

Dundee Naturalists' Society

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DUNDEE NATURALISTS' SOCIETY

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2016

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The Bulletin cover illustration is by Shelagh Gardiner and shows the Society's emblem, the dwarf cornel. Other illustrations are by Anne Reid, Jim Cook, Christine Reid, Mary Reid and Artfile. Two pages of colour photographs have been included this year. All other, unacknowledged photographs are by Anne Reid.

EDITOR'S NOTE

Thanks to all members who have submitted articles and reports, especially those who have done so for the first time this year. Thanks to Jim Cook, and Mary Reid for proof reading and helpful comments. Thanks also to those who have willingly, and promptly, supplied photos at my request.

Contributions for the next Bulletin, articles, line drawings and photos, are always welcome and may be submitted at any time during the year. The deadline for submissions is usually the end of the calendar year.

Our website is www.dundeenats.org.uk . Facebook page: Dundee Naturalists' Society

Anne Reid

SOCIETY REPORTS

PRESIDENT'S REPORT

Another year, my third and final one as your President, has passed and oh so quickly. Where does the time go? Since I joined the Nats 45 years ago I have always found it to be a 'happy' place, where members happily share their knowledge with others wishing to learn, and make new members feel welcome, never becoming elitist, but remain inclusive. This is still as I find it today and long may it continue.

There is a tremendous amount of goodwill throughout our Society, and my thanks must go to the current members of Council who make the outings and lectures run like clockwork. My special thanks go to my two Vice Presidents, David and Barry, and our Secretary Lorna and Treasurer Jenny, two vital positions that keep us on the straight and narrow. The Bulletin that appears at every AGM is ably edited by Anne, as one of the many tasks she carries out for the Society, and Davie who makes sure the outing costs are always collected and banked after each trip. Lastly a big thank you to all our members for contributing to the success of our Society, by supporting our lectures, outings and social occasions.

This year the outings have, on the whole, been well supported, and we would hope to build on this for the coming season. The winter lectures continue to be popular in our new accommodation, the Dalhousie Building, and I am sure your Council will continue to plan an interesting and entertaining range of outings, talks and lectures in the coming months. We will also look to schedule some other workshops similar to the one on identifying mosses, which was well attended.

On the 30th Anniversary of Carsegowniemuir, we laid on a free bus and good day was had by all at the barbecue, giving many a chance to see the superb birdwatching hide. My thanks go to Jim Cook for his tireless commitment to this project. Last year saw us purchase two picnic tables and winter covers. These were erected and painted with preservative by a band of members and put in place ready for the summer BBQ.

My two terms spent as your President and other Council positions during these 45 years have been life changing, and I would not have changed a thing. So thanks to you all for so many happy years.

Finally my sincere thanks must go to my long-suffering wife Jenny, without whom none of this would have been possible. She got me interested in nature before we were married over 50 years ago and has encouraged me every step of the way.

Brian Allan

CARSEGOWNIEMUIR QUARRY REPORT

The year began not with a bang but a splash, and how, with the monsoon of the first week in January. The saturated soil couldn't absorb any more water and the quarry filled rapidly, as Ronnie Young reported, to the greatest depth ever. Loraine Young added that they'd had between 7 and 8 inches of rain in five days. Much of the main path on the lower ground between the ponds was flooded to a depth of two metres or more and the bird feeder table below the hide was tricky to reach even in wellies. All the back-paths, although muddy, are high enough to escape flooding. Ponds 2, 3, 4 and 5 were all connected by several metres of cold clear water, which even covered the ridge of higher ground that usually separates ponds 3 and 4 to an estimated depth of over a metre. There was even a few centimetres of water - for the first time ever - over the dumped stones beside the north gate; running from the pond 2 side over the stones north-east into the pond 1 side. Afterwards, a 'high tide mark' of debris on the main steps showed that the water had reached as high as the third step down from the top.

At the end of the month Ronnie Young reported that the violence of storm 'Gertrude' had caused little significant damage, although two of our smaller dead **elms** were snapped off and blown down. Significantly, perhaps, both these had previously exhibited considerable displays of the wood-rotting fungus **velvet shank**, *Flammulina velutipes*. Even although the ground was completely saturated no large healthy trees were uprooted and the hide was totally unscathed. Water levels remained high and didn't fully return to normal until early March. Even then the effects persisted into mid-summer: only small numbers of **adder's-tongue fern** leaves appeared and many fewer **orchids** appeared in their usual site along the south ditch. The single **orchid** beside the main path near pond 2 didn't appear at all. We can only hope that the root tubers have survived and will push up a flowering shoot again next year.

We began tree planting rather early this year since it had been a very mild but wet winter, with the only prolonged frosty spell in February and early March. By the end of March, with a lot of help from Ronnie Ogg, who brought along extra wire mesh, and from Andrew Ferguson, Mike Sedakat and Jackie McKay, a total of 33 trees had been planted. These were five **oaks**, ten **alders** and a large **gean** donated by Margaret and Peter Bainbridge (all spread along the south edge), 11 **pin**es (four between the hide and the road to the north, six along the south edge and one close to the north-east corner of the hide), five **hol**lies and a single **rowan**. Together with the ten trees planted in the autumn, they form the grand total of 43 trees, the largest number planted in one season since the 1990s.

A total of 15 rooted cuttings of **honeysuckle** and a few more small **ivy** plants reinforced the plantings of the previous autumn. All were placed at the bottom of trees, protected from **rabbits** behind a rectangle of wire mesh. Finally, ten small **elders** were transplanted from under trees at the eastern end of the quarry to form a long hedge-like clump along the top of the 'south bank'. The hope is that they will develop into a substantial hedge and windbreak at the edge of the pines of area G. All of the trees and most of the shrubs grew well in the summer; several of the **pin**es performed exceptionally well, putting on much more growth than usual for a pine's first year in the quarry. In the autumn, however, the **elders** must have been found by a **roe deer**, which frayed the bark of several and nibbled the leaves of others.

Towards the end of April, Ronnie Ogg brought along a tin of brown matt paint which was used to produce a mottled effect on the north-facing section of the roof of the hide, sprinkled with a mixture of dried soil and fragments of ferns and other organic matter. This has succeeded in reducing the shine off the green metal roof, particularly in low winter sun, and the new roof colour certainly does help reduce visibility from the road, even when the leaves have fallen in autumn. Just after this work a very cold snap in the last few days of April brought about 10cm of snow to the quarry one night, although it melted rapidly the next day.

During the long dry spell in the middle of May, Ronnie Ogg and Mike Sedakat, Alban Houghton and Anne Reid joined Jim outside the shed at the cottage to assemble and paint (with a green waterproofing and preservative mixture) the two picnic tables. The Youngs were good enough to transport them by tractor up to the south fence close to the dumped stones. From there the 'gang of five' Nats was able to carry them along to the barbecue site in the quarry. The two tables were placed on stone slabs to help keep the bases of their legs dry and reduce rotting. The same day Mike and Ronnie helped to move a large and very heavy slab to the main steps and use it to replace the bottom step. Later in the month the rebuilding of the rest of the main steps was completed using the largest available flat stones.



In early June Mike Sedakat helped Jim dig out and flatten the sloping path immediately round the south side of the hide - which could get quite slippery in the winter wet. During June and July Ronnie Ogg, Mike and Jim spent several afternoons using a small inflatable canoe to survey the three largest ponds in greater detail than ever before. They measured the depth at intervals along transect lines so that charts could be drawn showing the depth contours in all three. Not surprisingly, pond 5 was found to be the deepest, at 9.5m (over 30 feet in old money!), with a firm rocky bottom. At the same time the surface and bottom temperatures were measured in each pond with a sampler bottle but few signs of water stratification were noted, the pairs of temperatures not being significantly different. Ponds 1 and 2 were surveyed with a long measuring stick later in autumn. The full details of all 5 ponds will be recorded in the 5-year report to be published in 2017.

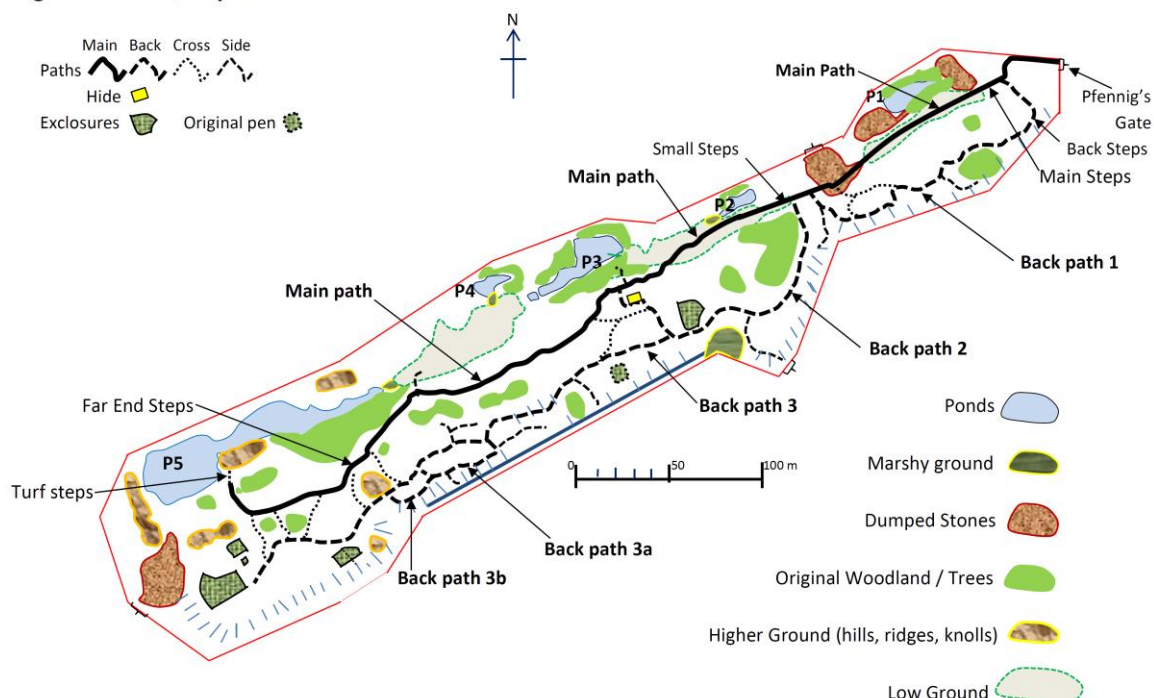
The bird table continues to attract considerable numbers of small birds throughout the year, although feeding is reduced in the summer. **Great, blue** and **coal tits** are among the most common visitors, along with numbers of **tree sparrows**, **chaffinches**, **robins**, **yellowhammers** in summer, often a **great spotted woodpecker** or two, a few **dunnocks** and **pheasants** on the ground below (but no **red-legged partridges** this year). For the first time, a pair of **siskins** became regular visitors to the niger seed for a while during the summer (but not a single **goldfinch** this year). The feeders have become a regular and reliable source of entertainment for visitors, since the hide provides such an excellent view.

