotment gardener. Her range of interests was obviously wide, and to it must be added a love of music which had been with her throughout her life. She was a talented pianist, always willing to share her ability when an accompanist was needed. She had a jovial, outgoing personality, and was an instant friend of anyone with whom she came in contact. Her death was a sad loss to two married nieces in Australia, and to her many good friends in this city.

Bede Pounder

## WINTER MEETINGS 1998

### CROMBIE CAPERS

Barbecue 3rd January

On a very blowy morning over a score of Nats met at Crombie Country Park to welcome the New Year with a barbecue. A quiz had been devised to tempt people away from the comfort of the classroom provided for our use and many took to the path round the loch in search of birds (varied), cones nibbled by squirrels (plentiful), plants in flower (rare) and goose feathers (some rather optimistically identified as such). The only obvious plant in flower was **gorse**, with some **bell heather** and a **rush** just qualifying, while other candidates had been reluctantly rejected as being merely in bud or more accurately described as seed-heads. The bird-watching was more successful, with over 20 species being seen altogether, including a **jay**, a **grebe**, **tree-creepers**, **long-tailed tits**, **moorhens**, **coots**, **mallard**, **mute swans**, **fieldfares**, **redwings** and ludicrously tame **coal tits** by

the Lodge Sightings of the day, though, were **red squirrels**, seen both in the woods and very close indeed to those preparing the barbecue by the Lodge.

Returning to the Lodge, the barbecue had been lit in as sheltered a spot as was possible in the courtyard and soon a large crowd of cooks was surrounding it to prepare their sausages, burgers and intriguing foil packages revealing a range of delights Mulled wine, brought by Jenny (Brian was working) and heated in the kitchen, accompanied the feast, which was rounded off by a marvellous array of cakes, mince pies and fudge provided by members It was then time to mark the quiz, revealing which Nats had been out and about and which had carefully read the leaflets about Crombie that provided many of the answers - some even being prepared to admit that their identification of a tree by the Lodge was not on the basis of field-work but the result of documentary research in the "Tree Trail" leaflet The winner was Dorothy Fyffe Further diversion was provided by a competition to make a festive crown or decoration from natural materials, won by the crowns made by Christine Reid and Moira McGregor

Heartfelt thanks are due to Lesley Wood for giving us the use of the facilities at Crombie. On a day when a gale was blowing which brought some heavy showers, the use of the courtyard for the barbecue and the classroom as shelter was more than welcome

Colin Reid



## THE ECOLOGY OF THE AFRICAN DWARF CROCODILE

Dr John Riley 20th January

Only 30 members were present on this very wintry night. After all the usual announcements, Margaret introduced the speaker. Dr Riley works in the University of Dundee on the parasitic Pentastomid worms found in the lungs of reptiles. Of the 22 species of crocodile in the world all have been found to have the worms, which feed on the blood of the host animal As many as 300 worms, up to 15cm long, have been found in the lungs of one reptile, and when eggs are laid and released they are carried by fish as the intermediate host

There are three kinds of crocodiles in Africa The Nile crocodile is widespread in the main river systems The African slender snouted crocodile can grow to 3.5m long and the African dwarf crocodile, the main subject of the study, grows to a maximum of only 1.4m Very little is known about the habits of either of the last two because of their preference for deep forest, though it is known that the western subspecies of the dwarf crocodile is nearly extinct The area studied was in the Congo Basin in the flood plain forests north of its confluence with the Oubangi River, near Impfandi, as no crocodiles are found west of there due to over-hunting

The terrain was deep tropical jungle swamp, and a route had to be cut, carefully standing on tree roots to prevent sinking into the peat bog. The expedition camped at night in great nests of branches to keep dry These were of a very similar construction to that used by the gorillas which inhabit these forests!

The crocodiles were not found in the deepest jungle, but on the drier, slightly higher, edges and in pools about one metre deep beside tree roots The crocs make a tunnel under the roots and emerge to feed at night, to avoid possible predation from leopards. They use well worn feeding trails and their diet in the dry season consists of spiders, snails, small mammals, birds, frogs and fish. Fish are important, and especially catfish which may share the pools or bury themselves in the mud awaiting the wet season. It is thought that the catfish may be the route for transmission of the worms in the dry season as they live in such close proximity to the crocodiles

The female builds a nest of dry leaves and debris and ginger plants. The ginger grows on the nest pile and its proliferating roots help to keep the nest dry The nest is about two metres high and 10 to 15 eggs are laid in its centre and then guarded by the female for the 100 days until the young hatch The female then cares for the young for up to two years and only breeds every two or three years

Man is the most significant predator, hunting the crocodiles for food and for selling at market The information on diet and parasites was obtained by buying the intestines and lungs in the market

The expedition lived in a village, on firm ground, and made measured trips into the swamp to try to estimate the distribution of the crocodiles. No crocodiles were found more than 2.5 km from the fringe of the terra-firma forest and the final estimate was a density of one crocodile per 3.5 hectares.

Dr Riley injected the account of his practical difficulties with good humour and gave a fascinating account of his work. Doug Palmer gave the vote of thanks.

Marjory Tennant

## MEMBERS' NIGHT

2nd February

A good turnout came to enjoy a selection of interesting slides from no fewer than twelve members. Brian Allan compered the evening and kept everything running smoothly - no mean task when the number of slides shown was so great. We even finished on time and kept the janitors happy! A summary of the slides shown follows.

Brian Allan	Corfu in autumn. Cyclamen, crocus and olives.
Dorothy Fyffe	The Gambia. Birds, praying mantis, mangroves.
Jim Cook	Sweden. Glacial shell ridge, plants.
Richard Brinklow	Grasshoppers, ants and voles.
Margaret Duncan	Trees, Hawkhill and Carsegowniemuir.
Doreen Fraser	Dolomites, plants and scenery. Some slides from Ruth Arnold.
Peter Ellis	Greenland expedition.
Les Tucker	Find the orchid!
Bob McCurley	Assorted wildlife. Adders to tiger beetles, via long eared owls.
Doug Palmer	Alyth Den in autumn and winter, two weeks apart!
Alban Houghton	Points north, Letham to Iceland, via Portugal, Sweden and South Africa!!
Marjory Tennant	Algarve plants in spring.

Anne Reid

## WILDLIFE IN ETHIOPIA

Ray Taylor 17th February

In this lecture, we were taken on a pictorial tour of a very varied range of interesting habitats to the north east and south west of Addis Ababa, the capital of Ethiopia.

Ray Taylor started by reminding us of some of the history of this little-known country, one-time home of the Queen of Sheba, and in 330AD, the first country to see the establishment of Christianity, which, as the Coptic sect, is still a major force in everyday affairs. Recent decades have witnessed the overthrow by the Stalinist dictator Mengistu of Haile Selassie's dynasty, followed later by the demise in his turn of Mengistu in events which left a democracy reeling from the effects of famine and the aftermath of a long war with neighbouring Eritrea.

Despite spending much of his trips observing the country through the windows of a tourist bus, Ray managed to bag a large number of photographs illustrating the impressive number of bird species to be seen in central Africa. Although some of these are familiar to us at home, for example **little grebes** and **swallows**, many, such as **Ruppel's chat**, **black headed shagra**, **pink billed raven**, **wattled ibis**, **Rouget's rail** and **blue winged goose** are endemic to Ethiopia. Other birds seen covered an enormous range of physical size from the diminutive **mouse bird** (whose feathers have fur-like characteristics) to the **Goliath heron**, and an even bigger range in terms of physical attraction, from colourful **carmine bee-eaters** and **yellow rock thrushes**, delicate **black winged stilts** and immaculate **spur-winged plovers**, to those horrific products of evolutionary change, **griffon vultures** and **Abbyssinian hornbills**. **Maribou storks** deserve a mention here, but perhaps these are too ugly to be fitted into a scale occupied by other species.

The first trip illustrated took us to high plateau lands north of Addis where **Auger buzzards**, **black kites** and **vultures** were common, and exotic species such as **pin-tailed whydah**, **Lanner**



**falcons, weavers and fiscal shrikes** were seen. Troupes of **baboons** were seen here near the tops of steep sided valleys. A visit was made to the holy site of Debre Libanos and we were shown scenes of lush green farmland, quite different from the arid drought areas elsewhere in Ethiopia. From here a descent was made to the rift valley where the fresh water Lake Langano was visited as well as the alkaline Lake Abyata which offered a spectacle of about one million **flamingos**.

From the rift, the tour took in a rainforest area near Addis, where lots of birds and **vervet monkeys** were seen, followed by a climb up to the Gola Plateau with a highest point at more than 14,000ft. The rare mountain **Iyala**, a small antelope, was seen on the climb up to the high plateau and peak. Marked extremes of temperature are experienced by the specialised fauna which inhabits this harsh rocky environment which, with its frequent mists, was reminiscent of the Cairngorm plateau. Lots of exotic birds were seen here but also mammals such as the **Ethiopian wolf** (sometimes described as the **Simian fox**) which predate on the plentiful population of **grass rats** and the **giant mole rats**, always on the lookout for their arch-enemy, the **golden eagle**. The **golden eagle** was a surprise sight here, and especially when being mobbed by **Lanner falcons**. Two of the most interesting birds seen in this part of the country were rare **wattled cranes**, perhaps the world's tallest bird, and **blue winged geese**. These latter are endemic to Ethiopia and no closely related species has been found nearer than South America.

Bede Pounder

## SOCIAL EVENING - MONIFIETH HOTEL

27th February

Those of you who did not attend this annual event missed a really happy evening. On entering the room, on arrival, a sticky label was quietly stuck on our backs denoting an animal or plant; by a process of question and answer we then had to find out what we were. This obviously set our brains working and caused a fair amount of chatter and laughter as we endeavoured to find our origin.

From there we sat down at our tables, and instead of the anticipated buffet being put before us we received a number of specimens in jars to each of which we had to try and supply a name. Much fun was derived from this and those with x-ray eyes, or slightly dishonest, had a little help by reading the labels back to front! Least said the better as the next game involved sticking our hands inside various boxes to ascertain the contents thereof. A few of us had to pluck up courage to put our hands into the box, and one or two never did find that courage. This caused quite a lot of hilarity.

We then all enjoyed a delightful buffet supper, with no worries over quantity as there was plenty for everyone, and very tasty too.

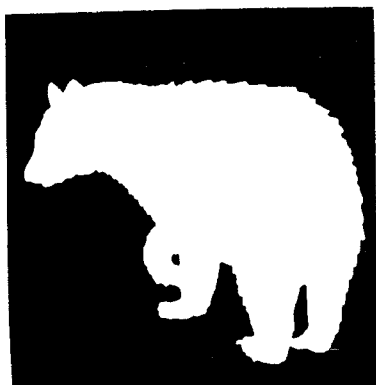
The next part of the evening was mainly slides which involved naming places shown on the screen. The room resounded with strange answers but the correct one was usually heard above the laughter. Yes, some of us did learn from all the fun. What a great way to learn something of nature.

We thank Jim Cook for organising such an entertaining evening and enabling us to get to know each other better.

Margaret McLaren

## CANADIAN WILDLIFE

From Calgary to Jasper National Park  
Brian Allan 3rd March



Arriving at Calgary airport, Brian was amused to catch his first glimpse of the wildlife, stuffed and on display on the luggage carousel. However, he did manage to catch on slide for us shots of the **lesser chipmunk** gazing at him with great curiosity, and a second one was seen appearing out of a hole in the ground. The lovely soft head of a **mule deer** gazed out gently at us, and a **black bear** was caught lumbering away into the woods. The **Columbia ground squirrel**, a gorgeous **swallowtail butterfly** and even a **hummingbird** were all captured on film.

The Kootenay Naturalists were very kind and helpful to Brian and Jenny as they planned their trails up and down this part of the Rockies. Lakes, rivers, waterfalls, snow, scree and glaciers all produced a wide variety of plants and flowers. One of Brian's favourites must be the lovely dark petalled "**Jenny Botanica**", tall and slender with multi-spotted leggings much favoured by the **mosquitos** - no respecters of beauty!

Slide after slide produced ever more beautiful pictures. There was **butterwort**, the lovely creamy-white **few flowered anemone** (*A. parviflora*), **red monkey-flower** and **river beauty** (akin to our own **rosebay willowherb**). Then there were **orchids** - **fragrant white**, **round leaved twayblade** and, the most enchanting of all, the **calypso orchid** (*Calypso bulbosa*) known as the **little fairy orchid** in Canada. Some fascinating names came with more plants, **brown-eyed Susan**, **shooting star** (*Dodecatheon pulchella*) and **Indian paintbrush**, a most colourful and variable plant of the figwort family.

Further up the vegetation zone were found and expertly photographed, **bronze bells**, **bunchberries** and **white, yellow and red heather**. The last, with its little red bells, was particularly beautiful. Then we were shown slides of **alpine speedwell**, **western spring-beauty** (*Claytonia lanceolata*), the yellow daisy flowers of **arnica**, **silky scorpion**, **arctic raspberry** and our familiar **mountain avens** (*Dryas octopetala*). The corms of the golden yellow **glacier lily** (*Erythronium grandiflorum*) are eaten by the local bears!

Brian and Jenny met with an unwelcome delay in their already short holiday at the ferry over Lake Kootenay. Two youths had stolen a car, driven it down the road and off the ferry pier into the lake. A story amusing in the telling but when we saw the retrieval of the severely squashed and mangled car it was a relief to learn that the youths escaped unhurt and were later well and truly caught.

So many beautiful slides of places and plants and mountains - Mount Burgess, famous for its soft fossils (see article in 1997 Bulletin, page 35), Mount Revelstoke where Jenny reached the top and a **Canadian ground squirrel** was seen; and lakes - Lake Louise, Lake Montane and Emerald Lake in particular. On behalf of a large company of avid spectators, Gordon Maxwell said, in his most warm vote of thanks "We had a most entertaining evening of amusing anecdotes and superlative slides - absolutely first class."

Roma Miller

## FROM THE GREEN TO THE GEAN

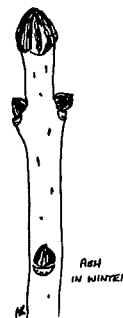
Saturday Walk at Tayport 7th March

What a lovely morning we had, sunshine all the way. More remarkable when we learned that one of our members had been stuck in a snowdrift outside Letham just the night before, and another coming by plane felt his last moment had come when the gale tossed them around like a loose ball in a game.

Sixteen keen members gathered at Tayport Harbour and set off on this glorious morning to hike up Spearhill Road to the viewpoint. **Corydalis** was spotted growing on a wall, also **spleenwort** and a **wall rue** fern. A **great tit** was seen and **mallards** were heard. All eyes scanned the sky only to come down again to somebody's back garden, where the ducks were spotted, expecting tit-bits, which, unfortunately, we did not have. Passing along the field track by one of Scotsraig's many fields a few **agates** were picked up, prompting great discussions on the cutting and polishing of same.

In amongst the first few trees - **ash**, **wych elm**, and **gean** - were found the leaves of the **arum lily** and plenty of **bramble** branches. A lovely specimen of *Tremella*, **witches' butter**, was found sticking to an **ash** twig. Further on **Jew's ear fungus** was much in evidence, and with its lovely dark velvety appearance it showed up well against the bleached dead wood.

We had a glorious view over the Firth of Tay and Tentsmuir Forest, and in the distance at Shanwell Farm we could see a great steaming pile of manure. Not pig manure, we were informed, as theirs



did not steam! Odd, when right beside the heap were a large number of pig pens Further on **skylarks** were seen, and also a **buzzard**

Leaving the field track, by the road past Scotsraig Lodge, **dandelions**, **forget-me-nots**, **oilseed rape**, **grey speedwell**, **sticky willie**, **fumitory** and **spear thistle** were all just showing There was also a fine specimen of **Corsican pine** growing near the road, and some **larch** and **Scots pine** **Many-zoned polypore** fungus, mosses and lichens and a fine example of **oyster fungus** were all viewed with great interest

Along a path by Scotsraig Burn we found **blue tits**, **greenfinches** and **coal tits** as well as **robins**, **yellowhammers** and a **dunnock** The **great tits** and **long tailed tits** did not appear this day. The golden **lesser celandine** shone brilliantly in the sun, and **sorrel** and **pussy willow** were spotted

Arriving at the bay beside the caravan park the tide was just right for us to see many waders **Golden plovers**, **godwits**, **grey plovers**, **redshanks**, **turnstones**, **eider**, **ringed plovers**, **dunlin**, **curlew**, **widgeon** and **mallard** were all there in fairly large numbers. What a sight. They were lovely to see

We pressed on to Harbour Road and into the Bell Rock Tavern where we all enjoyed an extremely tasty lunch.