In July the quarry lost one of its keenest devotees. Millie the lurcher had been ailing for more than a year and latterly she was getting very lame, losing weight and ageing visibly. She finally died

in the middle of the month and was buried beside Pfennig close to the lone spruce tree on the grassy central plateau. Purdey continues to soldier on alone.

In July and August the paths were cleared with the brasher by Ronnie and Jim and a number of rocks were removed to make the clearance effort easier. The main path at the far end was extended to the lip of pond 5 and side-path 3 was extended to near enclosure 2. A final cross-path was added between the two extensions so that it is now possible, for the first time, to walk an extended figure-of-eight entirely on a cut path without returning along the same route. (A larger version of the map below is available on application. Ed.)

Carsegowniemuir Quarry Paths



The 30th anniversary celebration barbecue took place on 20th August, as planned, and went very well. (See report on page 26. Ed)

In late August and September Ronnie Ogg helped Jim to widen and improve some of the narrow stretches of the back-path to the hide, and the cut turf was used to complete the path across the dumped stones. Tree checking and clearance continued and more work was done to help complete the most important path improvements.

During October the fence along the southern boundary was repaired and improved and the lowest branches on a large **willow** overhanging the south fence were cut off to remove pressure on the top wires of the fence. A week or two later the large planted **willow** tree near pond 1 which had been partially blown over at the end of September was lightened by cutting the largest branches overhanging the path. As an experiment four poles, fresh from the cut branches, were dug into the soil along by the main path nearby. We'll have to wait until next year to see if any of them will develop roots and shoots to eventually grow into a new tree. The same applies to two more willow poles, already rooted by being left in pond 3 for several months, which were dug in close to the other side of the wicker fence by the hide. The heavy job, though, was digging a total of 15 holes in preparation for the tree-planting day at the end of the month. (See report on page 31. Ed.)

In November a few more holes were dug and trees planted before the winter really set in. A little more work was done to finish off the paths, particularly re-grading a steep slope on the new cross path at the very far end. However, less important improvements such as widening the narrow sections and removing protruding stones are likely to continue for some time yet. Finally, the wicker fence covering the hide entrance was completed to head height, at long last, on a mild day at the start of the winter.

Jim Cook

TECHNICAL CONVENOR'S REPORT

We have continued to promote active recording with members individually recording plants and animals during outings or through organised society activities. There was also a good turn out from members at the Tayside recorders forum meeting on 7th May in Perth

The moth trapping survey in Corrie Fee is becoming an annual event and this year it took place on 13th August, with rather too many **midges** for comfort.

Once again we organised two joint meetings with the Botanical Society of Scotland for the Urban Flora project; Dudhope Park, Dundee, concentrating on **lichens**, and Shiell Street in Broughty Ferry. Carrot Hill in Angus was effectively a joint meeting with Butterfly Conservation, as one of our main objectives was to record **moths** and **butterflies** in a very under-recorded square.

Members continued to carry out recording at outings including Barry Buddon, where, once again, we changed the date to early June and recorded 48 species of **moth** at Cowbyres and five more elsewhere on the day. The Barry Buddon meeting was also used to launch the **small blue** and **kidney vetch** survey, with a turnout of 15 people. Great success was made with records from part of the training area near the eastern coast with numerous **small blue** detected.

One of the prize records in 2016 goes to Cathy Caudwell who found a remarkable **bee beetle**, a species restricted to the north of Scotland, near the Muir of Dinnet visitor centre.

Members took part in the Easthaven bioblitz on 26/27th August with Nats involved in bat detecting, moth trapping, botanical, bird and marine recording.

The Trottick Ponds evening walk produced records of **common pipistrelle**, and the fungus foray to Edzell produced a remarkable haul of 53 species including some rare ones. There are accounts of most of these activities elsewhere in this Bulletin.

David Lampard

OBITUARIES

JANE STEWART

Jane died on 26th May 2016 aged 89. She was an enthusiastic Nats member and came to lectures, bus trips and weekends. She was well known for her questions at the end of lectures and would normally be seen in a tweed skirt and stout shoes, even in the field. Though brought up in Monifieth, Jane was a long-term Barry resident and very well known in Barry and Carnoustie. She was also a member of the local RSPB group and ADBC and was a regular attender of their meetings too.

Anne Reid.

MAMIE BRUCE-GARDYNE

Mamie died on 10th March 2016 aged 82. She was a keen Nats member for a number of years and served on Council for three years, though the combination of running a B and B and ill-health meant that she had not come along to the Nats in a good while.

Jim Cook

WINTER MEETINGS NEW YEAR WALK, CARNOUSTIE

2nd January

This was the barbecue that wasn't - for the first time in recent memory no charcoal was lit as the weather was blowing a gale with continuous rain flurries of varied intensity. Though not particularly cold, it would have been very unpleasant standing around outside. It helped that we were at Dorothy Fyffe's house in Carnoustie and that she invited us all to squeeze in to her rearranged front room.

Brian and Jenny arrived early bearing the customary mulled wine which was much enjoyed by everyone but more so by the non-drivers - the rest of us have to be careful these days with the lowered alcohol threshold for drivers. Despite the weather Mary set up an animal hunt (plastic toys) in the garden with an anagram to solve at the end.

Fortified by the mulled wine and some mince pies and Christmas cake, most people then decided to have a walk to work up an appetite. Various routes were taken to the shore and all were on the lookout for 'interesting' items on the beach while also looking at the bird life which was rather



Little auk, Arbroath harbour, January 2016
Photo Bob McCurley

sparse. Most birds were sheltering from the wind and shore birds were keeping clear of the foamy, breaking waves beyond the rocks but we did see **oystercatcher, redshank, turnstone, bar-tailed godwits** and assorted **gulls** on our walk. While most kept their walk short, six of the more hardy souls went as far as the Craigmill Burn with the opportunity to look for the **cowries** sometimes found near there. No **cowries** were found, but Cathy Caudwell claimed the prize for best find of the day with a dead **little auk** - a species which many of us had never seen before, dead or alive. This was then handed over to David to take to the Dundee Museum for its collections.

On our return the oven was on and food was being heated, the easy way. Once refuelled a few people attempted Mary's animal quiz, with mixed success - the anagram proved harder than intended, but Dorothy's garden was well-inspected in the process.

Our heartfelt thanks to Dorothy for her hospitality, and to Doris for tidying up at the end, especially as Anne and Mary had to leave promptly to enable Mary to get her train back to Cambridge later in the afternoon.

Anne Reid

RETURN TO THE PICOS DE EUROPA

Henry and Margaret Taylor - 12th January

Henry and Margaret Taylor have taken a keen interest in wildflowers and photography for many years and have visited the Picos de Europa in northern Spain on several occasions.

This mountainous region consists mainly of limestone, but there are areas of acid rock which add to botanical diversity. The upland mass is traversed by three main gorges and rises to 2600 metres. When the south of Spain was occupied by the Moors, the Picos prevented them from reaching the north. This region also featured in the history of the Spanish civil war, particularly in relation to the bombing of Guernica.

In May and June the countryside and mountains are a riot of wild flowers, some unique to this location. The scenery is dramatic in places, although sometimes shrouded in mist which blows in off the Bay of Biscay.

In the series of excellent slides, the **orchids** featured included **heart-flowered serapia** (*Serapias cordigera*), **pyramidal orchid** (*Anacamptis pyramidalis*), **sawfly orchid** (*Ophrys tenthredinifera*), **lizard orchid** (*Himantoglossum hircinum*) and **early purple orchid** (*Orchis mascula*).

There were **narcissi** such as *Narcissus bulbocodium*, *N. nobils*, *N. asturiensis* and *N. triandrus*. **Saxifrages** included *Saxifraga canaliculata* and *Gentiana occidentalis* was also seen. Other species shown included *Echium cantabricum*, *Fritillaria pyrenaica*, and a small, very attractive version of *Ranunculus parnassifolius* on scree.

Elsewhere were *Androsace villosa*, *Globularia repens*, *Mattiola fruticulosa*, *Pinguicula grandiflora* and *Aquilegia dichroa*. There were unusual variants of **cowslip** (*Primula veris*) and **wood anemone** (*Anemone nemorosa*).

Apart from the flora a local version of the **chamois**, known as **rebeccos**, was photographed at close range, although the extinct **bear** was only represented by a statue.

Henry and Margaret also described local life in the Picos including bagpipes, cheese-making and liquor distillation. There was a special technique for drinking cider by introducing air bubbles. At the end of the lecture several members of the audience were heard saying that they were keen to visit the Picos.

Brian Ballinger

MEMBERS' NIGHT

26th January

The evening was in two parts. We started with the results of the photographic competition before moving on to members' slides.

Photographic Competition 2015

The subject for the competition for 2015 was 'My Favourite Natural History Photograph' and this attracted 17 entries from members. In order of receipt, these were:

Mary Harwood: Seafood (limpet, Carlingheugh)
Samantha McNab: Blue Butterfly
Bob McCurley: Grass of Parnassus
Davie Stein: Grebes, Clatto
Dorothy Fyffe: A Bird in the Hand (golden plover chick)
Joy Cammack: Wheat Ears (roe deer in field)
Jim Cook: Pink and Green (campion)
Brian Allan: *Caltha palustris* (marsh marigold)
Anne Reid: Waiting in the Rain (young swallows)
Wendy Irons: Red-footed Falcon Hovering
Stevie Smith: Red Rose for a Blue Lady (damselfly in rose)
Daphne Macfarlane Smith: Love is in the Air (paired damselflies)
Barry Farquharson: Shoveler
Jon Cook: Unfurl (fern)
Jim Smith: Red-legged Partridge
Clare Reaney: Auchtermuchty Common
Alban Houghton: Toads



The competition was judged by local photographer Ken Drysdale and Lorna Ward, from the Nats Council, and all administration was done by Brian Allan. These three must all be thanked for contributing to the success of this fifth year of the competition, as must all the members who submitted entries. Though not able to be present at the meeting, Ken said that the standard was once again very high and that the choice for places was extremely difficult.