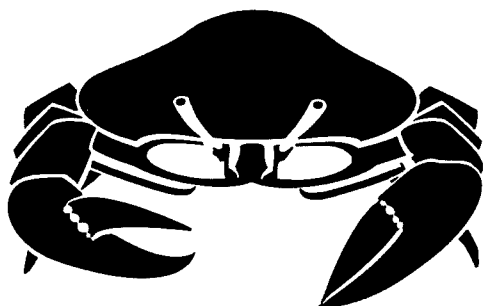
Roma Miller

## SUMMER OUTINGS 1998

### DEEP SEA WORLD

9th May

For our first Saturday outing, in case the weather is poor, the Society looks for a venue that is both sheltered and interesting As chance would have it, the weather was fair, but the visit to Deep Sea World was fascinating The party spent a lot of time in the main hall examining and marvelling at the displays in the smaller tanks of the tropical reef fish, **wolf fish**, varied **sea anemones** and the Amazon forest river with its 'daily' cycle of thunderstorm, sun and tropical night, every eight minutes. Then came the main part of our visit, the underwater nature trail. The tunnel under the main tank is more than 100 metres long and has a moving walkway to move visitors around Most of us made several circuits but stepped off onto the solid floor and stayed in one place for long periods. There was just so much to see Myriads of different fish glided by; **cod**, **saithe**, **mullet**, **blennies** and **dogfish**, while **flounders** and **rays** lay stolidly on the bottom, large **conger eels** peered balefully out of holes in rocks and **skates** settled down on top of the tunnel Shoals of **herring** swam puposefully overhead but the most impressive specimens were two large **nurse sharks** gliding around They were somewhat reduced in appearance, however by the thick curved perspex roof of the tunnel and it wasn't until we saw divers in with them that the true size of these fish became clear Feeding time, though, was not so impressive The sharks were obviously very well fed and it took some time for a diver to persuade one of them to take a fish and swim off with it. Afterwards it also took some time to shepherd everyone out and back into the bus for our own feeding hour The aquarium was an excellent place to visit



In the afternoon the bus took us a few miles up the coast to the Silver Sands at Aberdour. The tide, unfortunately, was rather high but we scrambled over the seashore rocks and poked around in the rock pools Peter Ellis and his son Patrick made most of the discoveries A number of **green shore crabs**, a couple of **hermit crabs**, a small **velvet crab**, **shrimps** and a single **beadlet anemone** were the best finds All were returned alive and unharmed to the sea We also picked out a variety of **periwinkles**, **limpets**, other shells and seaweeds The party finished off with a walk to the point to look out for seabirds - **gulls**, a few **cormorants** and one or two offshore **gannets** - and

to the top of the small hill for a view along the Forth. The walk back to the bus took us through carpets of **bluebells** and sprouting **bracken** with calling **blackbirds**, **robins** and **chaffinches** in the bushes.

Jim Cook

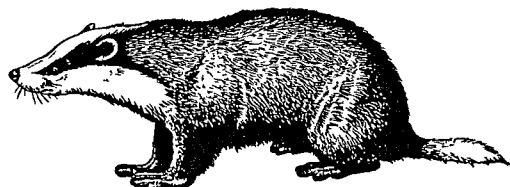
## CHATELHERAULT COUNTRY PARK

23rd May

Chatelherault is the hunting lodge of Hamilton Palace's great designed landscape. The pink sandstone lodge, built 250 years ago, is the only surviving building following a recent 10 year restoration programme. It provides an exotic feature above the picturesque Avon River gorge. Large tracts of undisturbed native woodland remain and several areas are designated SSSI. During our visit we sampled a few of the 10 miles of pathway, enjoying woodland plants such as **moschatel** (*Adoxa moschatelina*), **pendulous sedge** (*Carex pendula*), **enchanter's nightshade** (*Circaea lutetiana*), **wood club-rush** (*Scirpus sylvaticus*) (rare in Angus), **brittle bladder fern** (*Cystopteris fragilis*), **ground ivy** (*Glechoma hederacea*), **ramsons** (*Allium ursinum*), **golden saxifrage** (*Chrysosplenium oppositifolium*), **honeysuckle** (*Lonicera periclymenum*), and **green alkanet** (*Pentaglottis sempervirens*) which is fairly common but not native.

The Park woodland contains nine of the famous ancient Cadzow **oak** trees (300 in all) which are unique in Scotland. They are the remains of wood/pasture in a deer 'park' and are notable for their size, their twisted growth forms and their age. Although 'stagheaded' there is little evidence of management by pollarding. Individual stumps can be dated back to the 15th century and there is a high probability that they originate from primeval woodland. They exhibit characteristics of both *Quercus robur* and *Q. petraea*. Even the most casual observer cannot fail to be struck by their appearance and they aroused considerable interest among our members. Their shapes inspired awe and convinced us of their antiquity. The sketch of one individual tree on the cover of our guide leaflet was easily recognised by its unique features; an accurate portrait. Further pilgrimages to see these venerable trees in differing seasons would be well worthwhile. They may soon be obscured by plantings of young successors.

The Ranger told us that there were several **badger** setts in the Park. In spite of assurances that we would see lots of badger signs on our route we obviously had not got our eyes in and the time spent on botanical pursuits prevented us visiting the most visible sett which the Ranger had helpfully marked on our map. The ancient **white cattle** (four in number) were seen in the distance.



Margaret Duncan

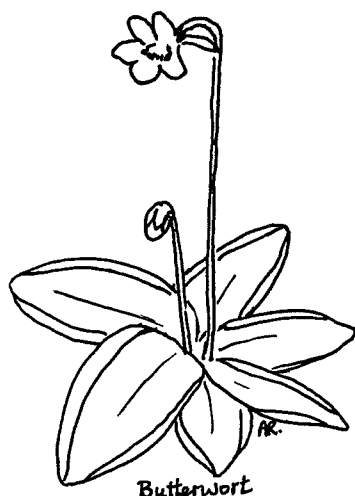
## LOCH LOMOND WEEKEND

5th - 7th June

Although the weather set the pattern for what turned out to be a rather damp summer, the party naturalised in fine style. Our first stop on Saturday morning was Balmaha where we had arranged a boat to take us out to Inchcailloch island. Once there, the winding path led the party up through damp and lush vegetation under spreading **oak** and **ash** trees, past exposed rock faces on the line of the Highland Boundary Fault and eventually up to the viewpoint. From the top we had good views of Conic Hill and the line of islands across the loch along the great fault. We sat virtually on the fault's boundary. Smirks of rain drifted by to reinforce the humidity but didn't affect us. In such a habitat, we spent time looking for **lungworts** on the bark of trees beside the path, but although there were festoons of other lichens, we didn't see any. Carpets of mosses under the **bluebells** and ferns, **large bitter cress** (*Cardamine amara*) with its tiny violet anthers, and the **wood sedge** (*Carex sylvatica*) reminded us of the dampness. Moira and Ken McGregor had gone on ahead and met the warden, who had informed them that at about noon they would have a good chance from the top of seeing an **osprey**. We settled down to lunch. Almost on cue someone said

"Is that an osprey?" and sure enough it was, not one, but two. One of them, however, seemed to have a distorted tail. Binoculars soon revealed the cause. The bird was toting a large branch that poked up through its rear feathers. The pair flew heavily right past us and gradually disappeared from view in the marshes at the southern end of Loch Lomond. Then the rain came on. We wended round the paths to the far end of the island and back past the old graveyard in a steady downpour. The party was well prepared but wasn't tempted to linger. But we remained alert. A number of us heard **wood warblers** calling and Davie Stein got a good view of a **redstart**. It had been a very interesting visit to a western oakwood that had been little grazed.

Just as the rain eased off the boat came back for the short journey back to Balmaha. We met up with the few who hadn't come over to the island and walked round the loch edge to the **serpentine** area below the small hill fort. A few of us ascended the steep and rough trails to the top, but the view over the water was rather grey. On the way back to the hotel at Arrochar the bus stopped for a rather damp half hour in Luss. A walk down the picturesque main street took us to the water's edge and round to the kirkyard to view a mediaeval hog's-back tombstone. It wasn't much comfort to be told, back at the hotel, that this was the first rain that they had had after a very dry spell of six weeks!



After a rather damp early Sunday morning the clouds lifted a little and allowed an interesting visit to Glen Sloy. We left the bus at the viewpoint on the lochside, near the power-station, and laboured up the steep first part of the road in the glen. A good variety of bog plants could be seen at the roadside, clumps of **butterwort** and patches of **sundew** with a few **northern marsh orchids**, carpets of **bog asphodel** and thickets of **bog myrtle**. The birds were good as well and the sun even made an appearance for a brief spell. **Sandpipers** could be heard and were eventually seen flitting along the river, **ring ousels** called out from the rocks on the hillside above and **tree pipits** parachuted down, calling all the while. A few **buzzards** were seen above the far crags and what could have been a **peregrine falcon** called once. A few **clegs** flew about but fortunately we were a little early for **midges**. Shelagh Gardiner found the best insect - a resting **golden ringed dragonfly** (*Cordulegaster boltonii*) - and in

good condition too. Most of the party made it up to the reservoir but only a few brave souls almost reached the summit of Ben Vorlich. On the way back several of us had excellent views of a **wood warbler** calling lustily but shyly in a large **oak** tree.

Once back on the bus we had lunch and travelled via Crianlarich towards Loch Tay. Just before Killin the heavy dark clouds tore apart and 10 minutes of stotting rain left pools of water everywhere. The Falls of Dochart didn't seem any higher than usual but the path we took down to the edge of Loch Tay was so flooded that it was difficult to negotiate, even in boots. Even so, the loch itself was surprisingly low and several members were able to walk out to the **crannog** without much difficulty. The rest of us stayed on the shore and relied on binoculars to examine the piles of boulders and the narrow neck of land leading out to it. The sun came out strongly and emphasised the contrast between the flat and calm green fields at the head of the loch and the view out over the water into the blue distance with the dark looming cliffs of Ben Lawers and Meall nan Ptarmachan above us. It was a terrific way to finish off a damp but highly interesting and enjoyable weekend.

Jim Cook

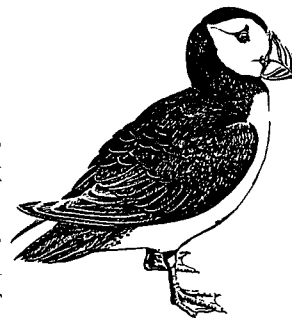
## ISLE OF MAY

13th June

I doubt if I can think of a better place for a Nats outing than the Isle of May on a day in June when the sun is shining, and it shone for us on this particular day. The sea was especially good to us, being just choppy enough to make it interesting to look at, but not choppy enough to resurrect the fish suppers some of us had consumed during the long spell before setting sail.

There was always something of interest on this trip across in the *May Princess*, with **herring gulls** flying lazily along our track and yet still managing to overtake with ease as they transported

scavenged morsels from Anstruther to hungry chicks on the island. Flights of fat **gannets** crossed our bows at intervals, and **auks**, especially **puffins**, became more and more numerous as the island was approached. Rounding the North Ness, we entered a scene of wild activity. **Puffins** whirled this way and that above our heads, often like swarms of gnats, and it took only minutes for one of the party to increase his number of 'puffins seen' from two to about 80,002! **Herring gulls** and the odd **lesser black backed gull** wheeled about amongst the puffins, with eyes always on the lookout for unattended eggs and chicks. **Oystercatchers** chased the gulls relentlessly when they felt that their eggs were being targeted, and **shags** blundered throughout the whirling throngs in apparent disregard for their own safety or that of others. How these managed to avoid colliding with 'sprays' of puffins which would appear from nowhere like bursts of machine-gun fire into the meandering paths of the shags was impossible to understand. Below the aerial chaos, groups of **eiders** snoozed and preened on the rocks, sometimes giving vent to a few gentle coos, and **rock pipits** went about their business in quiet unconcern of whatever went on around them.



The May Island slopes gently from the high cliffs along its western side to sea level on the eastern side along which we sailed towards Kirk Haven. From what I had read, I expected to see its surface covered in a red blush of **thrift** with pockets of **sea campion** here and there. However, we were met by an exactly opposite scene everywhere were enormous drifts of the **campion**, giving the impression from a distance that the island was snow covered, with only very small clumps of the **thrift**, most of which was past flowering.

After landing, we set off on our different ways, making sure to keep to the marked paths in order not to step on sitting eiders or damage the myriads of puffin burrows, but this constraint led to a severe restriction on the scope of the botanists in the party. However, plenty of flowering plants were logged in addition to those already mentioned. Both **silverweed** and **hogweed** were in flower in places (the latter being rather earlier than hogweed on the mainland), as were **common sorrel**, **chickweed** and **mouse-ear**, and a few each of **buttercup**, **lesser celandine**, **tormentil** and **dandelion**. Others, not yet in flower, included **nettles**, **thistles** (creeping and spear), **burdock**, **ragwort**, **scentless mayweed**, **ribwort** and **buckshorn plantains** and **common violets**. I looked in vain for **common scurvy grass**, but noticed samples of a much smaller leaved variety which I took to be **Danish scurvy grass** (*Cochlearia danica*), a speciality of the May. Many bare rock surfaces were resplendent in the orange-yellow **lichen** *Xanthoria* which looked very pretty in places such as the small rocky neuks alongside the engine sheds on Fluke Street where it occurred with tussocks of **thrift** and **stonecrop**.

A colony of **arctic terns** was observed on high ground behind the high cliffs, in light which showed their rather dusky underparts to good effect as they screamed and harried gulls foolish enough to encroach upon their territory. On the western cliffs themselves, everything was once again all noise and activity. **Kittiwakes**, seemingly plastered to narrow ledges, screamed at others of their kind wheeling in the updrafts from the waves, **fulmars** och-och-oched, **guillemots** and **razorbills** grrrrr-ired and **shags** barked croakily at chocolate-brown offspring about as big as themselves. It was good to see that shags seem to have recovered from their population crash of a few winters ago. At one spot, the Altarstones landing, we were able to watch all these species at close quarters, and wondered how the dapper little male **razorbills** could identify those they were chasing as females. Some very small pink flowers were seen near this landing. They were too inaccessible for positive identification, but were probably **sea milkwort** (*Glaux maritima*).

Any trip to the May Island is sure to provide a sight of a rare or unusual bird. This trip was true to form, but the speciality was nothing more exotic than a **turtle dove**.

On leaving the island, we sailed round the South Horn where we watched a group of **grey seals** among which were some handsome bulls, and then along the base of the cliffs to observe the numerous vertical sided slot-caves and arches which showed to good effect how the sea goes about its business of erosion, by taking full advantage of the series of vertical fractures in the rock, all of which trend at right angles to the long axis of the islands.

To add a little spice to a perfect day, we had a good view of a cruise liner out of Leith, steaming serenely along the dark cliffs against which its gleaming white shone out brilliantly in the bright sunlight. What a spectacle to be enjoyed by those fortunate passengers on board so soon after starting on their holiday!

## GLEN MARK AND THE QUEEN'S WELL

27th June

When we boarded our coach at Dundee the weather was overcast but fair, and it was with high spirits that we headed up the A90, past Forfar and Brechin to turn off towards Edzell and Glen Esk.

By the time we reached the car park at Glen Mark it was really chucking it down so the walk to the Queen's Well was a bit on the bleak side. We did make the most of the day and a number of plants were noted although recording them on paper was not possible. Those plants of note include **petty whin** (*Genista anglica*), **heath spotted-orchid** (*Dactylorhiza maculata* ssp. *ericetorum*), **butterwort** (*Pinguicula vulgaris*) and a number of ericaceous plants. The **bell heather** (*Erica cinerea*) and **cross-leaved heath** (*E. tetralix*) were at their best.

Lunch was taken at the well, and the sight of a couple of dozen Nats huddled under the well's arches trying to keep their sandwiches dry was a sight to see. We soon headed back and as the rain petered out we saw a few spikes of **fragrant orchid** (*Gymnadenia conopsea* ssp. *borealis*). Back at the coach the weather had cleared so we walked towards Loch Lee to view the castle and the small graveyard near the loch. We then had to retrace our steps to the coach for our return to Dundee.

Brian Allan

## SIDLAW WALK

11th July

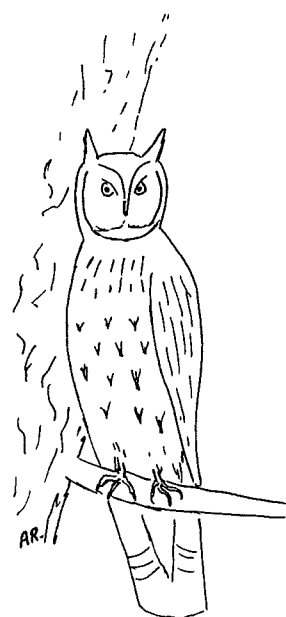
This full day walk involved members in one of the shortest bus trips ever. The journey to the Sidlaw Hills, to the north of Dundee, took about half an hour. The complement of about 30 was supplemented by another half dozen or so who arrived by car. The first surprise was the realisation that very few members actually knew the area well, and indeed many had never been there before. A surprise was in store when, very early in the walk, a **long-eared owl** was spotted by myself against a backdrop of **gorse** and **broom**. It appeared to be sound asleep, and the company eventually approached to within about 30 yards. Those with binoculars had fine views of this uncommon bird for this area. The **short-eared** is much more common and often flies by day.

The sunny weather was now bringing out the insect life and butterflies were appearing, including **meadow brown**, **ringlet**, **common blue**, **dark green fritillary** and **small heath**. A short detour was made to show those interested the site of a colony of **northern brown argus** and they duly obliged by their presence. Though basically a hilly country species, they are surprisingly also found on sea cliffs in Fife where their foodplant, **rockrose**, is found. Birds such as **stonechat** and **whinchat** were also making their appearance and the distinctive call of the **buzzard** was heard. Back to ground level again and a few nice looking **horse mushrooms** were spotted by hungry eyes. Unfortunately the **maggots** had got there first! Some stopped to admire a clump of **mountain everlasting** (the only one I know of in the area) which is more common in the higher moors of the glens.

We were now circumnavigating Auchterhouse Hill and most of the feet present voted to stop at an old stone bothy for a break. This happily was also the site of a strong colony of **green hairstreak butterflies** which can be seen only during their flight period in April to May. Soon after this break the party split up, some returning via the gap by Auchterhouse Hill, the rest continuing on to view the site of a **black grouse** lek. On return to the bus we heard that Bede Pounder had seen a **painted lady** bringing the butterfly total up to nine species. A **common lizard** had also been spotted by Jenny Allan.

The weather had been kind to us in what was to prove to be a very wet year (the next day was atrocious) and many vowed to revisit the area if possible.

Footnote. the **long-eared owl** was still there six hours later in the same spot, sound asleep. There is no truth in the suggestion that I tied a stuffed one on with string!!



Gordon Maxwell

## QUARRY BARBECUE

21st July

We only decided to go at the last minute because the weather had been so horrible recently. Mummy, Daddy, Mary and I all went to the barbecue. Thankfully it wasn't raining when we arrived but it soon was yet again.

We walked along with some other people and we soon found Doug because all we had to do was to follow the smoke from the barbecue. When we got there my Daddy started to pull ragwort.

I went with some other people to see the fence that Mummy, Mary, Jim, Ewan and I wove earlier in the year. Two of the posts had actually sprouted.

Then we had our food and as soon as Margaret came back Mary, Margaret and I all hid in Margaret's huge plastic bag tent out of the rain.

Christine Reid (age 8)

## MORRONE BIRKWOOD

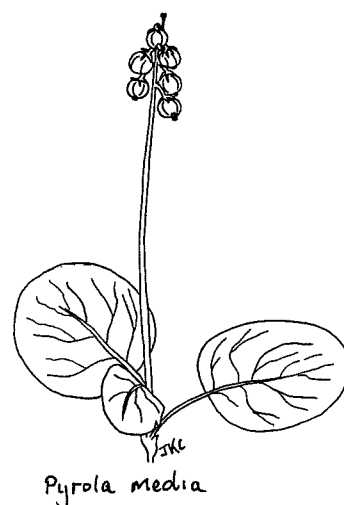
25th July

The disappearance of the Quaternary ice sheets from the Cairngorms between 6,000 and 8,000 years ago left behind sheets of fractured and ground-up rock debris which, in what is now the Braemar area, were rich in chemically basic **schists** and other calcareous rocks. Species rich grasslands were quick to develop on this initially hostile surface and supported herbs such as **viviparous bistort** (*Persicaria vivipara*), **yellow saxifrage** (*Saxifraga aizoides*) and **rockrose** (*Helianthemum nummularium*), before leaching had time significantly to diminish the mineral content of the soils. In time, the grassland gave way to a **downy birch/juniper** scrub in which **bog myrtle** (*Myrica gale*) would have flourished in wet clearings. All these and other species have left clues of their former presence in layers of pollen, still preserved in peat deposits, which can be studied by researchers such as Hilary Birks from whose work it appears that what is to be seen on the slopes of Morrone Hill today is probably not very different from what was there about 7,000 years ago.

On this outing 33 members of the Society were privileged to have had an opportunity to experience the ambience of this unique place and take in a vista of what is literally *Natural History*. All the species mentioned above were to be seen in abundance, along with others which reflected a variety of soils from acid to basic, well drained in some places, wet or waterlogged in others.

Boggy and marshy terrains were resplendent in **viviparous bistort**, **yellow saxifrage**, **bog asphodel** (*Narthecium ossifragum*), **bog myrtle** and in places, **early marsh** and **fragrant orchids** (*Dactylorhiza incarnata* and *Gymnadenia conopsea*) which were just a little past their best. **Scottish asphodel** (*Tofieldia pusilla*) was also found but this, while actually being at its best, left a lot to be desired in terms of visual spectacle. **Slender St John's wort** (*Hypericum pulchrum*), **louseworts** (*Pedicularis sylvatica* and *P. palustris*), **cotton grass** (*Eriophorum angustifolium*) and *Sphagnum* sp. were also common, with **sundew** (*Drosera rotundifolia*) sporting diminutive white flowers often found in association with the sphagnum. **Marsh arrow grass** (*Triglochin palustris*) was also recorded, but lower altitude wetland plants such as **ragged robin** (*Lychnis flos-cuculi*) and **cuckoo flower** (*Cardamine pratensis*) were totally absent here. Some basal rosettes of **marsh thistles** (*Cirsium palustre*) were seen, but there was a surprising lack of large upstanding specimens. In places, the degree of water led to permanent pools in which **marsh horsetail** (*Equisetum palustre*), **bogbean** (*Menyanthes trifoliata*) and **pondweeds** (*Potamogeton* spp.) were seen, as well as small **pond snails** which only thrive in water with a high calcium content.

Open ground had a good covering of **ling** and the **bell heathers** (*Erica cinerea* and *E. tetralix*) which afforded shelter to **downy birch** (*Betula pubescens*) saplings and typical northern woodland species such as **chickweed wintergreen** (*Trientalis europaea*) and the **true wintergreens** (*Pyrola media* and *P. minor* and *Orthilia secunda*), with *P. media* being by far the most common. Heather also sheltered **melancholy thistle** (*Cirsium heterophyllum*), as did **juniper**, in both





grazed and dense ungrazed areas of vegetation. A single specimen of **frog orchid** (*Coeloglossum viride*) was also found at the edge of a path through the heather



*Alchemilla alpina*

Drier areas were rich in **tormentil** (*Potentilla erecta*), **eyebright** (*Euphrasia* sp.), **milkwort** (*Polygala vulgaris*), **selfheal** (*Prunella vulgaris*) and **heath bedstraw** (*Galium saxatile*), and the montane climate of the hill was made evident by the appearance of **northern bedstraw** (*Galium boreale*), **alpine lady's mantle** (*Alchemilla alpina*) and **viviparous fescue** (*Festuca vivipara*).

We had hoped to see butterflies, but the weather was too dull and cold for any to be on the wing, but surprising single sightings, one of each, were reported of a **dragonfly** and a **lizard**. Birds were also few and far between, with even **meadow pipits** advertising their presence only by means of the odd cheep on most occasions. However, the day ended with an exotic, very large and colourful bird - a **peacock** - calling loudly from a cottage rooftop to its mates in the garden below

The ungrazed sections of Morrone birchwood have an evocative primordial aura which, when one gazes into their depths, almost grips the soul with the realisation that here one is able to reach back across the millennia to times before the arrival in this land of our post-glacial stone age ancestors. They provide an experience which can be moving in the extreme

Bede Pounder

## EARLSFERRY TO SHELL BAY

8th August

Buzz, buzz, buzz. Three busy Nats buzzed round the Tayport buzztop. "Where iz that Zizzlers buz?" We were all drezzed up to go viziting. "Buzz," said one, "What time iz it?" said the other, "Buzz, I'm off to get the buzzmobile," and they all three zet off on the beeline for Earlsferry. There they met up with all the other buzzing Nats awaiting the arrival of their offizer in charge.

(Translation - Owing to a slight mix up three of us were left stranded in Tayport When we decided nobody was coming for us we got the car out and dashed off to Elie As it happened the coach driver wasn't very sure of his way so gave the main party a scenic tour of Fife All in all we arrived only minutes behind them!)

It was a truly glorious day and, after having decided who was energetic and who was not, the bus departed for Shell Bay caravan park with those who preferred not to tackle the very steep climb to the top of the raised beaches The others set off after having been thoroughly warned not to tackle the chain walk via the rocky shore - what with slippery rocks, tides in, perhaps unsound chain fixtures and with visions of broken ankles and helicopters being called out - no one, but NO ONE, was to go that way However, being Dundee Nats, we got the hottest and most glorious day of the wettest summer on record The tide was out and the rocks were dry, so off we went to the awesome spectacle of Macduff's Cave

The foreshore and steep bank stretching up to the topmost part of the **raised beaches** were awash with flowers and plants and grasses of so many kinds - **viper's bugloss**, **orache**, **hare's foot clover**, **scentless mayweed** and **restharrow** to name but a few The most lovely, I thought, were the dark crimson-red blooms of the **bloody cranesbill** and the delicate purple glory of the **greater knapweed** heads Reflecting the sun were the glorious heads of **ragwort**, and tucked away but shining out were the little yellow **rockroses**.

Reaching the top we had lunch, having missed out on tea with the **Duke of Argyll**, not having found his **tea plant**! The view was magnificent, the Bass Rock and Firth of Forth beyond Elie and Earlsferry in the foreground. It was pointed out that the bay beneath us, with its caves and vents, was the mouth of an **old volcano** - a geologists' delight. We watched a **kestrel** hovering about and found a **pheasant's** nest with six broken eggs How many of the little ones escaped to maturity?

Refreshed, we wandered on round old wartime gun emplacements and searchlight batteries. Clumps of **hemlock**, **burnett saxifrage**, **rosebay willowherb** and **sea wormwood** were noted. The pungent aroma of the last did not seem to affect the dozens of butterflies fluttering around - all three

pungent aroma of the last did not seem to affect the dozens of butterflies fluttering around - all three **whites**, **small heath**, **tortoiseshell**, and a **common blue** were all caught in the blink of an eye. The blue was such a lovely colour, like the **harebells** and **germander speedwells**

We could now overlook Shell Bay, the caravan site and even our bus. Shell Bay itself is the most unattractive of the small sandy beaches with too much seaweed of the soft green variety both in and out of the water. The rocks offshore were however much used by the birds and there was a great swathe of white feathers for quite a few yards. **Shags** were offshore in hundreds and **terns**, **black headed gulls** and **eider** were also seen

Shooters Point was cut off by the tide so we crossed Ruddons Point to the salt marsh by a well worn track studded with **cowslips**, over of course, and a **frog orchid**, also finished flowering, was discovered. Here we also found a tiny white starry flower, so lovely against the green bank, a **knotted pearlwort**. The salt marsh area would need to be studied another time and perhaps earlier in the year. Time was wearing on and we were wearing out.

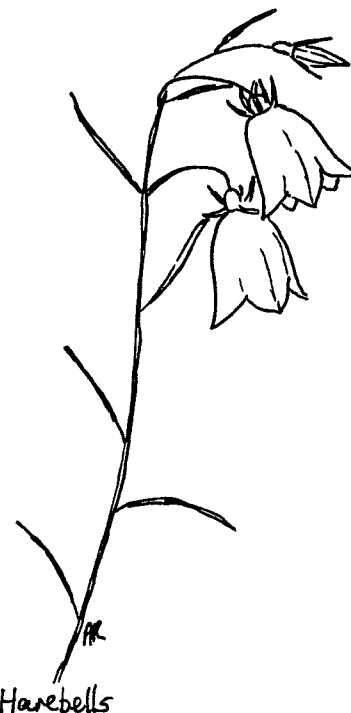
The area on the bank of the Cocklemill Burn was a mass of flowers and gave way to a carpet of **thyme** and **eyebright**. The sandy cliffs were spectacular. **Wasps** were in evidence busy around the entrances to their homes in the cliff face. A few **sand martins** were flying in and out of their little abodes. A small sandy bank was seen to be studded with holes, "Worms", suggested one, no, homes of the **solitary bee**

The whole area abounded with butterflies, at least ten **red admirals** were counted strikingly showing up against the **ragworts** and the **pine trees**. **Meadow brown** and **small heath** fluttered here and there and **whites** seemed to skip around on an upper level. A **small copper** was spied and brightly coloured **burnet moths** were well in evidence. Among the many **blues**, two caught our particular attention. They seemed to be stuck together, "Being naughty", suggested one, "Enjoying themselves", offered another, "Cavorting", to use the latest local word! Whatever, their photos were taken, on hands and knees and nose, to capture this delightful sight. The markings on the underside of the wings were worthy of a photo in their own right.

On a little further and through the top of the caravan site back towards the bus, but not yet. Odd bird noises were heard like a mynah imitating sounds it had heard. True Nats to the end, we followed the sounds and there they were, two beautiful **African grey parrots** enjoying their hols at Shell Bay Caravan Site.

The other half of our party started from Shell Bay in the most civilised manner by having coffee first in the wee restaurant. They added to our store of information by naming **sparrowhawks**, **fulmars**, **annual bugloss** and a site of at least 50 or 60 **frog orchids** among their many finds. A **Scotch argus butterfly** seemed to be the best sighting, and a sundowner back at the local finished off their day to a (G and) T

Roma Miller



## MYSTERY TOUR

22nd August

The mysterious locality this year was darkest Fife. Where were we headed for? At least it was a good day. The bus took us over the bridge and south on the Kirkaldy road. We weren't on it for long, though. We soon turned up a narrow road and over a few small bridges. 'I wonder if they'll take our weight?' The sun came out and we pulled into a small lay-by. Where the heck were we? On the side of Balmullo Hill and heading for Cuplahills Community Woodland. Most members had not been there before and found it a fascinating place to visit. The former president had contributed, a few years ago, to the public consultation about the site. He'd made several suggestions which the planners had acted upon. They had left areas of **gorse** for nesting birds and we were able to watch

the birds in action. A number of small species - **chaffinches**, **blue tits** and a couple of **goldfinches** among others - flitted about. A wide variety of native trees were growing strongly and a variety of smaller herbaceous species, including an interesting **mullein**, were found. The woodland was developing rapidly. Well worth another visit.

A great start to the mystery tour, but we'd only seen one site. Where to next? The bus trundled down a number of small roads and took us through Cupar and then Pitscottie. Were we heading for St Andrews? Yes, but the bus didn't stop, as some members hoped. That coffee shop looked so inviting! Our next stop was in an even smaller lay-by beside a cottage in the wilds of the East Neuk. The owner, Tim Flynn, was out but had invited us to come in and visit the woodland he'd organised to have planted about ten years ago. Several members had, in fact, contributed directly and planted several hundred trees each themselves. Very different from Carsegowniemuir! A few of us remember that day all too well. It had been pouring wet, ideal for planting! Today, however, it was fine and warm and we strolled around identifying species such as **southern beech** (*Nothofagus* sp.), **rowans**, **birches**, **sycamore** and a variety of **willows**. Clumps of **northern marsh orchids**, although mostly over, enlivened the undergrowth. Even though the ground was good, trees had died off in areas. We were unable to come to a conclusion why. Meanwhile, Gordon had been fortunate to see an excellent large **dragonfly** but it didn't stay long enough to be positively identified.

'It's nearly lunchtime!' But where are we going next? Past the Secret Bunker site and down to Crail. A small sheltered grassy spot looking out over the bay was ideal for a bite or two. The party then began to explore along the foreshore towards Anstruther. The more active walked all the way and took in fantastic rock formations en route. A wide variety of littoral and cliff-side plants and birds held our attention, including a clump of **giant horsetail**, a rare plant in this part of the world. Very few members had been on this particular stretch before. We all met up again by the Fisheries Museum. There wasn't time enough to go in, but time enough for a cooling ice-lolly! The afternoon was well on but there was still time for several visits yet.

The loch at Kilconquhar (can you pronounce it correctly, dear reader?) was the next port of call. We stalked quietly through the bushes and peered out over the water. A good number of **mallards**, **tufties**, **coots**, with a few **pochard**, **shovellers** and a single **dabchick** rewarded our stealth. 'Back to the bus quickly, time is getting on.' By this time we were heading generally back in the direction of Dundee but the bus pulled into Leslie and we all trooped over the village green by the Kirk. What was this large stone ahead of us? A **bull baiting stone**, that's what! In medieval times the locals would tie a bull to it and then set dogs on the poor beast. The deep groove worn by the animals' chains is still clearly visible. We just ran out of that precious commodity, time. Several other sites could have been visited - and they had been planned for - but Dundee was beckoning. Ah, well, another time perhaps. We'd all greatly enjoyed the fascinating and varied day. Dorothy Fyffe was the well-deserved winner of the mystery quiz and was rewarded with a mysterious prize.

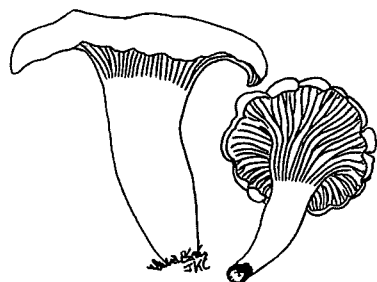
Jim Cook

## DEN OF ALYTH AND CADDAM WOOD

FUNGUS FORAY

19th September

With the furthest point on our journey being adjacent to Kirriemuir, this was another Nats outing almost on our doorstep. The complement of just over 30 left Dundee on a beautiful morning, weather which persisted for the whole day. A detour on the Coupar Angus road took us along Harefield Road, which was fortuitous, as I had spotted a **peregrine falcon** on Cox's Stack, a well known Dundee landmark, before leaving home. The falcon had remained there until the bus came along, and afforded an unmistakeable silhouette on its ledge high up on the stack.