The winner was Barry Farquharson, with his beautiful photograph of a male **shoveler**, and he was presented with the Kim Eberst Memorial Trophy and a certificate by Brian. (Photograph printed in 2015 Bulletin.) Second and third were Wendy Irons and Brian Allan, respectively, who were presented with certificates.

We then moved on to the compilation of members' photos which Brian had put together for the main part of the evening. Slides shown included:

Bob McCurley - A Partridge in an Apple Tree. An unexpected garden visitor of a **red-legged partridge** amongst the **apple** blossom and four **maggies** nearby. **Iceland gull** and **Mediterranean gull** at Arbroath and **peacock butterfly** at Lunan Bay. Then several Barry Buddon species, including **mute swan** with **cygnets**, **green hairstreak butterfly** and **six-spot burnet moths**.

Stevie Smith - Beasts, Birds and Bugs. A stunning shot of a **short-eared owl** at Elliot and a close-up of the serrated bill of a **goosander** followed by a **stoat** in ermine, a selection of insects and a **crab spider** eating a **meadow brown butterfly** on **ragwort**. The spider turned from white to yellow to match the flowers over two days.

Jim Smith - Birds and Beasts. A range of birds from **crested tit** to **great white egret** via **red grouse**, **black-tailed godwits** in flight and a hopping **dunnock**, with a **dolphin** and **red squirrel** for variety.

Davie Stein - Birds, Beasts and Lovebugs. A juvenile **robin**, sunning itself, and an adult **woodpigeon** feeding a juvenile in Davie's garden. Pairs of **toads**, **great crested grebes** and **green tiger beetles** - all distracted enough to allow close photography! The **short-eared owl** and a **kestrel** at Elliot and a **dipper** and **grey wagtail** elsewhere.

Jim Cook - Quarry Trees - Then and Now. Old and recent images of Carsegowndiemuir Quarry from its very bare windswept state to the luxuriant growth now present in places. A range of hard-working Nats digging holes, planting trees and building exclosures was also shown. The *piece de resistance* showed Jim and others removing a fallen tree with a second apparently identical copy of the photo having miraculously restored the hair on Jim's bald patch!!! (Well done Brian. Ed.)

Clare Reaney - Ethiopian Wildlife. An October visit to the mountains revealed a full range of plants and animals including **rock hyrax**, **baboons**, the endemic **thick-billed raven** and a **lammergeier**. **Baobab** trees, **giant euphorbias** and beautiful **orchids** were interspersed with images of farming life and cultivation, Ethiopian style.

Daphne Macfarlane Smith - From Butterflies to Sunsets. The colour difference between the antennae of **small skipper** and **Essex skipper butterflies** and the contrast in the wing pattern between male and female **silver-washed fritillaries**. **Swallows** nesting at a motorway service station and a **red squirrel** feeding from a fallen bird feeder. The sequence finished with several spectacular August sunsets taken from her Broughty Ferry home.

Brian Allan - Highlights 2015. A range of plants from various parts of Europe including an endemic **orchid**, *Himantoglossum metlesicsianum* from Tenerife and *Ophrys* spp., *Narcissus bulbocodium* and *Fritillaria lusitanica* from Cape St Vincent in the Algarve. A trip to Scandinavia produced *Primula scandinavica*, *P. stricta*, *Pulsatilla vulgaris* and *Rhododendron lapponicum* and finished with the **orchids** *Calypso bulbosa* and *Cypripedium calceolaris*.

Brian Ballinger - 2015 Update. A wide range including **foxes** in the garden, site condition monitoring (for plants) in the Kyle of Sutherland Marshes SSSI, **herb Paris** at Blair Atholl, three new sites for **twinklflower** in Easter Ross and **oyster plant** (*Mertensia maritima*) at Hilton of Cadboll. A **marsh frog** and *Sternbergia* sp in the Pindus Mountains in Greece and some **narcissi** in the Atlas Mountains of Morocco showed just how wide Brian's interests are.

David Lampard - 2015 Report. Some photos from Nats outings including the **cuckoo ray** at Easthaven, trees at the Birks of Aberfeldy, a very small **longhorn moth** and **mayflies** on the Melrose weekend and members on the Stannergate and St Andrews walks. Setting moth traps in Corrie Fee with midge nets being worn by all participants was a particularly memorable image - probably also vividly remembered by everyone present!

Alban Houghton - South Italy Butterflies. Species like **swallow-tailed** and **fritillary butterflies** which are similar to our own but subtly different and also **holly blue**, **adonis blue** and **pearl-bordered fritillary**. The **large brown** has very impressive eyespots and the **southern festoon**, photographed on **birthwort** (*Aristolochia* sp.) just looks exotic. Alban finished with a male **emperor moth** and the very rare **ladybird spider** seen in Dorset.

Once again, Brian had put together everybody's images into a seamless, single presentation and he was warmly thanked for all his efforts to make the evening so successful.

Anne Reid



HISTORY AND ARCHAEOLOGY OF SCOTS PINE

Prof Chris Smout - 9th February

A minor change from the advertised title of this talk enabled the Historiographer Royal for Scotland to focus on the history of human exploitation of Scottish pinewoods, and to entertainingly dispel some myths which have commonly been accepted as fact. He began by pointing out the irony that Scots pine, officially declared Scotland's National Tree by the Scottish Parliament in 2014, is actually one of the most widespread trees in the world, occurring from China to Spain, with Scotland very much on the edge of its natural range. And until the 18th century, its Scots name was 'fir', a Middle English word derived from Old Norse! However, we do have a distinct genotype with short

cones and short needles, which can form a uniquely Scottish habitat, Caledonian pine forest, supporting characteristic species including **capercaillie**, **pine marten** and insects including the **pine hoverfly**.

Pine first colonised Scotland about 9,500 years ago following the end of the last Ice Age, probably from a refugium now offshore, but it proved transient away from north-west Scotland, as it is outcompeted by broadleaved trees on better soils, and is highly sensitive to climate, especially wet and wind. Alder was replacing pine in the lowlands as early as 7,000 years ago. Scotland's maximum forest extent occurred about 6,000 years ago, but only a small part of that original forest cover was pine, and even in its core range in the Highlands, pine cover was far from universal. Around 4,500 years ago the forest briefly reached Orkney and Lewis, but by 4,000 years ago it was undergoing a major natural decline, driven by climate change and the spread of blanket bog. One author (Fenton) has controversially suggested that Scotland's natural climax vegetation should be seen as blanket bog, rather than woodland! Even in what we now consider the heart of the Caledonian forest, at Mar Lodge, pine disappeared around 2,400 years ago for several centuries. As recently as the 17th century, towards the end of the 'Little Ice Age', peat overwhelmed some pinewoods.

Humans and pine had colonised Scotland together - it's unlikely there was ever a time when the forests were without some human influence. Even Mesolithic man may have manipulated the environment by burning, although this was probably not a long-term limitation on forest cover - as Oliver Rackham wrote, "broadleaved woodland burns like wet asbestos", while the more combustible pinewoods are well-adapted to fire, which can create a good seedbed for natural regeneration in the absence of grazing livestock. By Neolithic times regeneration was probably being inhibited by grazing, as deer shared the forests with domestic cattle, and grazing pressure intensified in the Bronze Age and Iron Age, adding to the impact of metal tools.

By Roman times, prehistoric man had largely deforested the lowlands, and Scotland had probably less than 20% forest cover - much the same proportion as today. The pinewoods were less depleted than lowland broadleaved woodlands only because the latter grew on better soils, more sought-after for agriculture - although Bronze Age and earlier fields even underlie parts of Abernethy and Mar. 'The Great Bog' was as prominent as 'the Great Wood of Caledon' of Roman literature. But Tacitus 'had his own axe to grind' in exaggerating the difficulties of the terrain faced by the Roman army. The Classical tales of Tacitus and Ptolemy were rediscovered during the Renaissance, and further exaggerated by other authors - Boece added ferocious wild bulls, and Camden witches, to the challenges of the environment! In Victorian times, the notorious 'Sobieski Stewarts' applied the Germanic mythology of their own fabricated past to the Caledonian forest. Pine stumps found in peat bogs seemed to give credence to the story of the 'Great Wood', although we now know that in most cases those trees had died more than 2,000 years before the Romans arrived.

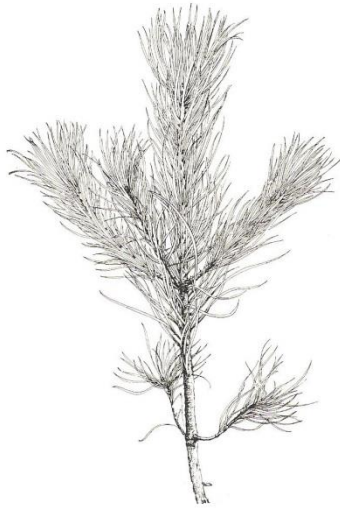


The Classical tales of Tacitus and Ptolemy were rediscovered during the Renaissance, and further exaggerated by other authors - Boece added ferocious wild bulls, and Camden witches, to the challenges of the environment! In Victorian times, the notorious 'Sobieski Stewarts' applied the Germanic mythology of their own fabricated past to the Caledonian forest. Pine stumps found in peat bogs seemed to give credence to the story of the 'Great Wood', although we now know that in most cases those trees had died more than 2,000 years before the Romans arrived.

By the 20th century, this aggregation of myths, described by Prof Smout as "twaddle" was seen as fact; even Fraser Darling believed it, calling the Highlands a 'wet desert'. More shamefully, despite modern archaeology, carbon-dating and pollen studies, it is still perpetuated by some authors today, in books such as Miles and Jackman's *Great Wood of Caledon: the story of the ancient Scots pine forest*, and even repeated by Chris Packham in a recent BBC *Winterwatch* programme!

Moving on to the history of human exploitation of pinewoods, there were further myths to dispel. Buildings used a lot of wood in their frame, even if the walls were built of stone or turf. Other uses included shipbuilding, and as early as the 17th century, timber was being floated down the Spey for this purpose. As well as structural timber, pine wood provided a source of fuel, tar and other

materials. Logs were also bored to make water pipes for use under the streets of London and other cities, although pine was inferior to elm for this purpose. However, as long as the pinewoods had a commercial value, they remained a carefully-managed resource, looked after by professional foresters. Local use was especially well-controlled, but even larger-scale felling by landowners was normally followed by regeneration. The Napoleonic Wars cut off supplies of timber from the Baltic and Scandinavia at a time before the transatlantic timber trade had become established, and resulted in the so-called 'Great Desolation' of British woodlands, yet the woods soon recovered; the record of this period can be seen in the age profile of existing 'granny pines'. Prof Smout said that no single episode of exploitation has been shown to exterminate a pinewood, and pinewoods remain almost everywhere that they survived in 1600 except for a few woods in the west, such as Glencoe, where their loss is a legacy of felling together with the Little Ice Age and uncontrolled grazing.



The work of Steven and Carlisle in the 1950s stimulated the modern interest in conservation of pinewoods, and in 1992 Caledonian forest became one of the Annex I habitats protected by the EU Habitats Directive. As early as the 1930s, joint pressure from the National Trust for Scotland and Royal Scottish Forestry Society prompted the Forestry Commission to make Glen Loy an early state-owned nature reserve, giving the pinewood there a degree of protection from wartime felling. After World War II, Beinn Eighe, including a substantial area of relict Caledonian pinewood, was declared Britain's first National Nature Reserve in 1951. Other nature reserves followed, but pinewood restoration did not become a high priority until the 1980s. Prof Smout argues against replanting wherever natural regeneration is possible, and that there is little point in conservation planting of naturally open land where natural regeneration is *not* possible, since true restoration would require the re-creation of a more favourable climate for trees. He is critical of the interventionist planting policies adopted by some conservation bodies such as RSPB and Trees for Life - although their efforts are not necessarily harmful, the results will be essentially artificial, and

should not be regarded as re-creating a natural environment, and much less as 're-wilding', which he considers a futile aspiration in the case of a habitat that co-evolved with humans.

Colin McLeod

SOCIAL EVENING

19th February

This year the Social Evening was held in the Queen's Hotel, which was a great success. The hotel gave us the Glamis Room for the social, with adjoining bar and a separate dining room through the bar. The tables were beautifully set and we enjoyed a hot buffet of stovies or vegetarian Stroganoff and a cold buffet with cold meats and various delicious salads. To follow there was a choice of chocolate or strawberry gateau and cream. Everyone agreed the food was good.

28 tickets were sold with 24 attending, enjoying quizzes set by Jim Cook, using Dorothy Fyffe's dingbats, pictures of strange birds and photographs of birds and animals to identify plus unusual views of Dundee. We split into teams of about four with "experts" spread around the tables as much as possible. Small prizes were won by all. Very good raffle prizes were brought in by members, including Davie Stein's beautiful turned-wood ornaments.

There were two presentations organised by Jim. Dorothy, our excellent, long-serving outgoing Treasurer was presented with a purse of gold sovereigns (chocolate) and a large gold chocolate sovereign by our President, Brian Allan. This was in keeping with the historical retiring Nats Treasurer of the 1880s being presented with a purse of real gold sovereigns before leaving for the USA. Brian Allan was presented with a certificate in hair restoring (by photoshop!), as seen in the touch-ups done to photos of Jim Cook at the Members' Evening.

Everyone said how much they'd enjoyed the evening and it was generally agreed that the Queen's Hotel was a good venue.

Kati Smith

MEXICO

Brian Ballinger - 27th February

We were grateful to Brian for stepping into the breach at short notice, to tell us about his trip to Mexico to see plants, butterflies and birds. The holiday was with Greentours in February 2006.

The tour started by Laguna Maria on the slopes of Volcan Fuego near Colima and some of the birds there were **great egret** and **American coot**. The first butterflies of the trip turned out to be a **gulf fritillary** and a **zebra long-wing butterfly** displaying warning colours. The plants often had large red trumpet flowers of the type which were attractive to hummingbirds. Plants seen included *Cosmos*, **Indian Paintbrush** (*Castilleja*) and the forest trees were covered with a wonderful growth of lichens.

Colima is on the junction of tectonic plates leading to an interesting backdrop of the actively puffing volcano, sometimes snow-capped. The **ruby-throated hummingbird** put in a welcome appearance here. The middle part of the country is dominated by **pine** and **oak** forest in which there are 25 species of **pine** and 100 of **oaks**. Some of the forest is now lost to logging and urbanisation. Several species of **odder** occur here, of which some are photosynthetic.

Another **hummingbird**, the **broad-tailed hummingbird** was also here at *Cuphaea juliensis*, which also has long red flowers. **Yellow-headed blackbirds** seen around a herd of **cows** behaved as **starlings** do here. Excitingly, some footprints of **bobcat** were seen, perhaps a preferable species for a close encounter than **puma** or **jaguar**. Later in the trip signs of **coyote** were also seen. Falling trees caused a certain amount of delay. Mexico is the epicentre for a genus of epiphytic **cacti**, *Onobia*. Some of the shrubs were **lobelias**, and **dahlias** originated here, one of the wild species which gave rise to our garden dahlias being *D. rosea*. Surprisingly, apart from a **wasp** nest, no problems were encountered with biting insects.

Morelia, the capital of the central Mexican state Michoacán, was a town with Spanish character, with a cathedral built in 1640. Good food was had here. Nearby it was very hot at Patzcuáro Lake with **little blue heron**, **black-necked stilt** and a **garter snake**. It was so hot that even the **cows** went for a swim but it was at least cool at night. One **olive** tree was the oldest in Mexico, olives having been brought here by the Spaniards. Insect life included **dragonflies** and the **tailed orange butterfly**.

Brian then went off in search of the famous migratory **monarch butterfly**, walking through the **pine** and **oak** forest to an altitude of about 8000ft. Birds at the slightly salty Lago Cuitzeo included **ring-billed gulls**, **white-tailed hawk** and **cattle egrets**. **American white pelicans** which are winter migrants were also seen there. One of the woodlands, Mil Cumbres was home to **coralroot orchids** (*Corallorhiza* spp) and the beautiful *C. maculata*. **Agaves** and **epiphytic orchids** were growing on the bare rocky cliffs. A lot of the plants which inhabited the area are ones which members may be familiar with from their gardens. It was interesting to see where they are found in the wild.



Some of these included the **Virginia pokeweed**, *Physalis*, *Nicotiana*, *Eryngium*, *Calceolaria*, *Pinguicula* and *Tagetes* species. In high dry mountain areas are **juniper** and a **fir** - *Abies religiosa* - which was covered with millions of **monarch butterflies**. The **monarchs** had returned from their breeding areas with several generations being hatched between North America, where they lay their eggs on **milkweed** and Mexico where they hibernate on the trees in winter.

At another site, Sierra de Chincua, more **monarchs** were seen, and other Lepidoptera such as the **mourning cloak butterfly** or **camberwell beauty** (*Nymphalis antiopa*) and the **giant swallowtail** (*Papilio cresphontes*), the biggest butterfly in N. America which has a wingspan up to about six inches. The **hummingbirds** in Mexico rivalled moths in size with a **white-eyed hummingbird** and a **bumblebee hummingbird** that looked like a **hawkmoth**.

Brian highlighted some of the downsides of commercialisation in Mexico, including deforestation and a serious problem that exists with disposal of rubbish in some areas. However it is clear that Mexico still has some fantastic areas for wildlife and it was a delightful and colourful introduction to a part of the world unknown to most of us until comparatively recently.

Cathy Caudwell

CROMBIE COUNTRY PARK

27th February

A lovely, sunny, spring-like day gave us ideal conditions for our first walk of the season at Crombie. There had been a few days of light frost so the ground was partly frozen in places, reducing the mud hazard on some stretches of the path. We had a good turn-out of 25 members and friends but the potential for disturbing the wildlife soon diminished as everyone walked at their own pace around the main path and spread out in twos and threes.

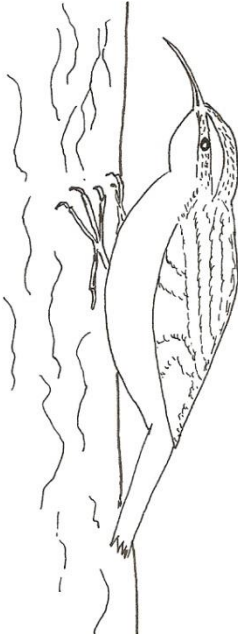
The bird table at the car park was well-visited and gave us our only sightings of **greenfinch**, **house sparrow** and **tree sparrow**. Here also were **chaffinches**, **blue** and **great tits** and three **robins** apparently feeding peacefully quite close to each other.

As we reached the reservoir we could see a few birds on the water beyond the ice cover at the far side. These turned out to be a small party of **goldeneye**, with males displaying competitively to each other, a couple of **coots** and three **cormorants**, one with an unusual whitish neck. Somewhere nearby Lorna saw a **treecreeper**.

The walk through the woodland was very pleasant with **goldcrests** and **coal tits** heard, but rarely seen, high in the tops of the conifers. **Hazel** catkins were just opening though most other plants were still dormant.

The well-vegetated inlet at the west end of the reservoir was mostly frozen but where the burn entered there was a collection of **mallard** with two **teal** hidden amongst them. Three **little grebes** suddenly appeared, simultaneously, from underwater intent on each other and ignoring us. In a field just outside the park boundary Dorothy spotted two **greylag geese** feeding on the short grass.

The small ponds between the Lodge and the car park were all iced-over with no sign of amphibians or spawn of any kind, though Stevie did say that she had sometimes seen **newts** and **diving beetles** swimming beneath similar ice in the past. The sun was still shining when all returned to the cars and took the short journey down the road to lunch at the Craigton Coach Inn at Monikie.