Chanterelle

Alyth Den was reached in approximately half an hour and the walk commenced to the pleasant smell of the many **sweet cicely** plants present. Very soon, various fungi made their appearance. Not far into the den a few **earth balls** (*Scleroderma verrucosum*) were spotted, then an *Otidea* species was found by Margaret MacLaren. (This is a cup type fungus, sometimes called a **hare's ear**.) Near this spot a few withered orchid stems were seen and identified by Jim Cook as **bird's nest orchids**. Fungi were

coming thick and fast now. Space does not permit an exhaustive list, but some of the more unusual ones were *Leotia lubrica* (**jelly babies**), *Lentinellus cochleatus*, *Neobulgaria pura* (a purplish-brown jelly like fungus), *Mycena acicula* (tiny with a brilliant orange cap), *Scutellinia scutellata* (**eyelash fungus**), *Lepiota clypeolaria* (small parasol type), *Amanita crocea* (an edible species), *Hebeloma radicosum* (large, considered rare in some books) and *Helvella lacunosa* (contorted stem and cap).

Such were the attractions of the Den and the good weather that I was easily persuaded to allow an extra half hour to the lunch break before moving on to Caddam Wood. Many of the fungi found at Alyth were duplicated at Kirrie, but a number of new species were found here. A notable one was *Cordyceps ophioglossoides*. This is a club-like fungus which rewards careful excavation as it is parasitic on subterranean *Elaphomyces* species (earth ball like tubers). A few edible species were found here such as **hedgehog fungi**, **chanterelles**, and *Boletus edulis*, but in general it seemed to be a poor year for edibles (*Boletus* in particular) despite a very damp late summer. A small prize was awarded here to Hasso Cezanne for his unusual *Otidea* species.

At the last count, around 70 species were recorded for the two venues. I'm sure that if no one remembers all the Latin names being rattled off, at least they will remember the excellent weather and the good company.

Gordon Maxwell

## AUTUMN MEETINGS 1998

### A DECADE OF EXPEDITIONS TO THE RAINFORESTS OF TRINIDAD

Dr Steve Hubbard 13th October

Approximately forty-five members attended this, the first meeting of the '98-'99 winter programme. Dr Hubbard started by outlining the object of the work and described the flavour of biological, botanical and ornithological data obtained over the decade and the difficulty of obtaining good quality data to help counter the threat to the forests. Trinidad does however enjoy some benefits by comparison with the world's other rainforests. The mountains of the northern part of the island rise to about 3000ft and have a heavy rainfall. The precipitous nature of the slopes has discouraged exploitation by farmers and, because the island enjoys some financial benefit from offshore oilfields, tourism has not been developed to any extent. One of the main dangers to the Trinidad rainforests comes from the quarrying of limestone, mostly for roadstone. Dr Hubbard showed a slide of a 'scar' on the hillside, due to quarrying, which was thirty years old and still showed no signs of regeneration of the vegetation. This, he explained, was due to the fact that the nutrients required for regeneration and growth are not held in the soil but in fallen vegetation and insect life.

Dr. Hubbard then talked about the practical and personal problems the team had to face. Most of the research was concerned with the diversity of the wildlife, some examples of which were **epiphytes** and their methods



of obtaining the carbon on which they depend. **Leaf-cutting ants** were described, and the strange **snake-lizard** which lives in the base of the nests and gets protection from the ants which are ferocious biters and very effectively repel invaders. Other examples of the local wildlife are edible **land-crabs**, which are plentiful, and **bird-eating spiders** which are fairly common visitors to the comforts of the indoors. These do not confine their diets to birds but will eat anything small enough for them and since these spiders are very large, some birds may fall into this category. Some of the local snakes are very dangerous, for example the **pineapple snake**.

Most of the insects and birds spend their lives high up in the canopy and so it was necessary to go up there to trap them. The method adopted by the team was to use cross-bows to fire bolts up into the canopy and to haul up successively thicker ropes until they were able to climb up and then haul up all the equipment, such as mist nets, by the same means. The island is host to the world's largest **turtles** which come to lay their eggs on the beach. Although it is banned, poaching of the

eggs and butchery of the turtles still goes on and one of the methods used to discourage the poachers is to give publicity to the annual shore visit and to encourage sightseers at the beaches.

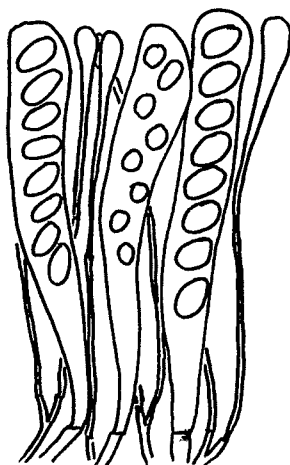
Dr Hubbard concluded with a brief description of life on the expedition. For example everyone was expected to rise at about 4.30am, work in the field until about 6.00pm and compile notes and records in the evenings, for sixty to seventy days without a break, in high humidity and temperatures. Clearly only for the fit and dedicated! He finally expressed his hope that one of the outcomes of the research would be a better understanding of the needs and importance of conservation of the rainforests.

Doug Palmer

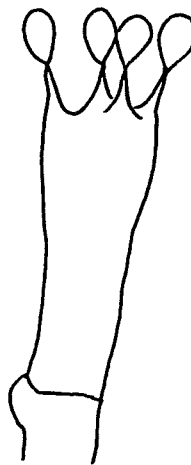
## **FUNGI: THE FORGOTTEN KINGDOM**

Tony Wilson 27th October

Mr Wilson, County Recorder for macrofungi in Fife, delivered a fascinating account of these mysterious and important organisms. He concentrated on two main groups: the Basidiomycetes and the Ascomycetes. With the help of overhead transparencies he touched on their biology, ecology, conservation, folklore, history and gastronomy. He concluded with an attractive selection of colour slides depicting the variations within species (and the consequent need for careful study of all features) and the overall variety of macrofungi to be found.



Ascomycete



Basidiomycete

Fructing structures

His delivery gave added emphasis to features possibly glossed over in guide books and absorbed the attention of all who attended – whether fungus fanatics or not. He advised following the wild mushroom pickers Code of Conduct and provided a number of copies. In particular when collecting for the pot it is recommended that no more than half the fruit bodies of a single species present are picked and no button mushrooms taken. When picking for study one should try to identify as many fungi as possible in situ, collect the minimum amount of material, avoiding repetitive picking, and try to return discarded material to the collection site. A flat open basket is the best receptacle as this minimises the development of bacteria and also allows dispersal of spores. Mr Wilson advised learning to recognise the poisonous species first. Out of approximately 3000 species of macrofungi in Britain there are only about six deadly poisonous ones and about twelve edible and excellent species.

At the conclusion of the talk a great deal of interest was shown in the large collection of field guides and identification keys on display.

Margaret Duncan

## KINNOULL HILL

7th November

This short Saturday morning walk in the Kinnoull Hill, Deuchny Wood area, was followed by lunch at the Glencarse Hotel. The day was rather overcast but nevertheless 18 people turned up at the Jubilee car park between Kinnoull Hill and Deuchny Wood. A few took the more popular Kinnoull walk, but most took the Deuchny Wood option. Not much in the way of wildlife was seen apart from a few of the more common birds. One interesting sighting was of a fairly rare mushroom, *Phaeolepiota aurea*, a rather large attractive agaric recorded a few times in Angus by the Society's fungus enthusiasts. However, the walk had the desired effect of creating a good appetite for the lunch at Glencarse, which seemed to be well received. At least one person suggested having more of these social outings.

Gordon Maxwell

## TRILOBITES: ARMoured ARTHROPODS FROM THE PALAEOZOIC ERA

Dr Alan Owen 17th November

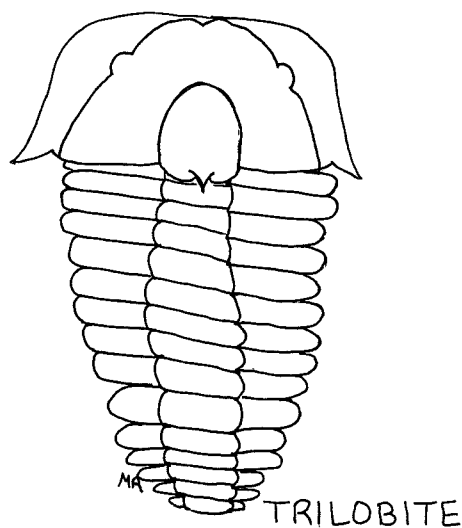
Dr. Owen started with a brief description of trilobites, "extinct marine arthropods with a calcium carbonate armoured shell". They are composed of three longitudinal lobes (hence their name), and into three transverse segments, a head, a thorax and a tail. As with all animal fossils the soft parts are seldom preserved. Trilobites grew by discarding the old shell and growing a new one, thus many of the fossils found may be the preserved remnants of the exoskeletons of the same animal. The abundance of fossil trilobites does not necessarily reflect the abundance of trilobites since different shells may be different stages in the growth of the same animal.

Trilobites first appear in the fossil record about the beginning of the Cambrian period (about 550 million years ago) and continue until the beginning of the Permian period (about 280 million years ago). Thus they survived on earth for about 270 million years. Trilobites have compound eyes and, unusually, calcite lenses which would have distorted their vision due to double refraction but somehow they managed to overcome this. Despite their bony exoskeletons they had flexible bodies which allowed them to burrow into the sand to take refuge from predators. They were however fairly heavily predated and statistics appeared to show that they were attacked predominantly on the tail and right side. This peculiarity could not be explained and it has been suggested that more successful attacks occurred to the head and left side thereby leaving the less successful attacks to the tail and right side to posterity in the fossil record.

The most persistent evolutionary route revealed by study of all the fossil trilobite species seems to be the deep water species, typically those which lived off the continental shelves, and thus, because of their persistence, are useful for the correlation and dating of rocks. Examination of the global distribution of trilobites provides evidence to support the Plate Tectonic theory of crustal movement, and from this it becomes apparent that Scotland was part of the North American continent during the Ordovician period.

Dr Owen had a small collection of fossil trilobites and these were enthusiastically examined by some members of the audience after the talk.

Doug Palmer



## CONTRASTING COLD - ANTARCTICA AND SPITZBERGEN

Professor Dick Byrne 1st December

Professor Byrne took us on a real journey of discovery by showing us slides of his trips to the Antarctic and Spitzbergen. Both were holiday 'cruises' on ships of Russian origin of the Professor class, which are ice resistant but not ice-breakers. There were only about 35 passengers on the trips which made for a very friendly atmosphere aboard and ensured that full participation in trips was easy.

After flying to South America and then on to Ushuaia on Tierra del Fuego they joined the ship and headed across the Southern Ocean to the South Shetland Isles and the Antarctic Peninsula. Various landfalls were made on islands and ice floes by inflatable Zodiac craft, when conditions permitted. Much wildlife was seen at close quarters - notably the large colonies of **penguins** of various species, including **Adelie**, **chintrap**, **gentoo** and a few **macaroni** (these are commoner in more temperate areas). These penguin colonies can be easily spotted from afar as the whole areas have a pinkish tinge from the **krill** coloured droppings which accumulate there.

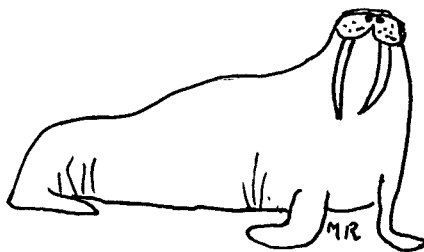
**Albatrosses**, **petrels**, **elephant seals**, **Weddel seals** and **crabeater seals** were some of the species also seen at a number of different locations. There are only two species of higher plants in Antarctica, **antarctic hair grass** and a **pearlwort**, though there are abundant **lichens**.

A wonderful close view of ten to fifteen **humpback whales** bubble fishing was had, as the Russian skipper knew exactly how close he could go to the whales by the position of the bubbles. Several of the local variety of **orcas** were also seen. These have yellowish patches instead of the white we are used to in the northern hemisphere, though it is not known whether they are sufficiently different to be considered a full subspecies.

The expedition also managed to land on Elephant Island where Shackleton's expedition spent the winter. Here there were **Atlantic fur seals** and **sheathbills**, the only land bird to be found in Antarctica. Only one landfall was made on the Antarctic mainland, at Paradise Bay, and the expedition never got as far south as the Antarctic Circle.

In contrast, the trip to Spitzbergen started high above the Arctic Circle at the islands' capital, Longyearbyen. The warming influence of the Gulf Stream makes access possible at latitudes which would have too much ice in the Southern Hemisphere. Spitzbergen is the last land before the North Pole as most of the Arctic consists of a deep ocean with the ice cap above.

Again a wide variety of natural history was observed. Flowering plants are plentiful, though usually very low growing, and we were shown a few examples including a **potentilla**, a tiny *Silene*, the familiar purple *Saxifraga oppositifolia* and *Polemonium boreale*, related to **Jacob's ladder**. The **reindeer** are a distinct race, with short legs, thought to be due to the absence of **wolves** which reduces the need to run fast! The most numerous animals are the seabirds which are found in huge cliff colonies. **Kittiwakes** and various gulls cover the cliffs, but **little auks** nest very high up on the island to avoid the predatory attentions of the **glaucous gulls**.



To the north of Spitzbergen the expedition encountered ice floes and managed to see some **walrus** on them. The channel between the two main islands was ice blocked but close approach to the nearby ice floes rewarded the party with distant views of three **polar bears**.

The wonderful slides of such memorable and contrasting scenery and wildlife were thoroughly enjoyed by everyone present (even Christine sat still for the whole talk! - Ed) and a heartfelt vote of thanks was given by Doug Palmer.

Anne Reid

## IT'S A RECORD!

Richard Brinklow 15th December

This was an exploration of the field of biological records and not musical or sporting ones! A biological record can be defined as who saw what, when and where. When out and about, some

people just look at and enjoy the natural history. When the question arises of how unusual a particular sighting is, then we all rely on the past records of other people when we refer to the standard books. The plants of Angus have been well documented from early times, with an account by George Don being published in 1813 in an Agricultural Survey by James Headrick, and a later "Flora of Forfarshire" being published in 1848 by William Gardiner. The most recent "Flora of Angus" by Ruth Ingram and Henry Noltie, published in 1981, follows on from the work of Robert and Margaret Corstorphine who were preparing a county flora up to the time of their deaths in the early 1940s. The records of Ursula Duncan were also very important in the preparation of the current flora. In addition, her extensive moss and liverwort records for the local area are the basis of our knowledge of their distribution.

However, the countryside is not static and habitats may be under threat from such things as upland afforestation. While the more interesting sites such as SSSIs and Nature Reserves are regularly monitored and recorded, other less notable sites may undergo changes unnoticed. The rarity or otherwise of any plant or animal on any site can only be judged by regular recording, in both a local and national context. So we **all** need to write down what we see, with all details, and submit the records to the museum so that they can be included in the wider picture. The Naturebase computer system at the museum has over 150,000 records from some 3,000 sites in the local area. Many of these have been provided by local naturalists in response to specific projects such as Operation Orchid which produced many more sites for the common species and a few more for the rare ones. Birds and mammals have also been targeted in recent surveys. The **mountain hare** was recorded up to 1970 in the Sidlaws, but none has been recorded recently, and the once widespread **brown hare** is now much rarer. The **water vole** which was regarded as 'common' in 1968 has all but disappeared in the last twenty years. The current target group is **butterflies** in the local area with the intention that all records will go towards the national 'Butterflies for the Millennium' scheme.

So there is some recording that **everyone** can do. With our diverse interests as naturalists we can **all** help to put our local wildlife, both common and rare, in context. Take a pencil and write it down while you enjoy it. Details of the Naturebase recording scheme at the museum are on page 40.

The second part of this evening meeting was the by now traditional Christmas celebrations. There was plenty of festive baking brought by members and this was eagerly eaten, washed down with tea or coffee. A very pleasant opportunity to relax and talk to fellow members was used to the full by all.

Anne Reid

## MEMBERS' ARTICLES

### CYPRUS '98

Hearing that a holiday to the island of Cyprus in spring to view the **orchids** was being planned, I quickly signed up. However, four of us decided to have two weeks in order to spend some time birdwatching.

What a splendid time we had! Paphos is on an important migration route and the cape round the lighthouse was a perfect resting place for the weary travellers. Our first morning was so exciting, we were knee deep in birds, each of us having spotted something different requiring identification. Besides thousands of **larks** and **pipits** there were five different **wheatears** - **Finsch's**, **black-eared**, **Cyprus pied**, **Isabelline** and **northern** (the one that comes to us here in Scotland). There was even a **dotterel** and a **golden plover** in residence. Other days there we had **rock thrush** and **blue rock thrush**, while on the shore were **greater sand plover** and **Kentish plover**. I mustn't forget the **kestrels** that were sitting around waiting for their next meal to fly in!

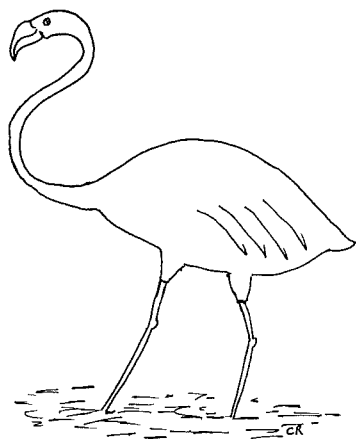
We had purchased Dave Gosney's *Guide to Birdwatching in Cyprus*, so of course we knew exactly where to go. We soon had our first excursion to the Aspro Kremmos Reservoir which was not all that exciting in itself, with only one **great crested grebe** and four **egrets**, but below the wall of the dam there are two or three small pools which attract water birds. On our first visit we had **green sandpiper**, **glossy ibis**, **garganey**, **little ringed plover** and on subsequent visits, **marsh sandpiper**, **ruff**, **little crane** and **water rail**.

A bird that I particularly wanted to see was the **black francolin**. Quite a misnomer for such a handsome bird. While waiting for the others one morning in the car park of the hotel I could hear a bird which sounded just like a cockerel with a cold! I managed to get a very distant view of it perched



perched on the corner of an old shed in a field I didn't realise at the time that this was a black francolin as I thought they would be so secretive and difficult to find. We subsequently went along the farm road behind the hotel and found two or three each time. They do like to hide in the long grass, but the males also get onto a perch to crow.

Another very good area for birds was the Akroteri Peninsula and Phasouri Marshes, reached by going through Episkopi (how many of you remember 'Family Favourites' on a Sunday broadcasting to the servicemen stationed there?) It is only an hour from Paphos by car. Unfortunately on our first visit it was very windy and we saw only **ruff**, **green sandpiper** and **glossy**



**ibis** Noticing two **ducks** fly in we all put up our binoculars to check that they were **mallards**, when a **bittern** landed beside them. What a perfect view we got before it walked off slowly into the reeds. **Marsh harriers** patrolled the reedbeds and a very handsome **black tailed godwit**, coming into breeding plumage, was feeding. We then went to the shore where we had distant views of **flamingos**, though, unfortunately, it is not possible to get close to the lake where they live. In passing we checked one of the **orchid** sites to see that they would be in good condition for next week.

I was in a quandary when the botanists arrived, I didn't know whether to look up or down. The orchids were probably at their best and we saw thirteen different ones, some of them endemics. Because of the heavy snowfall in the Trodos Mountains our excursions there were

disappointing, but the scenery was wonderful.

A most enjoyable holiday, we managed to identify over one hundred birds, nine new species for me. Maybe we were a little early, into April the weather might be better and we would have a chance of seeing different birds. But then we would miss all those beautiful orchids.

Dorothy Fyffe

## INTERESTING RECORDS 1998

After the success of this compilation last year 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.

Each entry is followed by the initials of the recorder

Brian Allan	BA	Jim Cook	JC
Peter Ellis	PE	Dorothy Fyffe	DF
Gordon Maxwell	GM	Bob McCurley	BM
Anne Reid	AR	Leslie Tucker	LT

**8th January** A single **brambling** at Barry Mill. Further single sightings on 21st January and twice each in March and April. PE.

**10th January** Male **blackcap** in garden, Monifieth. Seen again on 18th January at the birdtable. These birds are now believed to overwinter in Britain in small numbers annually. AR.

**27th January** On a morning walk up the lower Dighty I took two steps off the path and was confronted by a **roe deer** about 30m away. We both froze and looked at each other for about half a minute before the deer decided to move on into the cover of a neglected grass area. As it bounced away it was followed by two more deer which had previously been invisible in the undergrowth. Wow! AR.

**2nd February** **Chiffchaff** in Craigmill Den. DF.

**2nd February** A **green sandpiper** at Barry Mill. PE.

**10th February** An extremely early **chiffchaff** at Barry Mill. After an almost non-existent winter, temperatures in double figures for several days. BM.

- 12th February** Skylark singing above Carnoustie Links Also 12 **snowbunting** (9 female, 3 male) between beach and first tee of golf course. Female snowbunting still present on March 8th DF
- 22nd February** A **bumble bee** (perhaps a **buff-tailed**) buzzing around an outside house light in Broughty Ferry at 9pm on a surprisingly mild and calm evening Must have been lured out of hibernation by the mild conditions, but it was in for a shock later in spring! JC
- 24th February** **Frogspawn** first observed in the old burn at Barry Mill PE.
- 26th February** Woke up at about 4am to hear a **thrush** singing in the pre-dawn darkness, surely very early in the season for the start of the dawn chorus. JC
- 13th March** Sunny, 15°C **Peacock butterfly** in my garden, near Sinderins, Dundee, visiting **snowdrops** LT
- 14th March** **Stoat** seen by Lorraine Young at Carsegowndiemuir Quarry JC
- 15th March** A **mink** observed on the burn bank at Barry Mill PE
- 15th March** Pair of **crossbills** seen near Foss Barytes Mine (Tummel Bridge area), also near same spot, two **ravens**. GM
- 22nd March** **Heron** heard and seen on pond 5, Carsegowndiemuir Quarry JC.
- 22nd March** Both **green woodpecker** and **greater spotted woodpecker** are seen and heard throughout the year at Barry Mill On this day a pair of each species was observed together in the same tree! PE
- 1st April** Female **blackcap** in the garden for four days AR (See article below, page 26)
- 17th April** Three female **goosander** seen on Laird's Loch, Tullybaccart. GM.
- 18th April** Nine **shelduck** between Easthaven and Westhaven. DF.
- 18th April** On Cochrage Muir near Bridge of Cally, about 100 clumps of **frogspawn** on this very wet area In addition a **hen harrier**, a **short-eared owl** and six **buzzards** GM
- 21st April** Fully fledged juvenile **dipper**, begging for food, lower Dighty, Barnhill A product of the very early spring, not adversely affected by the cold, very wet start to April. AR.
- 25th April** First **swallows** seen at Carnoustie DF
- 26th April** Fine sighting of **golden eagle** at Craig Rennet (Corrie Fee), Glendoll GM
- 5th May** **Small tortoiseshell** butterfly seen visiting some early flowers in Dundee JC.
- 10th May** **Common lizard**, minus part of tail, in Caenlochan Corrie, Glen Isla. A remarkably tame individual which at one point sat on my boot posing for its photograph A 300 strong herd of **red deer** also seen here. GM.
- 11th May** Seven **swifts**, Carnoustie DF
- 17th May** **Willow warbler** and **whitethroat** at Station Road, Barry. DF.
- 22nd May** A single **pipistrelle bat** flitted over garden in Broughty Ferry JC
- 5th June** While counting the **mute swans** at Balmossie, Monifieth, I noticed one **whooper swan** amongst them, behaving fairly aggressively towards its cousins This was three days after an article in the Courier by Jim Crumley saying that eight whoopers had remained on his local loch in Perthshire. Are the birds changing their habits, or are these juvenile, non-breeding birds? AR.
- 9th June** The female **blackbird** in my back garden, which I feed regularly (loves grapes!) is now constructing her third nest of the season First one successful, second abandoned (4 eggs) probably because of cat disturbance GM
- 10th June** **Kestrel** in back garden pursuing **sparrows** (unsuccessfully) Who needs to travel to see wildlife? GM
- 25th June** **Green woodpecker** nest spotted in old birch at Laird's Loch Fully fledged young bird preparing for take-off. GM.
- 5th July** Tentsmuir A total of seven **orchids** plus one hybrid seen in **willow carr** with some conifer **twayblade**, **lesser twayblade**, **northern marsh**, **coral root**, **common spotted**, **creeping ladies' tresses** and **early marsh** **Common wintergreen** also in same area. GM
- 5th July** Watched at least six **dolphins** very close to shore off Buddon Point at Carnoustie Seven or eight seen very close to the shore at high tide on 9th July in Carnoustie Bay were playing They were chasing one another and then jumping right out of the water, sometimes in pairs



and sometimes three at a time. They stayed around the estuary for the summer and many people had the pleasure of watching them DF

**9th July** **Shelduck** family with four young at Westhaven harbour DF

**21st July** Six **burnet moths** near west side of Craigowl Hill. **Cinnabar moth** caterpillars have also been seen near here. Both species are normally predominantly coastal in Angus GM

**8th August** **Northern brown argus** butterfly on cliffs near Elie, Fife This is normally an upland species, and is one of our smallest butterflies GM.

**28th August** At least six **dolphins** at Westhaven Harbour, Carnoustie Also reported in previous week by a neighbour DF.

**13th September** Many **dragonflies** at the Leuchars end of Kinshaldy beach Probably the **ruddy darter** (*Sympetrum sanguineum*) Ruddy difficult to photograph! GM

**20th September** **Heron** flew off pond 5, Carsegowniemuir quarry, as we approached JC

**26th September** **Grey squirrel** seen in next door garden (Foggyley Gardens) The first one of any hue seen here by me. GM

**27th October** Three **swallows** lingering at Broughty Ferry Esplanade Swooping low over dune edge and strand line AR

**Late October** **Tawny owls** heard by the Youngs giving territorial calls near Carsegowniemuir quarry JC.

**10th November** Two **mute swans** displaying and mating at Tayport The female previously had a different mate, so was possibly establishing a new pair bond. Also two more, even later, **swallows** around the harbour AR

**10th November** Male **teal** seen on pond 5 at Carsegowniemuir quarry. JC

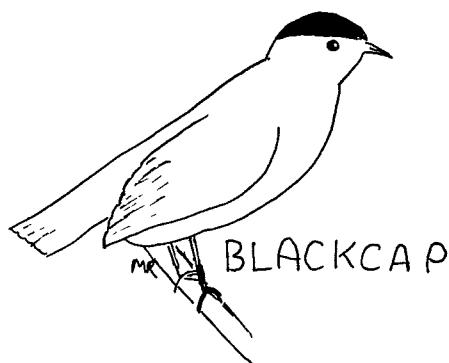
**16th November** 23 50h - four spectacular, bright, **meteors** within a five minute period. Part of the Leonid shower, these were almost like fireworks, streaking across a large part of the sky The peak of the shower was forecast for 17th November - see article by Jim Cook on page 35. AR

**29th November** **Peacock butterfly** on ivy flowers in my garden, Dundee. LT

**30th November** Woke at about 2am to hear a **robin** singing lustily in the tree outside the window. Wondered if a cat had disturbed it and set off the song. JC

**12th December** **Red squirrel** in woods by Elliot Water, Arbroath. DF.

**17th December** A **fox** seen just to the east of Claypotts lights. BA



## GARDEN BLACKCAP

On the first day of April a female **blackcap** arrived in our garden to plump up for her long journey We first saw it in a tree, then it came down on to the bird table It was pecking at the birdcake we had put out mostly for the **finches** and **tits** A little bit later on my mum saw it on the nuts but a **starling** scared it away I didn't see it on the nuts but I saw it on the bird table. It just looked like a **chaffinch** or a **greenfinch** until you looked at it with the binoculars, then you could see it was a blackcap The blackcap stayed in the garden nearly all day.

Christine Reid (age 8)

## THE THREE Bs

Butterflies, Birds and Botany

With last year being so outstanding on all these fronts, what would 1998 bring, and could it possibly match, or perhaps beat, 1997? In the event, for me personally, with a little effort it has turned out another excellent year and some of the many highlights are recorded below

**Butterflies** With my interest ever increasing I have broken some new ground and managed to see three new species, or in birding parlance, lifers, this year. The first of these took me to the west coast in the Oban area in search of my long awaited **chequered skipper butterfly**. This is a very rare species in Scotland, but with the help of local knowledge we managed, not easily mainly because of the dull weather, to gain a sighting which was truly memorable. This same trip was taking in dragonflies as well and I saw my first **hairy dragonfly** and **golden ringed**.

My other exciting sightings on the Lepidoptera front have been much nearer home and just as enjoyable. Barry Buddon once again produced some surprises with members attending the open day in June gaining sightings of **wood tiger moth**, **small elephant hawk moth** and **cinnabar moth** along with **small pearl bordered fritillary**, **small copper** and **small blue** (my second lifer).

The **northern brown argus** was the third lifer, recorded in the Sidlaw Hills in July. At the same site we also found a further six species, **small pearl bordered** and **dark green fritillaries**, **common blue**, **small heath**, **ringlet** and **meadow brown**; ample evidence of the wealth to be found in our own back yard.

In all my 'bag' for the year totalled twenty species and I'm already looking forward to 1999 - top of my shopping list is the **green hairstreak** which I'm told can be found at some local sites, I cannot wait!

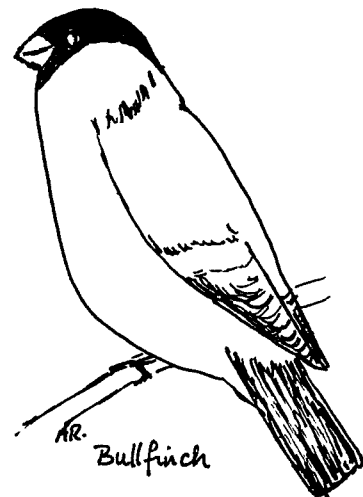
**Birds and Barry Buddon** I read recently that the great magic of birdwatching is its unpredictability. I agree entirely and would add that birdwatching is not only about what you see, but what you might see; the element of surprise never fails to delight.

This element of surprise certainly applied to Barry Buddon which has once again proved to be an outstanding area in 1998 both for the breeding birds, resident and summer visitors, and for the birds passing through on migration. Early signs of spring migration were evident on April 8th when a lovely **black redstart** and two male **ring ouzels** were spotted at the lighthouse compound. Both of these, along with an **osprey** which flew across the camp heading north, were new to the Barry Buddon list. The good run of surprise visitors continued when on May 3rd a **honey buzzard** flew over, heading south. This was followed on May 17th by a female **red backed shrike**, the second year running that the species has appeared on the reserve.

I was delighted to record my first **bullfinch** on Barry Buddon on May 23rd, but even more surprised when the following day, while carrying out the annual MOD bird count, I spotted, out on the estuary, a **great northern diver** with a second, lighter bird keeping it company. This turned out to be a **white billed diver**, the first sighting in Angus for 44 years! This record, along with a description, has been submitted to the BBRC and the local recorder for scrutiny and, hopefully, acceptance. During the week of the bird count a record number of 82 species was noted, and 42 of these were shown to be breeding, including **coot** and **wheatear**, both of which produced healthy broods.

The Barry Buddon open day once again was a great success with 40 enthusiasts attending and enjoying a great day out (see also page 28). An evening visit with the local YOC group in June proved very enjoyable with the young ones seeing, among other things, a brown phase **cuckoo** and a roosting **small blue butterfly**.

Autumn wader passage this year was excellent with both **green** and **wood sandpipers** showing well on Buddon Burn; an area which proves popular especially at high tide. Further signs of autumn migration were evident on September 6th with **merlin**, **whinchat** and **spotted flycatcher** present, followed on September 11th by two large **Greenland wheatears**. October 18th signalled the arrival of an influx of **chiffchaff**, a species which often overwinters - five were still present in mid



November The season closed with the arrival of those delightful winter visitors, **snow buntings**, at Buddon Ness Their flicking snowflake-like wing pattern reminds us winter has arrived

So ends another outstanding year for Barry Buddon, which continues to provide a safe and unspoiled breeding station and a welcome staging post for passage migrants Long may it continue

**Botany** With so many of my outdoor activities and spare time spent on Barry Buddon, which I often refer to as BB, the thought occurred to me that I could use the same initials to describe my progress on the botany front and call myself a budding botanist!

Thanks to my membership of Dundee Naturalists' Society and to the great help and encouragement I have received from their many experts, I have found my interest in botany increasingly growing in recent years With so much of my time spent in the field I find I can enjoy the best of all worlds from my interest in the three Bs

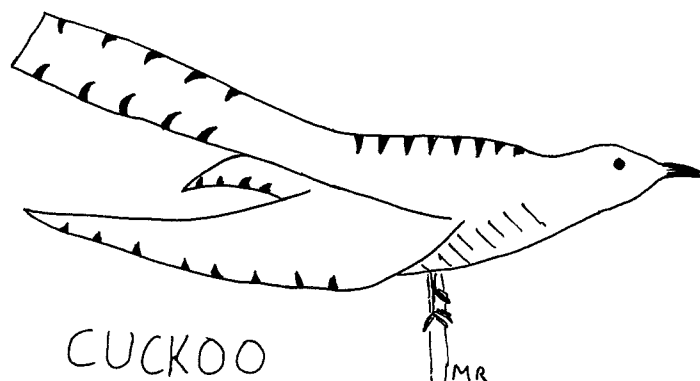
Don't ask me why or how, but I have always found myself drawn to the scarce or rare species, be they birds, butterflies or plants Of course I have also always believed that it is important to gain a knowledge of the basics before venturing to the higher 'Alpine peaks', and having served my apprenticeship I feel I can now truly look for and enjoy the scarce plants which Tayside has to offer New sightings I have had the pleasure of seeing this year have included **creeping ladies' tresses** (*Goodyera repens*), **twinklflower** (*Linnaea borealis*), **bird's nest orchid** (*Neottia nidus-avis*), **greater butterfly orchid** (*Platanthera chlorantha*), **celery leaved buttercup** (*Ranunculus sceleratus*) and **heath speedwell** (*Veronica officinalis*) All of these to me were privileged sightings and memorable and I eagerly look forward to 1999 for more exciting discoveries.