Anne Reid

SUMMER OUTINGS WATER OF LEITH

23rd April

The first outing of the year was in April when about 30 members of the Nats took the coach to follow part of the Water of Leith footpath. The Water of Leith path is about 24 miles long starting in the Pentland hills. The stretch within the city is about 12 miles long and the visitor centre is about halfway along the city section.

We were dropped off at the visitor centre at Slateford and had a look around it before we started. Staffed by knowledgeable volunteers there was a small exhibition about the development of the path and some of the sights along its length. The path route is well marked by brown signposts along its length. We split into two parties, a group for a shortened walk first headed upstream into Craiglockhart Dell. There is a carved slate pillar marking the completion of the walkway and upstream there is a stone grotto, probably built for Dr Alexander Monro Secundus the owner of Craiglockhart house. Behind the grotto is a stream marking the boundary between Craiglockhart and Redhall estates. The rocks are part of the Wardie Shale Carboniferous formation and were quarried. The path can be followed to a second grotto made of many different sorts of coloured rocks. Both grottos were once lined with seashells and some are still visible. Finally the paths led us to Redhall walled garden.

The short walk group then turned back downstream and followed the path past the visitor centre and under two impressive structures - the aqueduct carrying the Union Canal and the viaduct carrying the railway. The walkway follows the river past a graveyard on the right and then allotments

around which both the river and path make a wide loop. The trees lining the banks were just coming into leaf and there was **wild garlic** growing along the path. A number of early warblers were heard on this stretch, including **willow warbler**, **chiffchaff** and **blackcap**. After a couple of miles the path comes into the impressive Saughton Park. The park is famed for its rose garden which was being planted up for the summer season. The short walk finished here and members were then taken by bus to the end of the path at Leith where there was plenty of time for looking at the regeneration of this area of Edinburgh.

The second party made the walk along the path from Slateford to Leith, approximately seven miles. The first part of the path to Saughton Park was mirrored by the second group. Here some stopped for lunch by the conservatories. **Dippers** and a **kingfisher** were seen on this relatively quiet stretch. From the park the rest of the path either follows the river or emerges for some small detours into sections of old Edinburgh. Following the river path signs we crossed a busy road

After Saughton Park there was a short detour as the river flood defences are being strengthened. Back on the path we passed Murrayfield rugby stadium and then on to Roseburn Cliff. The river at this point is much channelled; however there was plenty of waterside vegetation and the bird count rose all the time.

After Roseburn the path once again dropped into a pleasant leafy riverside path, passing under an old viaduct (now crossed by a cycle route rather than trains) and continuing by the river. (Here there are access points for the excellent Scottish Gallery of Modern Art).

Other footpaths branched off from the main path such as one leading to Haymarket Rail Station, but the walkway continued by the river, soon switching to the north bank. Here the river path passes the Dean Gallery. Further on another detour avoids a landslip. The detour passes through Sunbury Mews and on the north side of the river is the impressive red-brick Well Court, built by the owner of the Scotsman newspaper to house his workers. A short rest stop at a local cafe gave members the energy to tackle the last few miles of the walk.

The cobbled Hawthorne Bank Lane led through some picturesque half-timbered cottages to Dean Village. The path continued under the towering arches of Telford's Dean Bridge. Built in 1832 this bridge removed the need for a steep descent and climb on the crossing of the river. Soon St Bernard's Well is reached, capped by a Roman temple-style folly and a statue of Hygeia, Goddess of Health. Once popular, recent tests have shown the water to be unfit for drinking.

Further on, the path emerges onto the Edinburgh streets again with a view of Dean Terrace across the river, an area with some of the finest Georgian streets of Edinburgh. Following through Stockbridge the path again follows the river. A **dipper** was singing valiantly against the traffic noise, under the main road bridge at Stockbridge. The path passes Edinburgh Botanic Gardens and continues towards Canonmills with a view overlooking Stockbridge Colonies. These were houses built by a cooperative to provide low cost homes for craftsmen. At Canonmills the path continues through streets and into Warriston. Here the landscape becomes more industrial with railway yards, weirs and warehouses along the river and the first **house martins** of the season were spotted over the river nearby. A sign that we were approaching Leith were areas of old wharves and a broadening of the water with **swans** and **moorhens** in slow-moving water. Finally the walk finished at the Merchant Navy memorial at Leith (above, right). Some had time for a swift cup of tea before rejoining the bus for the homeward journey.



David Lampard

Note: Bird records were made for four squares on the route and totalled 40 species. All submitted to BTO Birdtrack. Brian Ballinger did the same for vascular plants for the Urban Flora Survey. Ed.

DUDHOPE PARK, DUNDEE

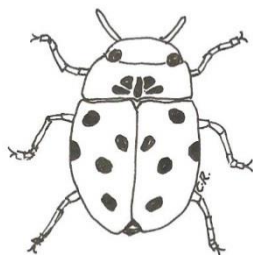
10th May

This was a joint outing between the Dundee Naturalists' Society (DNS) and the Botanical Society of Scotland (BSS) to Dudhope Park near the centre of Dundee. The meeting was intended to contribute to the BSS Urban Flora project and also to survey the wildlife of the park.

DNS member Richard Brinklow, the Curator of the British Lichen Society, led us along a line of trees in the park, demonstrating the nature of the urban lichen flora. Lichens in cities have made a considerable comeback with the improvement of the air quality, although they still are sometimes less vigorous in their growth than rural specimens

We saw a selection of foliose, fruticose and crustose species which are typical of trees in this habitat. 24 species were noted in all, including *Usnea subfloridana*, *Evernia prunastri*, *Parmelia sulcata*, *Hypogymnia physoides* and *Xanthoria parietina*. On the damper northern aspects of some trees, algal *Pleurococcus* species predominated.

Other members of the party, including Brian Ballinger and Jim Cook, diligently noted the vascular plants for the BSS survey. *Veronica filiformis* (**slender speedwell**) was remarkably common in the grassy areas and we were surprised to find a *Ranunculus bulbosus* (**bulbous buttercup**) plant.



Anne Reid and Barry Caudwell set off on a finally-successful hunt for two small **ladybirds** seen earlier in the day, one being a **2-spot** and the other causing identification problems with the invader, **harlequin ladybird**, being suspected. All heaved a sigh of relief when careful examination revealed one of the forms of the native **10-spot ladybird**.

Bird life was consistent with a tidy town park with only ten species being recorded including **woodpigeon** and **herring gull**. The most interesting sightings were of a **great spotted woodpecker** and a female **blackbird** with a beak-full of large **worms** destined for well-grown nestlings.

The weather was fine and warm all evening and this proved to be a very successful outing.

Brian Ballinger

KILLIECRANKIE

14th May

This outing got off to a bad start, with the bus arriving very late due to an office mix-up over timings. Mobile phones helped to sort out the situation, despite some being turned off when it would have been helpful to have made contact. In the circumstances we didn't stop on the way but headed directly to the NTS visitor centre at Killiecrankie, just north of Pitlochry. The leaders heaved a sigh of relief that we were only half an hour later than expected and to help matters it was a lovely sunny morning.

The short walk, led by Brian Ballinger, was to explore the area around the visitor centre and then to walk the short distance to the village. We hoped to see **slow worms** sunning themselves, as had been spotted on the recce, but Saturday morning visitors probably resulted in too much disturbance and they kept well-hidden. However, there was plenty to see without going far. A pair of **nuthatches** had recently taken up residence and were using the feeders which gave all an opportunity to observe the birds at close quarters. They have been slowly moving north but have not yet regularly reached Angus so were not familiar to many. In the woods nearby **wood warblers** were singing along with their more common cousins, **willow warblers**. Wendy and Barry also managed to locate **pie'd flycatchers** not far from the visitor centre. Brian moved slowly making extensive plant lists including **cowslip**, **wood anemone**, **wood sage** and various **ferns**.

Anne led the longer walk which, unfortunately, had to start out along the roadside footpath due to closure of the riverside path after a bridge had been washed away in winter floods. Traffic was light, so this was not too bad and we had the view down and across the river gorge to compensate. Once we got to Garry Bridge we rejoined our original planned route, up some very minor roads to the west of the river. **Grey wagtails** were spotted, far below, from the bridge and at the edges of the

woods several **orange tip butterflies** were seen. Their food plant - **lady's smock** - was in full flower and at its best in many places on our route. **Blackcaps, chiffchaffs, goldcrests** and **robins** were all singing in the mixed **oak** woodland and the leaves were fresh green and not yet fully expanded.

By this time hunger pangs were being felt and many of the group settled down in the sun on the benches in the small churchyard at Tenantry to eat lunch. A **robin** appeared nearby and **chaffinches** were singing in the trees. As we got going again, we paused to look at an uncommon **horsetail**, *Equisetum pratense*, in the roadside bank at the back of the church. The whole route was quiet and eventually brought us out at the river bridge in Killiecrankie village, where we added **house martin** and **swallow** to the list.

We completed the short distance back to the visitor centre to find the local walk group generally relaxing in the sun or watching the activity at the bird feeders. It was agreed that there had been something of interest for everyone and good bird and plant lists were submitted to the relevant recording schemes.

Anne Reid

GAIRLOCH WEEKEND

20th - 23rd May

The long weekend outing to Gairloch had 41 members attending, such was the interest that four members had to stay in a separate hotel.

The trip started on the Friday morning, picking up members between Arbroath and Dundee. We continued to a lunch break at the Highland Folk Museum in Newtonmore, where we stayed for two hours. During the recce for the trip we had spotted a **red squirrel** in the pinewoods there. This is also part of the Newtonmore Wildcat Trail, with a number of decorated **wildcat** models dotted around. There was plenty of time for members to have lunch and look round the museum. There were walks around the estate, through **pine** woodland and down to the River Spey. Most interesting was a living history exhibit of a 1700s village of traditional black houses. We spotted many birds and plants in the woodland and along the river, including a newly-fledged family of **long-tailed tits** sitting in a row on a branch above us.



We arrived in at the Bay Hotel in Gairloch around 5pm. It was the first weekend of the summer that the hotel was open and our party were the first guests of the season.