Bob McCurley

## BARRY BUDDON JOINT OUTING

14th June 1998

We met in the car park at Riverview as normal and while waiting for everybody to arrive I saw **house martins** collecting mud from a puddle. We started off by going for a walk beside the Buddon Burn. We saw a **burnet moth** caterpillar on the path We also saw a **cuckoo** flying from bush to bush. I had never seen a cuckoo before



Next we went to the Lochs where we saw lots of **sand martins** flying low over the water and the **feral goose**. Our next destination was the lighthouse where we had lunch. In the dunes we saw lots of invertebrates We saw a **chafer beetle**, a **common wainscot moth**, a **snipe fly** and a **crab spider**. We went to look at an area where there was a **wheatear** nest and saw a **wheatear** and some **eider** nests

The last place we went was Happy Valley. Christine and I went **tadpole** fishing and we caught lots of tadpoles and a **pond snail** We also saw **small coppers**, **cinnabar moths**, **blue tailed damselflies**, baby **grasshoppers**, a **wood tiger moth** and a **small elephant hawkmoth** Adam Garside found the moths. Someone else found a dead **common shrew**

Mary Reid (age 10)

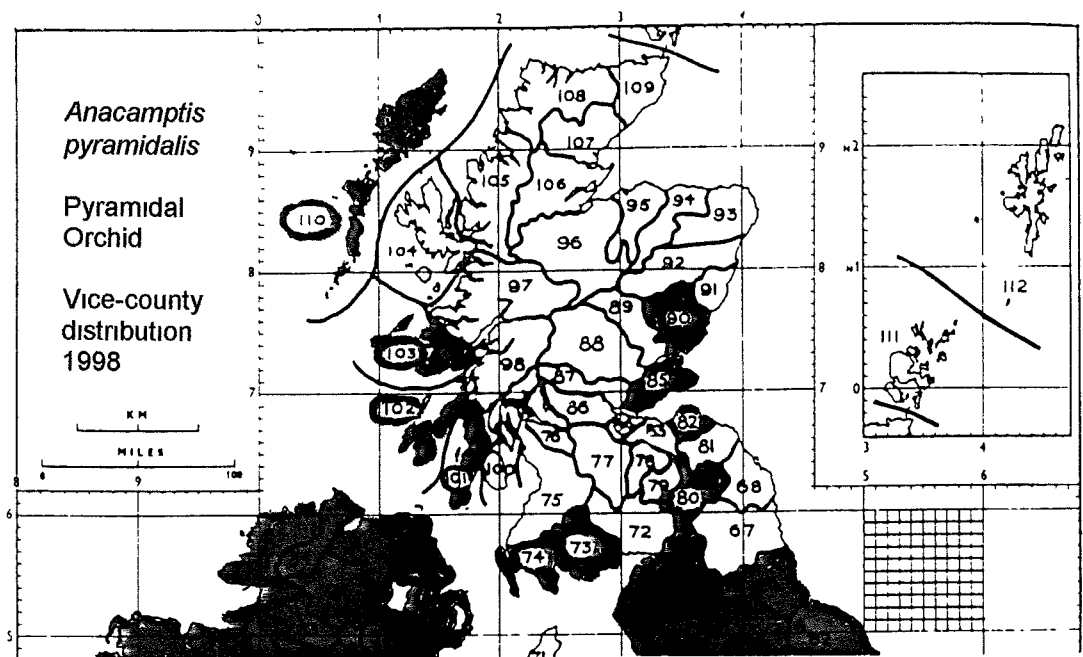
## ORCHIDS SPREADING NORTH WITH GLOBAL WARMING?

Though the environmental scientists assure us that global warming is an experimentally observable phenomenon, happening to us right now, it seems hard to believe, remembering the extensive periods of cloud which hung over us for so much of the past summer in Scotland - local wetting for us, in effect! If the weather forecasters are proved right, and this trend continues for the next century or so, we may as well all invest in Goretex and try to make the best of it. However, in addition to the thrills of battling gales and floods, we may also have exciting changes in our wildlife to look forward to. I believe I may have seen some of the more attractive results already.

The last Sunday in July (the 26th) was clear and sunny, so in the afternoon my wife and I decided to take a walk along the coast, from the car park at Easthaven towards Arbroath. The country here is rather flat and exposed to the winds, but there are some rather surprising varieties of wildlife to be seen if you look closely around some of the more sheltered aspects. A few wee burns trickle down to the sea and these create small pools and marshy spots in the slacks between the low fore-dunes and the landward ridge where the railway line runs. Just offshore, and more or less parallel, run a series of limestony reefs which also collect pools and form attractive little habitats. This physical environment also seems to produce some soil enrichment, especially with calcium from the weathering of rocks and windblown shell-sand, this can always be expected to enliven the species diversity of an area. There have been a few uncommon plants recorded for such localities on the east coast of Scotland; for example, I would like to find some of the rarer **campions** and **geraniums** that have been seen hereabouts in the past. However, my wife and I were just stretching our legs and enjoying the last of the summer sunshine. At best I hoped to 'bag' some **watercress** or **field mushrooms** for my tea; both of those species seem to have luxuriated in recent weather.

We were following the popular grassy path along the top of the sand-dunes, by the pasture field fence, when some peculiarly pink blobs of flower colour caught my attention, about ten metres away down the landward, grassy, slope. I gripped my wife's arm so tightly, as I exclaimed "Look!", that she jumped with fright. Though certainly not expecting to see such a thing here, I guessed immediately what they were - pyramidal **orchids** - was this a first sighting in Angus? I didn't climb over the fence for a confirmatory close inspection right away, perhaps a little fearful of disappointment, but more to prolong the excitement. Instead, I walked all around first, to see if there were many about. No, they were only in that one patch less than ten metres square. Subsequently I have scoured the links from East Haven to Elliot without seeing another pyramidal orchid. I was pleased, however, to find two colonies of **frog orchids** and one of **autumn gentians**, not far away.

On returning home, I consulted my notes and reference books. Ruth Ingram and Henry Noltie's *Flora of Angus* (1981) made no mention, and the location map for *Anacamptis pyramidalis* in Brian Allan, Patrick Woods and Sidney Clark's magnificent *Wild Orchids of Scotland* (1993) showed that pyramidal orchids had never been recorded on the east coast north of Fife - tantalisingly noting



that "It has been known to have persisted in one east coast locality in high numbers for over 100 years." VS Summerhayes' book in the "New Naturalist" series (1951) reported similarly. It seems generally agreed that pyramidal orchids are predominantly of southern Eurasian distribution, but can flourish in milder coastal districts to the north, as far as southern Sweden. I have seen them on Cornish *towan*, Irish *dunin* and Hebridean *machair* so far, all calcareous sands. Various articles by George Ballantyne, written for Kirkcaldy Naturalists' Society and held in Kirkcaldy Public Library, also noted the occurrence of pyramidal orchids in the Ferry Hills and on various links along the Forth coast. Despite my occasional forays in Fife, though, I had never seen any pyramidal orchids there until this year.

I have included an outline map of the northern British vice-counties (previous page), shaded to show the recently recorded distribution as far as I know it. Sid Clark told me that they were seen again this year in East Lothian, after disappearing for a great many years.

Both the systematic botanical Graeco-Latin, *Anacamptis pyramidalis*, and common English, **pyramidal orchid**, names are, for once, fairly descriptive of the flower heads. They open first at the base of the inflorescence, last at the pointed topmost buds; so forming a conical cluster of little flowers.

Though usually bright pink in Britain, the colour of pyramidal orchid flowers can be quite variable elsewhere, from dark vermillion to pure white in some populations. Incidentally, *Wild Orchids of Scotland* offers *Mogairlean nan Coilleag* as a Gaelic name; I wonder whether this invention is intended to imply their resemblance to a cock's *comb*? The flowers at East Haven were shorter (about 15cm high) than usual, as a result of growing in shorter grasses on an exposed site; but they were quite brightly coloured, or I probably wouldn't have noticed them at all. Even so I think I must have got my eye in a few days earlier in Fife.

During the 1998 botanising season, I had been on some trips with Sid Clark, Photographer at the Royal Botanic Garden in Edinburgh, exchanging information on good locations and, myself, hoping to pick up some useful tips on photographic techniques. On Sunday 19th July we met on the north-east side of Elie Ness, in Fife. Sid was mainly interested in photographing **frog orchids** and **Scots lovage**, both of which are quite plentiful there. Sid spends a great deal more time getting the very best shots of a few subjects than I have patience or equipment for. Consequently, I wandered off to examine the coastline towards Anstruther; seeing lots of **common spotted** and **northern marsh orchids**, as well as a few more **frog orchid** flowers and the dried seed heads of **early purples**. It wasn't until I returned a couple of hours later that I spotted a single **pyramidal orchid**,



quite near to the frog orchid colony which we had been concentrating on, and which Sid was still photographing. At the time I assumed that this was probably the farthest north growing individual on the east coast, I have since been shown a large colony a few miles away, on the south-east side of Fife Ness. It appears most likely that this may be the old established site from where seed may be dispersing across both Firths, north and south. I pointed out this single **pyramidal orchid** to a couple of passing Fife Coastal Path walkers who wondered what we were so engrossed in photographing. They remarked that they would never have distinguished it among all the other pinky-purple flowers around. **knapweed, clover, restharrow** etc. This may be part of the explanation why the East Haven pyramidal orchids had not been noticed before by naturalists, but the colour mimicry probably also helps the flowers attract pollinating insects.

I find it hard to believe that the East Haven colony only started blooming this year. When I first saw them there were over two dozen flower heads. Barely half a dozen survived to open fully; the rest got nipped off by **slugs** or **rabbits**. According to the accounts I have read, seedlings develop underground at first, in mycorrhizal symbiosis. It isn't until the fifth year at least that they even develop a leaf, and several more before they flower. Could they have synchronised all this, just before I arrived? Apart from the possibility that the warmer, wetter weather has favoured them recently, I suspect that the relief of grazing here and elsewhere, with the reduction in cattle raising, especially, as a result of the BSE-CJD epidemic, has also allowed the orchids to thrive.

Like many other orchids, *Anacamptis* persists and even multiplies after flowering by developing storage tubers. Actually, they should be putting up three or four leaves in winter, in order to photosynthesise the resources for next year's flowers. I went back to the East Haven site at the beginning of December to see if I could find their dried seed heads or new leaves, but couldn't. I was pleased, however, to encounter a gang of ferreters whose nets and lurchers had caught a good bag of **rabbits**. Good luck to them! I also remarked upon the drilling rig which has recently appeared offshore here, and hoped that the connecting pipeworks would not harm the area.

The first people I told about the pyramidal orchids were Brian Allan and Barbara Hogarth, subsequently taking them out to the site about a week later. My sketch shows us paying homage. When on holiday abroad, I like to spot groups in such typical attitudes. Apart from being another good indicator of a potentially interesting wildlife site, our joining such gatherings has led to new friendships. A similar picture of botanising 'worthies' is the frontispiece of Peter Marren's *The New Naturalists*, with the response to an inquisitive passerby "Don't you know? It's the New Religion!"

Richard Brinklow has now assured us that the East Haven orchid site will be protected, now that it is on record. Good! But this seems to imply that construction of the sewage works would, otherwise, have been sanctioned without any concern to visit and check what plants were actually growing there now.

Finally, I would like to note that in my reading around the subject of **pyramidal orchids**, I learnt that one should *expect* to find **frog orchids** and **bee orchids** growing in their company. Bee orchids are not to be found at all in the records for Scotland. Let's get out there and look on the ground - however wet and midgy it might be; we may even find something else quite *unexpected*!

Les Tucker

## LOCAL DRAGONFLIES

The title refers to my local patch around my home in Barry. Like most birdwatchers one develops an interest in all airborne creatures, progressing from birds to butterflies, which in Angus are reasonably straightforward, onto the more complex, and daunting, identification of moths. Persistence and good field guides assist though. Damsel and dragonflies, however, are possibly more challenging for several reasons. They have a short lifespan and are so wary that opportunities for locating stationary individuals are rare, making close observations or capture of specimens very difficult. In addition, suitable habitats are scarce, so, even when the weather is good enough some species can be a real challenge to find.

My interest in these creatures was sparked by the sight of a **blue-tailed damselfly** gliding and settling on the reeds of the pond edge one warm sunny evening while walking around Barry Mill.



Since then my interest grew and I have observed the following species in our area, albeit mainly at ponds and ditches on Barry Buddon

*Ischnura elegans* **Blue tailed damselfly** - one of the earliest and most widespread species here

*Enallagma cyathigerum* **Common blue damselfly** - this species occurs frequently at several sites and can usually still be seen late in the season

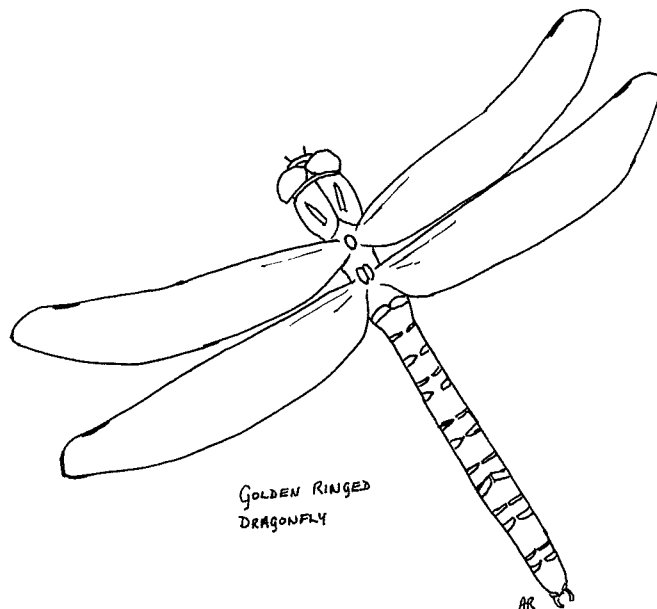
*Pyrhosoma nymphula* **Large red damselfly** - has been seldom seen, usually early in the season

*Lestes sponsa* **Emerald damselfly** - to date I have only found this species at one site, but its numbers were significant. It is a magnificent metallic looking species but very difficult to find at rest. It seemed to disappear after July.

*Sympetrum danae* **Black darter** - this species occurs frequently and can still be seen into October. There are usually good numbers around in July.

*Sympetrum nigrescens* **Highland darter** - several individuals were located on a single pool. I have no reason to believe that it does not occur at other sites in my area, but I have not yet located these. Note this species can be confused with *S. striolatum*. The head pattern of a single male found at rest and caught on a dull cool day was similar to that of *S. nigrescens*.

*Cordulegaster boltonii* **Golden ringed dragonfly** - having previously seen this species only in the west of Scotland, I was surprised to find a single individual near to Barry Buddon on the morning of 3rd October. It was a bright sunny morning when I spotted this large species moving rapidly, low over the water. I hurried to the far end of the pond, hardly believing my luck, and approached the area cautiously, one step at a time. Stopping to view from a range of about seven metres I realised that this unusual sighting was a female laying eggs. Her wings thrashed noisily against the reed stems as she clung to one tightly, carefully lowering herself into position. Her body formed the letter C as she submerged her abdomen in the water to just a few millimetres short of her hind wings. It surprised me how deep she remained in the water for periods of between three and four minutes, carrying out her task, occasionally repositioning her abdomen. I presume to place eggs at different positions on the submerged vegetation. From a distance of four metres I witnessed this egg laying performance on five separate occasions, all within an area of about six square metres, within the space of about an hour before she finally flew off. A simple case of being in the right place at the right time!



The foregoing list contains only species which I have seen on my visits to these sites and should not be taken as the only ones found in the area. I would be interested to receive members' sightings of any damselflies or dragonflies in Angus.