We spent Saturday at Inverewe gardens, Poolewe. The garden is managed by the National Trust for Scotland. In very heavy rain (but no wind), we split into two groups for guided tours in the morning. The guides explained how the gardens were designed and built, starting from bare rock and a few scrub **willows** in 1862 by Osgood Mackenzie. Due to the influence of the Gulf Stream and careful planting of shelterbelt trees the gardens can now support colourful, exotic plants from around the world, which would not usually survive the Scottish climate. Highlights of the tour include the most northerly planting of rare **Wollemi pines**, **Himalayan blue poppies**, **olearia** from New Zealand, Tasmanian **eucalyptus**, and a wide range of **rhododendrons** from China, Nepal and India.

The garden has suffered from the fungus *Phytophthora*, which is attacking **rhododendrons** in particular, and because of this the gardens are unable to sell or move plants. Biosecurity measures are in place with visitors being asked to use disinfected mats to wipe their feet. Amongst the sights to see was a long-established **heronry**, with the chicks still in the nest.

In the afternoon the rain cleared and we split into a number of smaller groups to take advantage of the marked nature trails. Some members stayed in the gardens to complete tours on their own. There are plenty of natural features in the gardens with lookout points over Loch Ewe with a chance of seeing **otters** and **seals**. A bird hide on the shore gave great views over a salt marsh and the bay, where numerous waders were seen, including **oystercatchers**, **common sandpipers** and a **greenshank** and also **great northern divers** and **mergansers** out on the water.

For the more able and adventurous members there were three marked trails to follow. The NTS are managing the wider estate for conservation. Encompassing 2,000 acres it is home to many

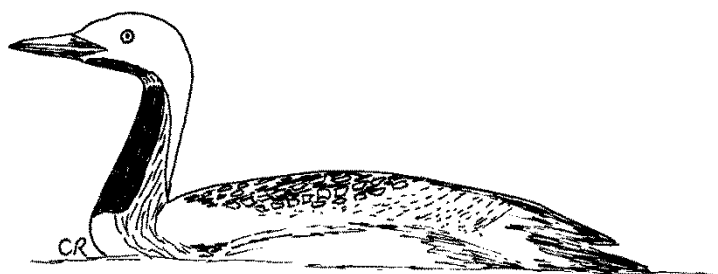
rare native species of mammals and birds, including **crossbill**, **pine marten** and **red squirrel**. There is a short walk, the Inverewe Trail, around the woodland and a medium length walk, the Pinewood Trail. This latter trail, linked to the Kernsary circular path. While only a few members followed this path for a view of Loch Kernsary, they were rewarded by the sight of a **white-tailed sea eagle** soaring high overhead. Several **cuckoos** were heard and seen at the edge of the moorland on this route.

On Sunday we set off for a change of scenery. In the morning we were dropped off at Slattadale Forest on the shores of Loch Maree. We split into two parties depending on abilities. The first party followed the shore footpath along Loch Maree and then retraced their steps to the main road, along which, 400 yards to the east, was the well-known beauty spot at Victoria Falls. We noticed that all along this part of the West Highlands many hydro-electric schemes are being constructed.

Across Loch Maree were the imposing mountains of Beinn Airigh Charr and Slioch. To the south was Beinn Eighe. These hills are made of **Torridonian sandstone** over 1,000 million years old and are among the oldest landscapes in Britain. The Torridonian rocks actually sit on **Lewisian gneiss** which is even older, about 3 billion years old. There are outcrops of it at Gairloch and Loch Maree.

The medium walk first followed the Tollie path (which is a footpath to Inverewe), through the woodland and along the shore of Loch Maree. However after about half a mile we branched off to follow the River Slattadale up to the left. The group followed the river upstream through forestry plantations; however, part of this area has also been felled which has opened out the countryside. We followed this path and crossed the main A832. Following the forestry track through mature plantings we had excellent views across Loch Maree. After a couple of miles this path led us to the Victoria Falls where the whole party met up for lunch. The falls were particularly impressive with some well-sited viewing platforms.

Wendy, Liz and Anne walked even further along the shore of Loch Maree and got good views of **black-throated divers**, a **tree pipit** and a **pieb flycatcher** before returning to the path taken up the River Slattadale by everyone else (and having to hurry to meet the departure time, which was made with five minutes to spare). Loch Maree is a specially protected area for its population of **black-throated diver**. It also contains **salmon**, **sea trout** and two races of **arctic charr**. In the forestry areas we saw a **dor beetle** and several **green tiger beetles**.



Black-throated diver

After lunch the bus took us to the harbour car park at Charlestown, Gairloch, for walks in Flowerdale estate and around Gairloch harbour. Although the estate is privately owned there are a number of well-marked trails and paths. Again we split into smaller groups with some taking in a shorter, circular walk around the arboretum of about a mile and a half. During this walk on the recce we saw a **slow worm** and flying **dor** and **click beetles**.

For the more adventurous there was a longer walk along the glen to a waterfall. The path passes through the lower grounds of the estate before heading upwards on a wide estate road to the waterfalls. The best view was across a wooden bridge built at the bottom of the falls. A few members carried on along a rougher steeper path alongside the falls. Once above the falls there were hopes of seeing a **golden eagle**, but unfortunately it remained hidden though we did see **grey wagtail** and **redpolls**. Above the falls a bridge led to a path on the other side of the river allowing us to complete a circular walk back to the harbour. Finally there was a footpath from the harbour along the cliffs to a beachside path back to the hotel which had swathes of **bluebells** at their best.

The party left Gairloch on Monday morning to stop at the Beinn Eighe Visitor Centre on the way home. At the centre we were given an introductory talk and guided walk by a Scottish Natural Heritage ranger. Beinn Eighe was one of the first National Nature Reserves in Scotland. After the guided walk there was time to follow the trails with the bus taking many members to Kinlochewe for lunch. A few members followed the marked path and walked to Kinlochewe.

After lunch we headed home. Our initial idea was to drive via Braemar, but this proved impossible because of the narrow roads and bridges. Instead the bus followed the road to Elgin and

across to Aberdeen, stopping for tea at Baxter's visitor centre at Fochabers before continuing. This detour made us a couple of hours late getting back to Dundee around 7pm.

David Lampard

Note: 67 species of birds were recorded from 14 different locations over the course of the weekend and duly entered onto the BTO Birdtrack recording scheme. Ed.

CARROT HILL

31st May

This was to be an evening walk at a site not recently visited by the Nats. We were hoping to record some moths in a very under-recorded square and also to take in the wonderful views in all directions from the hill tops.

We didn't get off to a smooth start as the very prominent stand of conifers, just to the south of the car park, had been clear-felled since I had indicated that it should be used as a landmark to look for when finding the correct meeting point. Luckily someone had driven past and noticed, so at least some participants knew of the change.

Though the main outing was timed for 7pm we had decided to start at 3pm for a supplementary walk with the possibility of seeing more flying insects and birds before they reduced their activity in the evening. On a lovely sunny afternoon Anne, Barry and Cathy duly turned up, ready to lead, with insect nets to the fore. They were joined by a select group, including Liz and Alban, for the early session and all had a preliminary walk along the edge of the former forestry and on to the heathery moorland beyond, as far as Dodd Hill. A number of **common heath moths** were seen flying over the heather and **skylark** and **meadow pipit** were noted. Further on we managed to catch specimens of **narrow-winged** and **grey pug moths** and also found some **red twin spot carpet moths** which taxed our identification skills due to their variability. **Willow warblers** and **whitethroat** were singing in several places and a **kestrel** was seen nearby.

On return to the car park to retrieve the main group we had enough time to refuel with sandwiches before setting out once again. The group was much larger this time, as expected, and the bird list was much the same as before. The extra pairs of eyes managed to spot both **wheatears** (right) and **meadow pipits** busily feeding young, and someone heard distant **red grouse**. Extra specimens of the same moths were seen but no additional species were found, but a **painted lady butterfly** was recorded near the path. Despite being a lovely evening the temperature was beginning to drop by the time we reached Dodd Hill for the second time and a cool breeze meant that we did not linger there for long though all agreed that the all-around views were well worth the effort.



Anne Reid

BARRY BUDDON

5th June

The usual five local groups gathered together, along with members of the public, for the annual Open Nature day with a good attendance of 53 meeting to enjoy another visit to Barry Buddon.

With the weather being kind to us we enjoyed what was, in my opinion, the best all round visit to date with the following highlights being recorded. The birdwatchers scored with a grand total of 70 different species which featured a passing **osprey** and a migrating **cuckoo** and a very unusual day-flying **long-eared owl**. Lepidoptera enthusiasts were thrilled to record the rare **small blue butterfly** and **green hairstreak** plus **dark green fritillary** and **small copper**.



The Botanists too excelled with sightings of **giant water-dock**, **gypsywort**, **grass of Parnassus**, **ragged robin**, **twayblade**, **adder's tongue fern** and abundant **northern marsh orchid**. The overnight moth trapping excelled with a record total of 53 different species which included the showy **elephant hawk moth** (left) and the rare **Mother Shipton moth**. All in all it was generally agreed that it had been an outstanding day for all present and thanks were extended to the Camp Commandant and his staff for their helpful cooperation on what turned out to be a day to remember.

Bob McCurley

FALLS OF CLYDE AND NEW LANARK

11th June

The scenic Falls of Clyde is situated within the Clyde Valley Woodlands National Nature Reserve. The river walks are all accessed via historic New Lanark, a beautifully restored 18th century former cotton-spinning mill village, now recognised as one of Scotland's six UNESCO World Heritage Sites.

On arrival, we walked down the hill to the New Lanark Visitors' Centre. The late spring had delayed the flowering of massed **foxgloves**, remembered from a previous visit, but this was compensated for by the late flowering of several spring species, including **bluebells** and **pink** (and **white**) **purslane**. Time was allowed for Nats to walk around the village and enjoy the various excellent interpretive displays, and make use of the picnic tables to eat packed lunches.

The well-maintained and signed river walks began with the Clyde Walkway. The extensive boardwalks, with built in river viewing points, enabled good sightings of **mallards** and other waterfowl. The photographers got good photos of a nesting pair of **grey wagtails**. There was no sign of the **heron**, observed on the recce below the weir, waiting to pounce on any fish swimming over the falls, but sightings were reported elsewhere on the riverbanks. Also spotted on the grassy verge beside the small hydro power plant, were two **orchid** species; **greater twayblade**, *Neottia (Listera) ovata* and **common spotted**, *Dactylorhiza fuchsii*. Further along the track towards the waterfalls a small, lonely spike of **northern marsh orchid**, *Dactylorhiza purpurella*, was also found.