Ron Lawie

## WINGED WONDERS

6th September

Doug had just said "This looks like a good place for a piece", when Davy called out "There's a damselfly!" "Where?" we all chorused. "Over there among the grasses at the side of the pond." We were beside the pond close to the car park in Crombie Country Park and it was an excellent place for a bite or two. The day was bright and windy but there was plenty to see while we sat and ate. The small black dots of **whirligig beetles** (*Gyrinus* sp) circled over the water like tiny toy boats while

while **water skaters** (*Gerris* sp) skated around near the pond edges. The bright blue spot on the rear abdomen of a **blue-tailed damselfly** (*Ischnura elegans*) stood out clearly against the dark water. It flew over towards us and obligingly landed on the grass just in front of the picnic spot. "There's another one!" somebody said and we could clearly see the dark abdomen of a **black darter** (*Sympetrum danae*) as it flew on a circuit round the pond. They're a fairly common species locally but not recorded all that often and we were very pleased to see it. And then another black darter appeared. This obviously was a very good pond for damsel and dragonflies and we had had the luck to be there at just the right time in good conditions.

Before we'd had time to finish eating another species appeared, probably a **common darter** (*Sympetrum striolatum*) with its red abdomen and wing spots. It settled down on a small log floating near the water's edge and several of us abandoned our food - temporarily - to stalk over and photograph it. The beast wasn't very cooperative and it took us some time to obtain a reasonable shot. Back to the food, but the pond wasn't finished with us yet.

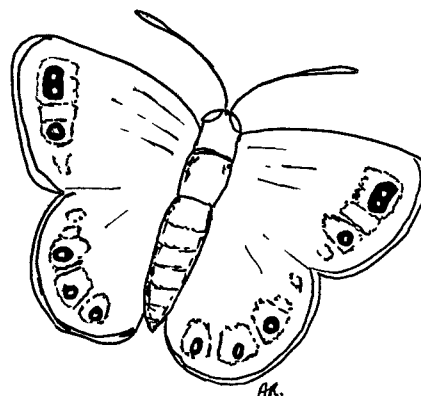
Gordon suddenly exclaimed "Look at that!" as another new species arrived, the fourth at that site. It was a magnificent specimen of a **golden ringed dragonfly** (*Cordulegaster boltonii*). It zoomed around and then hovered for an instant and darted away again. This species is seen much more often in northern Angus in the Grampian foothills and it formed a very good record for the locality. We spent another half hour at the side of the pond but didn't see any more species. It was worth the wait, though. The golden-ringed came back on regular patrols and both the *Sympetrum*s reappeared while the blue-tailed damselfly just kept bumping around. We were very pleased to see four species in such a short time, most unusual for Scotland. The good thing, though, is that you can go and see the same species for yourself. Any time that you're up at Crombie on a sunny day in summer or early autumn, just spend a few minutes beside the pond - and you never know what might come along!

Jim Cook

## THE SCOTCH ARGUS

Although this attractive butterfly can still be found in the Lake District and was formerly more widespread in England, its stronghold, as the name suggests, is in Scotland. Even here it is localised, being found in the Highlands and Islands and also in the Southern Uplands. I first spotted one or two in the Glen Lyon area many years ago, then subsequently near Blair Atholl a few more were spotted. Not having acquired one for my collection (photographic, of course), myself and two others, Doug Palmer and David Stein, resolved to walk up Craigower Hill near Pitlochry one Sunday in August. This hill is well advertised in the town as a good locality for the butterfly. One can enjoy a pleasant walk from the town past a small loch (**ducks, moorhens** etc) to reach the hill, but we took the easy option, the small car park adjacent to the golf course, which knocks about a mile each way off the walk (well, we are 192 years old collectively!). Starting on the wide forestry track we plodded up the lower slopes, examining all the naturalised **buddleia** bushes for the elusive insect. Not a single specimen was seen on the shrubs, nor was any other species. We began to think that we had arrived at the wrong time of year or that the weather was not suitable; it was rather overcast, but mild. Then one specimen was seen and relentlessly pursued until its image was captured for posterity from at least three different angles. We could have saved our energies, approaching the top of the hill, the butterflies were all over the place, not on buddleia but on **grasses** beside the path (**purple moor grass** is the larval foodplant). The butterfly is easily identified by its dark hairy body and its orange-red wing spots, but could be confused, wings closed, with the **meadow brown**. After our usual snack we counted in excess of one hundred specimens on the top of the hill and down the other side. This is not a long walk, but anyone tackling it should be aware that, done in the reverse direction to our route, it is a stiff pull up the last few hundred yards, even with the steps cut by the local authorities.

Gordon Maxwell



## A LOST SOUL

27th October

It was raining steadily as we drove along the narrow country road not far from Tannadice village, at the back of Forfar. The white lines of a straight stretch dissolved into the wet mist ahead. Suddenly a small pale shape at the roadside caught our eyes, but we'd swept past before I had a chance to pull up. "That's an owl!" "I thought that's what it was" said Harry. Since there were a few minutes to spare, we reversed until the small shape again glowed in the headlights. I switched on the warning flashers.

It was an owl alright. The colouring and characteristically round face told us that it was a **short-eared** and a young one at that. "It must be injured" muttered Harry, "probably in a bad way." "Hit by a car." We got out to look. The rain patterned the roadside puddles and the beech trees dripped in the pitch blackness above. The bird had shuffled well out from the grassy verge and just stood and stared glassily into the lights. We couldn't leave it there, the next car would finish it off. By this time I was standing right over the hunched shape but it didn't fly off, simply craned its neck to peer straight back at us. I bent down and gently touched its delicate, soft back feathers with the tips of my fingers. We had to be careful not to injure the young bird any more - and anyway I didn't fancy a talon in my hand.

Suddenly the bird leaped up and swept powerfully off into the rainy night. To our delight, there seemed to be nothing wrong with it! It flitted through the trees like a small white spirit and vanished away from the headlights. But within a minute it appeared back in the middle of the road only a hundred metres on. This juvenile obviously didn't know that roads are very dangerous places for owls. We got back in and slowly moved up towards the bird but the second time it didn't let us get so close. As Harry and I walked up to within about three metres it launched itself into the air and like a giant moth fluttered off, but this time directly away from the road. We didn't see it again and there was no sign of it - alive or dead - on the way back, no spatters of feathers at the verge. With luck we had scared it sufficiently to stay away from roads. That's the way owls should be, like lost souls in the night.

Jim Cook

## OUTDOOR INFECTIONS

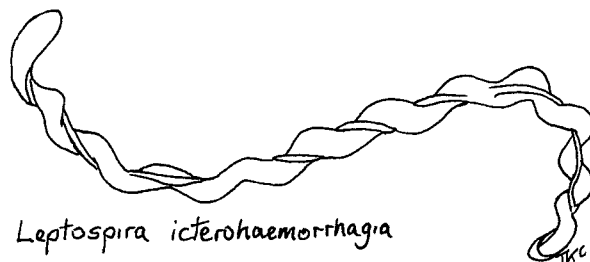
What every field naturalist should know

There are several infections to which naturalists, gardeners and outdoor sports enthusiasts may expose themselves, perhaps unwittingly, while pursuing their interest. Though all relatively uncommon it is helpful to be aware of their existence so that if symptoms develop you can at least suggest them as possibilities to your overworked GP who may not come across them very often.

The most widespread, soil-borne, infection is **tetanus**. It can be introduced into an apparently trivial cut or puncture wound and can often prove fatal. It is, however, entirely preventable by immunisation, ie three primary course doses followed by two or more at ten year intervals to give life-long protection. There really is no excuse if one contracts tetanus.

**Weil's disease** and **Lyme disease** are other infections that Nats may be exposed to when guddling in dumps, ditches or 'tick country'. I am indebted to Anne Elliott (née Brown) who sent me the latest SNH information about these conditions, which is summarised below.

**Weil's disease** or **Leptospirosis** is caused by the bacterium *Leptospira icterohaemorrhagiae* which is carried in the kidneys of **rodents**, usually **rats**. Their urine then contaminates water, river banks and rubbish dumps and the bacteria can survive in damp conditions for up to 45 days.

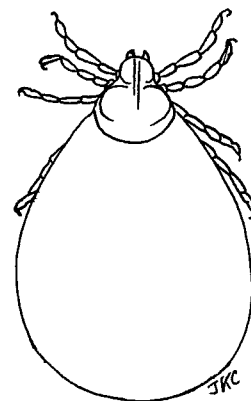


*Leptospira icterohaemorrhagiae*

Infection occurs through cuts and grazes and through mucous membranes in eyes, nose and mouth. The incubation period is between 3 days and 3 weeks and early symptoms can be confused with those of flu - headache, temperature and painful joints and muscles. Later, bruising of the skin, sore eyes,

nose-bleeds and jaundice follow Fatal cases are rare and only 5-10% of those infected get the more severe form of the disease where liver, kidneys and heart are infected Sensible precautions include covering cuts and grazes with waterproof plasters, or wearing rubber gloves and boots if close contact is envisaged Wash hands before eating

**Lyme disease** is transmitted from animal to human by the bite of a **tick**, though not all ticks are infected The most active feeding phase of the tick is in April and May and then again in August and September. The symptoms can be difficult to detect, but the first stage, usually within a month of a bite, is a round rash with a clear centre, which may be accompanied by joint pains and flu-like symptoms Stage two can occur with or without the initial rash and consists of joint pains which may be intermittent but can result in permanent damage if not treated These may not be apparent for weeks, months or even years after initial infection The third stage can cause general illness, arthritis and some neurological disorders The main protection against contracting Lyme disease is to avoid tick bites by wearing sensible clothing with minimal skin exposed in 'tick areas' and by checking carefully when undressing, paying particular attention to areas which are hard to see without a mirror! If a tick is found it should be removed as soon as possible as the risk of infection is reduced if it is removed from the skin within 24 hours Try not to leave the mouthparts behind when removing a tick - a drop of alcohol or methylated spirits may help to relax its grip



Both Weil's disease and Lyme disease are diagnosed by blood tests and treated with antibiotics The information on both emphasises the prevention of fairly unusual infections which are eminently treatable **if diagnosed** - and there's the rub Your doctor is much more likely to diagnose Lyme disease if you tell him about the tick which a good friend removed from your back four weeks previously!

A Weil's disease postscript Hideyo Noguchi gave the *Leptospira* genus its name in 1917 He worked in the Ghanaian research laboratory of Dundee graduate Dr Bill Young, who happened to own my house back in the 1920s Tragically, they both died of yellow fever just before the first vaccine became available Bill Young unfortunately incurred the fatal infection when making a post-mortem examination of Professor Noguchi

Alban Houghton

## THE NIGHT BEFORE LEO

Early morning, Tuesday November 17th

'Twas the night before Leo and nothing was stirring, not even a mouse The grass gleamed frostily and the leaves hung limply outside the house The stars glittered in the cold clear blackness with the outline of Leo, the lion, crouching low on the eastern horizon Overhead the thin veil of the Milky Way arched across the vault

Suddenly a thin line of fire streaked across the sky, angling over from the east I was in luck - a bright Leonid meteor. This was the sight I'd come out into the cold to see. And it was worth it Over a period of about half an hour there were 20 good meteor falls, some with very bright paths that trailed over more than half the sky They crossed most parts of the eastern sky but all of them seemed to originate in the sky around the constellation of Leo, which is why - of course - they are called Leonid meteors.

Each one consisted of a brightly glowing head followed a short distance behind by a bright trail with a slight, though distinct, greenish tinge which lasted for only a second or two However, two of the meteors showed bright patches along their tails that glowed for about 20 seconds Perhaps the incoming dust grain had exploded Another one near to the constellation had only a short path but showed very brightly Presumably this was a particle entering the atmosphere at a steep angle This display, although sparse, certainly was one of the natural wonders of the world.

A friend of mine reported that he had seen a meteor change direction - its trail wasn't straight - and wondered whether this one had bounced off the upper atmosphere and back into space

The best view of all, though, was reported by a lady walking her dog in Downfield, with a clear view to the north and east. It was about 7.30am, with dawn breaking, and as she said "I thought the showers of light were going to fall on my head!" It must have been a spectacular sight - and the rest of us missed it! In fact the main part of the meteor stream arrived 16 hours earlier than predicted, just when the lady reported her sightings.

The next evening was misty with patchy cloud. Only a few meteors were seen, almost as you would expect with our perverse weather!

(There was a clearish spell between nine and nine thirty, but we saw no meteors, much to Mary's disappointment. We hope for a better show next year! Ed.)

Jim Cook



## NEIGHBOURHOOD WATCH

Jean Colquhoun and I share the same owl. We live in adjacent streets, at the same height from the Perth Road with trees in between. My view of the owl, a **tawny**, is mostly a rear view, as it takes off from a lamp-post and floats through the trees towards Jean. She has two **cats** who bring her in **mice** which she then releases (including one escapee hiding inside her Hoover) and returns to the garden for a second chance - or third or fourth. Perhaps she should tag them! My neighbour's killer cats, however, take no prisoners. Nothing furred or feathered gets a second chance around here. Wise old owl!

Doreen Fraser

## ARTHUR'S SEAT

Arthur's Seat volcano is probably one of the most extensively studied volcanoes anywhere, lying as it does only about a mile or so from the centre of Edinburgh and because it has such a wide variety of exposures and rock types with easy access. The present topography is not readily recognised as the remnants of a long extinct volcano, appearing merely as a series of hills, valleys and cliffs seemingly unconnected apart from their proximity to each other, but geologists have managed to deduce the probable sequence of events which produced the present world-famous skyline.

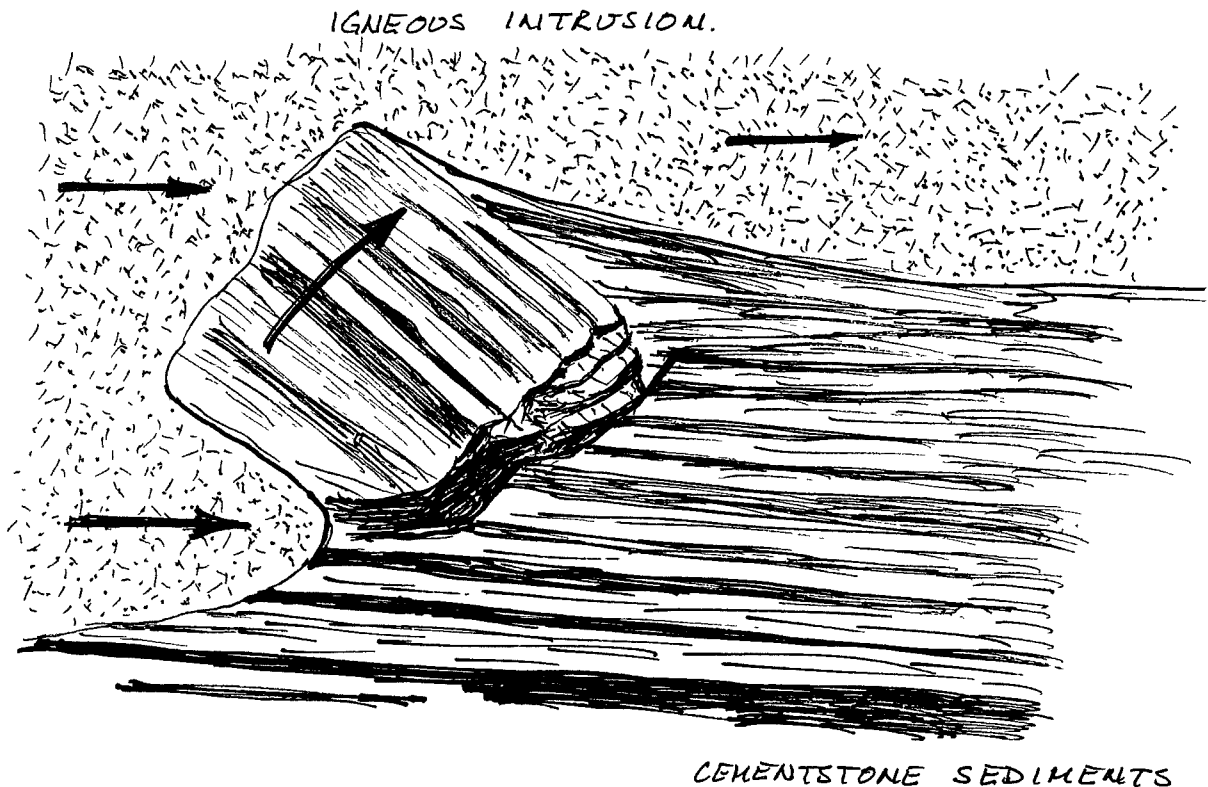
With the help of modern technology it is possible to determine the age of igneous and metamorphic rocks with a fair degree of accuracy. The age of sedimentary rocks can be inferred from their association with their igneous neighbours, i.e. older or younger than them, and from their fossil content. By these methods the age of Arthur's Seat volcano has been estimated at about 325 million years.

The volcano itself did not erupt in one violent episode but as a series of effusive molten lava flows, sometimes spewing out over the surrounding countryside and/or being injected between the beds of the surrounding sediments (sills). These events were interspersed with more violent explosive eruptions of rock fragments and ash, producing thick layers of tuff over the earlier deposits. The length of time between successive eruptions varied, sometimes they would be almost continuous and sometimes sufficient time would elapse to allow the lavas to degenerate into a soil and for plants to become established before being covered by the next eruption. Evidence for this is found in the

existence of plant fossils between different lava flows. It is possible to identify at least thirteen different lavas over the area of Arthur's Seat. It should be remembered that at this time Scotland lay much closer to the equator than it does today and the land around Edinburgh was probably covered by a shallow sea. At any rate the rocks into which the volcano erupted were cementstone (a clay-rich limestone), shales and sandstone which can still be seen today.

In its early existence the volcano would have had an outline much like modern volcanoes with a distinctive cone and probably covered an area of a few square miles. Subsequent major Earth movements caused faulting and tilting of the area and weathering and erosion over the millions of years has finally produced the topography we see today. The two most prominent features of the volcano, the Lion's Head and the Lion's Haunch (so called because they are said to resemble the outline of a lion at rest) are the remains of the two main volcanic vents. Most of the up-welling lavas and explosions of ash passed up these vents. The vents then became plugged by solidified lavas which were subsequently shattered and were mixed with agglomerates, tuffs and basaltic intrusions, all of which now fill them. Other less prominent vents (sometimes referred to as parasitic vents) were much less active. These include the Castle Rock Vent, the Craggs Vent, and the Pulpit Rock Vent.

The sills, which form an important part of the volcano, are best expressed in the cliffs of



*Explanation:* Block of sediment is clearly torn upwards. This can only be explained by intrusion of sill and not by sedimentary processes.

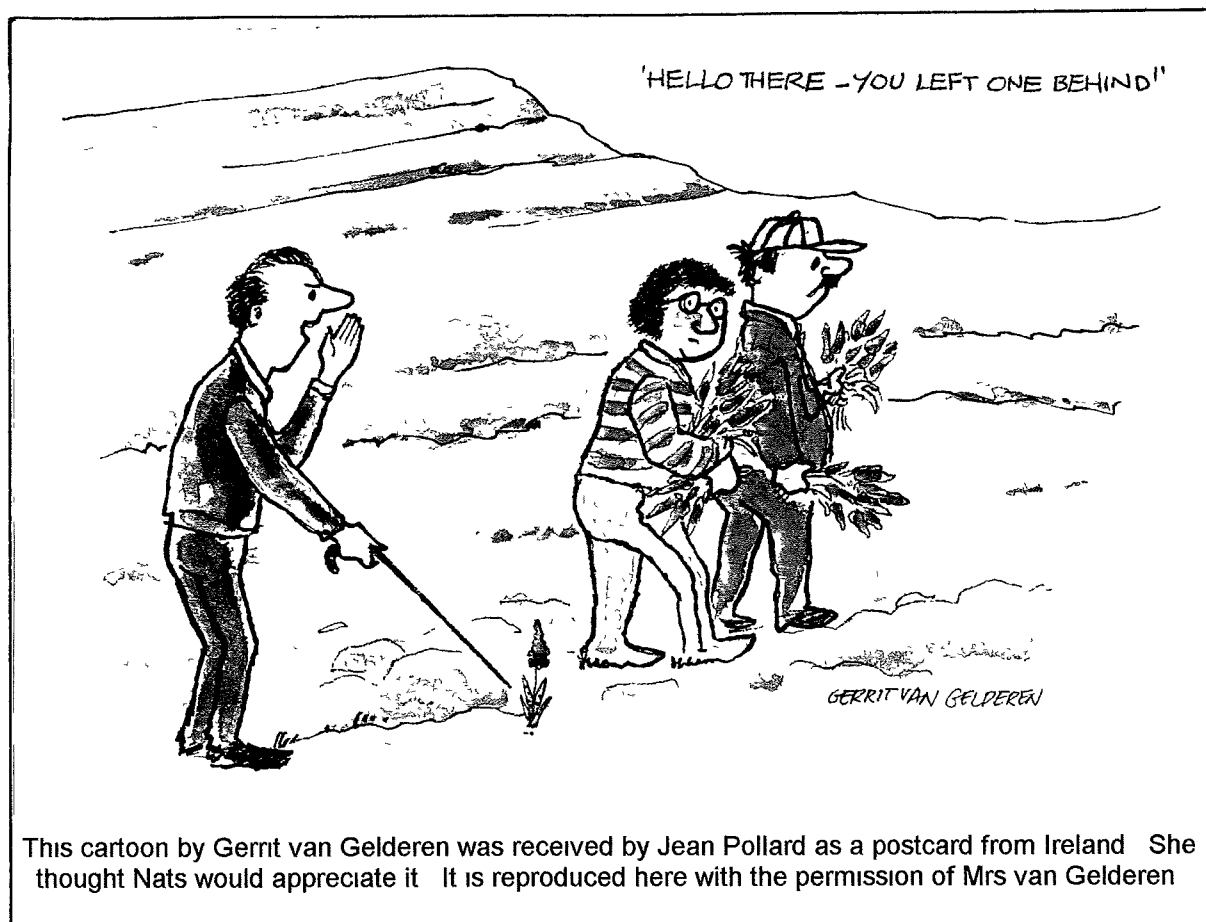
#### HUTTON'S SECTION

Salisbury Crags and Samson's Ribs. These are the exposed and eroded edges of the basaltic sills and the 'ribs' are the columnar jointing which formed when the lavas cooled. The columns are always at right angles to the main cooling surfaces, in this case the top and bottom of the sill. An important feature in the Salisbury Crags is Hutton's Section, named after James Hutton the famous eighteenth century Scottish geologist who formulated some of the fundamental principles of modern geology. The section shows the contact between the sill and the underlying cementstone sediments and the nature of the contact can only be explained realistically by the intrusion of molten rock into the sediments. This proved to be conclusive in deciding the argument between those who believed that

the sediments This proved to be conclusive in deciding the argument between those who believed that all rocks had a sedimentary origin, called Neptunians, and those who, like Hutton, believed that igneous rocks solidified from a molten state and had their origins within the Earth, called Plutonists.

Doug Palmer

**Note:** Our first excursion of 1999 on May 8th will be a visit to Dalkeith Butterfly Farm and Arthur's Seat Please see excursion details enclosed with bulletin mailing, or contact the excursion secretary (address on page 1)



## MARVELLOUS MOMENTS

6th December

A single honk above our heads attracted our attention as we worked in Carsegowniemuir quarry There, just a hundred or so feet up in the chill air, was a large skein of **pink-footed geese**. They numbered about 150 birds and were coming straight towards us We tried to freeze into invisibility but the geese paid us no attention as they churned over. A few slightly musical calls spilled from the group but the dominant sound was the whistling rustle of the winnowing wings, a marvellous sound They disappeared rapidly to the south-west, in the direction of Balgavies Loch

The same afternoon near pond four, as the sun lowered towards the snowy horizon, a **goldfinch** came up very close to us, at times only a metre or two away as it investigated dead **thistle** heads for any possibility of food It was marvellous to see the bird so close The gold on its wings and the bright red on its head showed clearly but the gold patch on the head was not easily

visible The unfortunate creature must have been desperate with the freezing temperatures (about -6°C) and the snow on the ground I hope it survived

A few minutes later a mournful cry carried through the still air It came as a coughing bark from fairly close by, perhaps at the far end of pond five where a rocky den exists It was a fox. The call repeated a few more times and then lapsed into silence

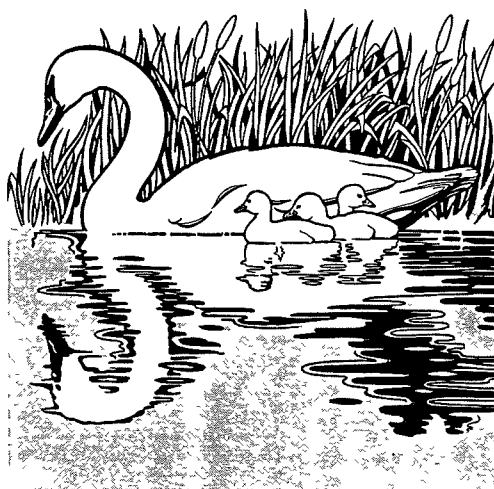
Although we'd had a busy time, the few marvellous wildlife moments made it all worthwhile Why don't you come up to the quarry for the same chances of seeing and hearing wildlife?

Jim Cook

## MUTE SWANS - BARRY MILL

A pair took up residence on the Mill Dam early in December 1997 Nesting on the north island started in late March 1998 and the first egg had been laid by 6th April. Eight cygnets successfully hatched and were on the water by 23rd May This was reduced to six and on 11th June, the family forsook their home, walked down to the mill, and swam down the burn They took up residence in a field below Ravensby Hall The parents tried several times to bring the growing cygnets up the weir below the mill bridge but always failed The male was back on the dam on 6th August and the female, with the remaining five cygnets, moved downstream to Carnoustie, spending the rest of the summer on the golf course Early in October the male flew away and at about the same time the rest of the family were rounded up by the SSPCA and moved to Broughty Ferry harbour They stayed there in the company of other swans until the end of October but, since they were not ringed, we can only wonder where they went from there

Peter Ellis



## NATS MUST BE BEATEN and NATS A PROBLEM FOR LABOUR

What have we done to deserve newspaper headlines like those? I didn't know that Dundee Naturalists' Society was that important Do they know something that we don't? Why are they picking on us? Who are 'they'? Am I being followed? Is paranoia coming on?

What a relief to discover that the headlines and articles refer to the Scottish Nationalists, not the Naturalists!

Jim Cook





As many of you will know, the Dundee Museums have a computerised wildlife database [Naturebase] which covers the local area.

We are always interested in obtaining any records for inclusion in this project. They can be brought or sent to the museum as extracts from your field notebooks or on one of our many recording forms. The computer is best at processing long lists of species very quickly where details of Locality (with Grid reference), Date and Observer remain constant. All records are welcome, and recording forms are always available at the museum.

Further Information.-

Telephone 01382 432069



# DUNDEE NATURALISTS' SOCIETY

## *Summer Programme 1998*

- Saturday May 9th Deep Sea World and Rock Pools** Leaders: J. Cook & D. Fyffe  
This is a unique opportunity for an underwater safari with a wide range of fish and other marine wildlife on view. We also hope to have a short talk from the Centre staff, followed by a visit to a rocky coastline to find some sea-shore wildlife for ourselves. An entry fee is required to visit the Centre.
- Saturday May 23rd Chatelherault Country Park** Leader: Margaret Duncan  
The focus of Chatelherault is the recently restored 250-year-old William Adam hunting lodge and summerhouse built by the Dukes of Hamilton. It is set in a 500-acre park adorned by the famous Cadzow oaks, some as much as 700 years old. The Avon gorge includes an SSSI with numerous mosses, ferns and liverworts and there are remnants of ancient broad-leaved woodland. Footpaths of up to 8 km are available and also an exhibition within the lodge. A small number of ancient white cattle may be seen.
- Friday June 5th Loch Lomond Weekend** Leaders: Jim Cook & D. Palmer  
The weekend excursion this year is to Loch Lomond-side, staying at the Cobbler Hotel in Arrochar. The area around Loch Lomond is rich in natural history interest with some reasonably easy climbs to obtain fine views of the surrounding countryside. Our weekend will include a visit to Inchcailloch island in the Loch and the Nature Reserve near Gartocharn. On Sunday morning we will go to Inveruglas and have a walk up Glen Sloy to Loch Sloy reservoir. The return journey will be broken with a short visit to a natural history site, yet to be decided.
- Tuesday June 9th Dunino Den & Bluebell Wood** Leader: Mrs. Jean Silvers  
This is an evening walk to enjoy the delights of a fine bluebell wood followed by a visit to the site marking the early establishment of the lines of meridian on the earth's surface. Meet at the bus station in St. Andrews at 7.00 pm.
- Saturday June 13th Isle of May** Leader: Dorothy Fyffe  
The boat for the Island will leave Anstruther at 1.30 pm and return to Anstruther at about 6.30 pm. The return boat fare is £12.00 for adults, £10.00 for senior citizens and £5.00 for children. The bus will leave Lindsay Street at 10.00 am arriving in Anstruther about 10.45 am giving you time for a walk around the town and a cup of tea or whatever. The boat company requires to know the number of passengers and that the fares be paid one month before the trip. Please send your cheque for the appropriate fare, (made payable to D.N.S.) to Dorothy not later than 9th May.
- Saturday June 27th Glen Mark up to Queen's Well** Leader: Brian Allan  
Glen Mark is a small Glen at the head of Glen Esk. The bus will park at the car park near Invermark Lodge from where we will walk along the Glen as far as the Queen's Well. This is a gentle, fairly level walk of 4 to 4.5 miles round trip, with plenty of upland plants and flowers and, hopefully, wildlife to be seen. On a previous visit by the Society to this area two new sites of the rare Small White Orchid were found and perhaps may be seen again this time. Although this is not a strenuous walk an easier and shorter walk may be taken to Loch Lee. This can be as little as about a mile or longer as suits you.
- Saturday July 11th Sidlaws** Leader: Gordon Maxwell  
That part of the Sidlaws which lies on the northern perimeter of Dundee will be the venue for our first July walk. The south facing slopes are remarkably rich in wild life. At least twelve species of butterfly can be seen, and bird life can include short-eared owl, long-eared owl, red grouse, buzzard curlew, and many smaller species. To the north there is extensive moorland including many wet areas interspersed with isolated stands of larch and Scots pine. In this area can be found at least three species of orchids. There is also a resident population of black grouse and the odd pair of roe deer. The green Hairstreak is a thriving species here but may only be seen around April-May. The area is criss-crossed by many tracks giving a choice of routes. This will be one of our shortest bus trips and if the weather proves to be inclement one can always return at a later date and examine at leisure the various sites which will be pointed out on the day.

**Tuesday July 21st Barbecue at Carsegowndiemuir Quarry** Organisers: G. Maxwell & D. Palmer  
Meet at the quarry in time for the barbecue which will be ready at 7.00 pm. Come and see the results of work being carried on at the quarry and the progress of the trees planted there over the past twelve years. Please try to share cars as parking at the farm buildings is limited.

**Saturday July 25th Morrone Wood** Leader: Bede Pounder  
Morrone Wood covers the hillside immediately to the south of Braemar, and commands a panoramic view across the valley of the Dee to the Cairngorms. It is a Downy Birch-Juniper community, and probably the best example in the country of the type of birch wood that covered large areas of the highlands soon after the waning of the Pleistocene ice sheets.  
Its nearest equivalent is in northern Norway. Though much of the wood is heavily grazed by Red deer, pockets which have been fenced for more than two decades show prolific natural regeneration. Aspen and Rowan thrive in places and there is plenty of heather on the moorland edges. The soil is predominantly acid but with calcareous pockets, so, with the added variety of different degrees of drainage, a varied flora can be guaranteed. Look out for Alpine Cinquefoil and Northern Bedstraw among the Juniper, and Bog Asphodel, Yellow Mountain Saxifrage, Butterwort, and Cotton Grasses and Varerian in the boggy patches. You might also be lucky enough to find Scottish Asphodel! Butterflies, especially Dark Green Fritillaries, will be about this time of year, while for bird-watchers, Chiffchaffs, Willow Warblers, Spotted Flycatchers and Tits should be seen, as well as Lapwings, Oystercatchers and Curlews in the surrounding grassland.  
Although on a hillside, gradients in the wood are nowhere excessive to anyone with stout footwear.

**Saturday August 8th Elie to Shell Bay** Leader: Roma Millar  
This walk is approximately four miles in length. After a comfort stop at Elie Harbour the bus will take us to the end of Shore Road, and the walk proper will start from there at Earlsferry Links. Going to the end of the golf course the path may be followed, at low tide, over the rocks using chains at fixed intervals for assistance or alternatively up a zig zag stairway to the top of the headland. The hillside has a very rich flora and the shoreline has a good variety of birds. The formation of the rocks and caves is well worth seeing. Past Kincraig point and the caves we come to Shell Bay. By taking a walk out to Shooter's point at least four of the famous rock benches (raised beaches?) can be seen. Rounding Ruddons Point and the main headland we come to Cocklemill Burn and salt marsh. Following the burn we return through the Shell Bay caravan park to its entrance where our bus will be waiting to pick us up at about 4.00 pm.

**Saturday August 22nd Mystery Tour** Leader: Jim Cook  
This is always an interesting item on our summer programme. I'm sure Jim will once again manage to 'mystify' us so come along and have your curiosity satisfied.

**Saturday August 29th Barbecue at Lunan Bay.** Leader: Brian Allan  
The barbecue will commence at the hut at Lunan Bay at approximately 5.00 pm but you can come down to the beach any time before that and have a walk along the beach and/or cliffs to whet your appetite.

**Saturday September 19th Alyth Den & Caddam Wood Fungus Foray** Leader: Gordon Maxwell  
This walk takes in two well-known beauty spots. Alyth den, with the Alyth burn running through it, is probably the more scenic of the two. Lying near the Highland Boundary Fault, it has an impressive rocky gorge of Old Red Sandstone and conglomerate. It is an excellent fungi location and usually contains some excellent edible species (baskets at the ready!) and also some uncommon to rare species. Caddam Wood, by Kirriemuir, is a fairly large mixed wood with possibly even more fungal species than Alyth Den, (also many edible types). 'Lone Ranger' types should keep checking their bearings as it is easy to become disorientated in the depths of the wood.