It was sad that the pair of nesting **peregrines** had failed to return this year or, indeed, last year. One of the rangers told us that one of the pair had most likely died.

As a final treat the coach driver took a different route homewards.

Jenny Allan

SHIELL STREET, BROUGHTY FERRY

14th June

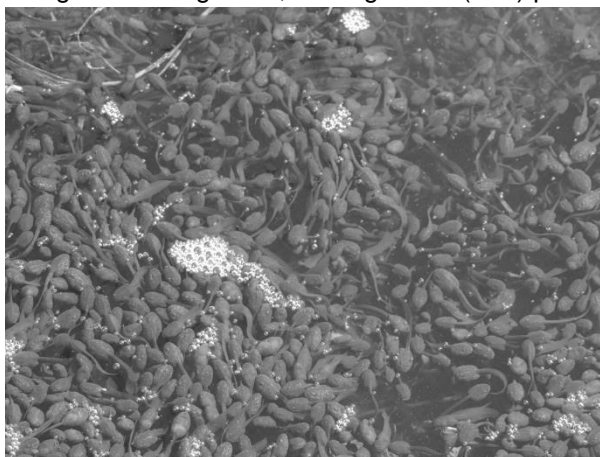
This was a joint meeting of the Dundee Naturalists' Society and the Botanical Society of Scotland (BSS), and was part of the BSS Urban Flora of Scotland project but we also set out to look for other urban wildlife.

Ten dedicated members gathered on the front at Broughty Ferry on a very damp evening. Wellies and waterproof notebooks were the order of the day. We walked slowly through the Shiell Street local reserve from west to east. The trees echoed with birdsong and there were also noisy interruptions from the adjacent railway line.

The flowers were at their best and there was a good display of **meadow saxifrage** (*Saxifraga granulata*). The dune origin of the grassland here was demonstrated by the presence of **sand sedge** (*Carex arenaria*), and **restharrow** (*Ononis repens*) was also present. The small pond was full of **tadpoles** which were still rather small given the time of year and very densely packed (see photo below). At the east end of the reserve we walked through the rock garden, looking at the (wild) plants that were invading the nearby railway line.

Further on we entered another tetrad (2x2km square for recording purposes) and proceeded down to the shore. Plants here included **fiddleneck** (*Amsinckia micrantha*), although the recent shore defences have not helped biodiversity at the present time.

In all we made 95 botanical records. Meantime other members of the group had noted a rather surprising 20 bird species (considering the weather) including singing **blackcap**, **chiffchaff** and **song thrush** and a number of noisy, juvenile **great tits**. Out towards the shore we also saw a **pieb wagtail** and a pair of **linnets**.



Given the weather no butterflies were seen but several **silver-ground carpet moths** were present. The **raspberry** (*Rubus idaeus*) flowers also proved irresistible to a surprising number of **bumblebees** with mostly **common carder** at one patch and some **white-tailed** workers elsewhere.

Brian Ballinger

ST CYRUS

25th June

A very full bus braved the bad weather to visit the St Cyrus national nature reserve - an area of inland cliffs and a ridge of sand dunes that protect the St Cyrus grasslands. We were welcomed by the warden and some chose to shelter from the weather in the visitor centre to look at the information about the formation of the area including the dramatic change of the course of the North Esk after a storm in 1879.

Most people chose to walk along the edge of the dry river bank and noted the smooth rocks that were once part of the river bank. **Lizards** have often been spotted on these rocks, but due to the weather were not in evidence. Along the route **reed buntings** were seen in the **reeds** as well as a number of small birds including **blue tits**, **great tits** and **blackbirds**.

A stop along the route meant people were able to view the cliffs with nesting **fulmars** and some were also able to spot the nests of **buzzard** and **peregrine**. Many flowers were noted including **bloody cranesbill** and **clustered bellflower** and its uncommon white variant.

We huddled from the rain in one of the old salmon fishing stations for lunch and noted some older **swallow** nests, as well as **swallows** flying around the area.

Some people chose to visit the new hide located beyond the visitor centre (to the south) and were rewarded with a **heron**, **mallards** and several **dog walkers**. The day finished in watery sunshine and everyone in good spirits despite the poor weather.

Lorna Ward

NEWTYLE RAILWAY PATHS

5th July

This Tuesday outing was by cars meeting at the railway car park in Newtyle. About 12 members arrived at the start on a warm July evening. The route took us north along the railway line path. The original railway connected Dundee to Newtyle, and this part of the line was part of an expansion to Coupar Angus and Forfar. The edge of the path was lined with trees that have grown up since the line was closed. We passed the remains of a turntable used for moving engines and

carriages and continued north. The line became an embankment with good views over the surrounding countryside. Amongst many birds seen were **yellowhammer** and a field full of **jackdaws**, **crows** and **rooks**. There were also a couple of **oystercatchers** here and a **mistle thrush**.

A little further on there was the remains of a station. Here Richard was looking for lime-loving **cowslips**, which had been seen here in the past, but none were found. In this area limestone clinker had been used as the track bed.

The path curves to the left through Newbigging wood and broadleaf woodland to the east, (there is a branch off path here to the east towards Kirkinch and Meigle). However we followed the main path across the road to the west and continued until the Newbigging road. The edges of the path here had singing **whitethroat** and **blackcap** and **swallows**, **house martins** and **swifts** were seen overhead. At this point some members followed the road to Newbigging and then paths which brought them to a loop of the railway line to the west of Newtyle and back to the car park.

The rest of the group followed the road back to the Newtyle to Meigle road to rejoin the original railway path and then retraced our steps back to the car. On the way back a **hare** was seen in the fields to the east.

David Lampard

CORRIE FEE

9th July

The bus for our trip was a fairly small one and was conveniently able to get over the bridge and park up for the day in the car park next to the Ranger Base. It has to be said, we did not get the best of weather for this trip, it being humid, cool and dreich with the low cloud-base denying us a view of Dreish or Mayar, or any high crags at all, for the whole day. The temperature recorded at the nearest weather station (Cairnwell in Glenshee) was 8.8°C with humidity of 92.1 %. Perversely it did dry off and brighten a bit just before we got back to the bus for a somewhat earlier departure than we might have had on a better day! There was only the slightest of breeze at times which helped to keep the **midges** at bay, but they were still a bit of a nuisance when we stopped for lunch on the top of a **drumlin** half way up the Corrie.

The main party followed the wide track from the car park and visitor centre along the north side of the burn. After climbing up through the forest the track narrows and crosses a stone flag bridge and then opens out into the Corrie. The view was nevertheless spectacular as we could see from the high corrie entrance as far as the waterfall. Above that the cloud base hung at the level of the cliff tops. We followed alongside the Fee Burn to the bottom of the waterfall, the more intrepid or energetic continued higher up to the waterfall itself to hunt for some of the specialist montane flora. A smaller party consisting of David Lampard, Barry Caudwell and Richard Brinklow had headed off across the moor to look at adjacent Corrie Sharroch.

Flora



Those who went up the path as far as the waterfall saw the **roseroot**, *Sedum rosea*, and more distantly a **willow** species, probably *S. lapponum*, hanging down from the cliffs in precipitous fashion as well as clumps of **globe flower**, *Trollius europaeus*, high above the south side of the path. Growing beside the rocky path were profuse quantities of **alpine lady's mantle**, *Alchemilla alpina*, **purple saxifrage**, *Saxifraga oppositifolia*, (no longer in flower), **Scottish bluebell**, *Campanula rotundifolia*, and **wild thyme**, *Thymus polytrichus*. **Butterwort**, *Pinguicula vulgaris* (left), **yellow saxifrage**, *Saxifraga aizoides*, **marsh marigold**, *Caltha palustris*, and **lesser spearwort**, *Ranunculus flammula*, were growing in the Fee Burn along the Corrie. Numerous **heath spotted orchids**,

Dactylorhiza maculata, formed a great show in the wet boggy areas along with some flowering **alpine bistort**, *Persicaria vivipara*, and **bog asphodel**, *Narthecium ossifragum*, in the floor of the Corrie. **Lemon scented fern**, **wood horsetail** and **stagshorn clubmoss** were also there. Jim pointed out that the site of the rarity *Alchemilla conjuncta*, which grows alongside the burn not far past Acharn, had been planted up with young trees, which would lead to it being shaded out. This fact was pointed out to the Ranger on our return to the visitor centre.

Lepidoptera

The **common carpet**, *Epirrhoe alternata*, was netted in Glendoll forest, **ringleet butterflies** were flying during the afternoon near Glendoll Lodge (despite the weather) and the **chimney sweeper moth**, *Odezia atrata*, was also seen beside the car park and Ranger centre.

Birds

There were numbers of **house martins** feeding around the Corrie and a particularly impressive sight was to see them wheeling down the deep gully of the Fee Burn beside the waterfall. **Grey wagtails** were also feeding there amongst the spray.

List of birds seen:

Oystercatcher (1), **common gull** (1), **jay** (1), **blue tit**, **great tit** (1), **coal tit**, **sand martin** (3), **swallow**, **house martin** (33), **blackbird** (1), **song thrush** (1), **spotted flycatcher** (2), **robin** (1), **grey wagtail** (1), **pie wagtail** (*yarrellii*) (1), **chaffinch** (5), **siskin** (1), **goldcrest**, **wren**, **meadow pipit**.

Ring ouzel was seen by the Corrie Sharroch party while **raven** and **golden eagle** and/or **peregrine** were heard from Corrie Fee.



Our attempt to stop off for a quick refreshment at the Glen Clova Hotel on the way back was foiled by a fire at the hostelry so our return to base was without sustenance excepting what remains we could find in our lunch boxes and thermos flasks.

Thanks to Kati Smith for compiling a plant list and Anne Reid for the bird records. Moth records were submitted to David as the county moth recorder. Butterflies to the Butterfly recorder, Glyn Edwards.

Barry and Cathy Caudwell

[Barry and I made a return to the Corrie later, on 13th August, for a moth trapping trip when the weather was perfect (also for **midges**) and we had the pleasure of seeing - through our midge veils - the sun rise and light up the walls of the Corrie with shafts of rosy light. We took the opportunity the following morning of checking out a former **northern brown argus** site on the Scorrie path by Braedownie. We were able to confirm the presence of the butterfly's food plant, **rockrose** *Helianthemum nummularium* and a possible hatched butterfly egg was seen there.]

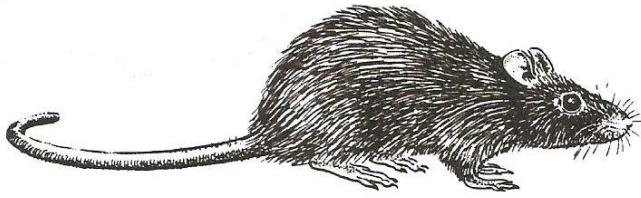
DUNDEE HOWFF

19th July

Members of the Dundee Naturalists' Society had been invited by Friends of the Howff to look at the wildlife of the ancient graveyard in the centre of Dundee. We met in warm sunshine at the gate, which the Friends unlocked for this evening visit.

Unfortunately "weedkiller man" had got there before us, causing considerable destruction of the vegetation in the north-western corner. However, annuals were making a valiant effort to recover and the site was remarkable for the abundance of *Epilobium ciliatum* (**American willowherb**) and there was another willowherb species that caused some debate, keying out as *Epilobium obscurum* (**short-fruited willowherb**). The old walls grew typical ferns such as *Asplenium trichomanes* (**maidenhair spleenwort**) and *Asplenium ruta-muraria* (**wall rue**) as well as *Mycelis muralis* (**wall lettuce**) and *Buddleja davidii*.

At the south end there were the attractive flowering **stonecrops** *Sedum acre* (**biting stonecrop**) and *Sedum album* (**white stonecrop**). A surprise find was a patch of *Galium odoratum* (**woodruff**). 44 vascular plant species were seen in all.



A common, but rarely seen, animal was a **brown rat**, spotted at the edge of an adjacent building. Small black **ants** were present and some unidentified **micro-moths** flitted around. **Herring gull**, **oystercatcher**, **blackbird**, **blue tit** and **woodpigeon** were noted.

The plant records will make a useful contribution to the Botanical Society of Scotland's urban flora project, in conjunction with records from our previous visit devoted to mosses and liverworts. The Friends were thanked for arranging the visit.

Brian Ballinger

GLEN DEVON TO DOLLAR

23rd July

On a lovely sunny Saturday in July, we set off on the bus to Glen Devon for our walk through the hills to Dollar. We stopped for coffee on the way at Broxden Service area and then drove on to Castlehill Reservoir, where the bus dropped us off for the walk. Armed with the Glen Devon Woodlands map supplied by Woodland Trust Scotland, we set off on our nature quest, starting with a careful examination of flora in the lay-by beside the reservoir.

The group doing the shorter walk were led by Margaret Bainbridge. This was the Castlehill lower loop, marked in red on the map. The whole group started on this walk as there was much to see along the way. The group going through to Dollar were led by Kati Smith, who had marked it in blue on the map and also given written directions with a flower list of what might be seen along the way.

The bus waited at the lay-by at Castlehill Reservoir for the group doing the shorter walk and drove them round to Dollar, where they enjoyed the shops and cafes and river walks. Some ventured up to Castle Campbell where they visited the castle and enjoyed tremendous views. They then descended through Dollar Glen which was a bit slippery after all the rain there had been.

After time spent on the Castlehill lower loop, the group doing the through walk, rejoined the tarmac road to go up the Glen and to cross the river and follow the rougher path alongside Glenquey Reservoir. Lovely summer flowers lined the track, which was muddy in parts, with little puddles filled with **skaters** and even some late **tadpoles**. After the Reservoir, there was woodland on one side and open hills on the other and more flowers, though a favourite, the **grass of Parnassus**, was not yet flowering. Many in the leading group paid a visit to Castle Campbell, descending through Dollar Glen to the village. Others, including the leader, spent longer looking at plants and getting some short lessons on species recognition. Those with the keenest eyes and ears identified many bird species, and others enjoyed the insect life, especially butterflies. We all enjoyed a picnic at various spots along the route, in the lovely sunshine.

We all rejoined the bus in Dollar, some of us a little later than others, but the driver got us home in good time. He was taking a tour group to the Hebrides the next day and was keen to get back early.

Many beautiful flowers and plants of all kinds were seen and recorded, as well as butterflies and birds. Thanks to Cathy Caudwell for the moth and butterfly list and Liz Olejnik for the bird list. Unfortunately, due to lack of space, it is not possible to include Brian Ballinger's full plant list. (It can be supplied to anyone who wishes it. Ed.)

Kati Smith and Margaret Bainbridge

Birds

Blackcap
Blue tit
Bullfinch
Buzzard
Crow
Chaffinch

Chiffchaff
Coal tit
Collared dove
Curlew
Dipper
Goldcrest
Goldfinch

Great tit
Grey wagtail
Heron
Jackdaw
Kestrel
Lapwing
Lesser black-backed gull

Lesser redpoll
Magpie
Meadow pipit
Reed bunting
Robin
Siskin
Song thrush
Sparrowhawk
Stonechat

Swallow
Swift
Whinchat
Whitethroat
Willow warbler
Woodpigeon
Wren

Butterflies
Ringlet
Small Pearl-bordered fritillary
Green-veined white

Moths
Large yellow underwing
Silver-ground carpet
Chimney sweeper

BURN O'VAT AND MUIR OF DINNET NNR

6th August

The bus followed the A92 to Stonehaven and along the Slug Road through Banchory towards Ballater. We were slightly slowed down by the Aboyne highland games which were just getting under way. We arrived at the Muir of Dinnet visitor centre and alighted around 11.00am. The first thing seen was a **swallow's** nest above the door of the visitor centre with at least three well-grown youngsters almost ready to fledge.

The group followed the path to the Burn o'Vat. Following the path up along the Vat Burn we came to a narrow passage through an opening in a rock wall which lead us into the Vat itself. The Vat is a huge natural pothole worn away during the ice age when a river coming from a melting glacier came through the valley about 14,000 years ago. This river was a lot more powerful than the current stream, an obstruction in the river caused a massive eddy with rocks swirling around. Over time The Vat was eroded out and is known as a traditional hiding place of the McGregors. Once inside we found ourselves in a bowl about 18m in diameter with vertical sides polished by the erosion during the ice age. The floor of The Vat is covered in fine gravel of unknown depth, but at least 5m. Jim and Alban headed up the waterfall at the back of The Vat, to look for the rare **serrated wintergreen**, which they found in bud.

After seeing The Vat the group returned to the visitor centre for lunch and another look at the **swallow's** nest. During lunch we spotted **Scotch argus butterflies** and one of the rarest British beetles, the **bee beetle**, thanks to Cathy Caudwell who found it sitting on a **thistle** flower. It was much photographed and Stevie Smith's photograph is shown on page 24.

After lunch the group split up to look around the marked trails of the Dinnet National Nature Reserve. The reserve trails are centred around Loch Kinord, one of the two lochs at Dinnet which are both kettle holes formed by pieces of glacier stranded at the end of the ice age. The trails meander through the range of habitats on the reserve, **aspen**, **pine** and **broadleaf woodland**, to **raised bogs** and high level **heath** containing **bearberry**.

Many members completed the trail around Loch Kinord, while some took in a walk to the loch side through Parkin's Moss, a raised bog. The weather was pleasantly warm and not too sunny, although there was a slight rain shower in the afternoon. Members were soon looking out for the specialist plants to be found at the reserve, including **petty whin**. Along the path was **cowberry**. The reserve also has evidence of early human occupation, including iron age hut circles, a crannog and a Pictish cross.

Several **small tortoiseshell butterflies** were seen on the Loch Kinord path and a single **speckled wood** near the loch's east end. On Parkin's Moss **black darter dragonflies** were seen along with **mayflies** and **stoneflies**. Jackie McKay found and photographed a **common lizard** (above).

The rain arrived, as forecast, at 4pm just as we all reassembled for the journey home after a very satisfying and interesting day.

David Lampard



PHOTOGRAPHS



Speckled wood butterfly, Glasdrum NNR, (left) and ptarmigan on eggs, Ben Sgulaire (below), May 2016. Photos Alban Houghton. (See article on page 44)



Bee beetle (*Trichius fasciatus*) found at Burn o'Vat, Deeside by Cathy Caudwell, 6th August. (See article on page 23) Photo Stevie Smith.





Pied flycatcher (above) and wood warbler (right) on the Killiecrankie outing on 14th May. Both photos by Barry Farquharson (See article on page 14)



Tree paeony at Inverewe Garden on the Gairloch weekend, indicating just how wet the morning of our visit was. Photo Anne Reid. (See article on page 15)

SUMMER OUTINGS (CONTINUED)

QUARRY BARBECUE AND 30TH ANNIVERSARY CELEBRATION

20th August

The 30th anniversary celebration barbecue attracted a stream of visitors from the free bus provided while some arrived in their own transport. A number of others, however, had tendered their apologies and regretted that they would be unable to join us. On the day, fortunately, the weather held as more than 20 members gathered around the new picnic tables to feast on the provisions and visit the quarry. Quarry veterans including Alastair and Ina Fraser, Brian and Jenny Allan, Dorothy Fyffe, Davie Stein and Ken, Ewan and Moira McGregor greeted each other and, as several hadn't been there for years, marvelled at the transformation of the quarry. Meanwhile, Anne Reid and David Lampard had already lit the charcoal, which was heating up nicely. Jenny and Brian were more than generous, as usual, with their hot mulled wine, which provided a great start to an exploration of the quarry.

Jim led a party to show off the hide and its wildlife and turf walls and the uncompleted wicker fence, the paths and the work done throughout the area. Mike Sedakat and Jackie McKay, in particular, were able to admire their recent handiwork. Back at the feast, Ronnie Young and Jim both recounted the great changes to a formerly bare and barren quarry area by the efforts over the years of a large numbers of Society members, friends and other visitors (well over 170, at the last count). They paid generous tribute to those who were no longer with us and to the many unable to visit as well as to those still active, including the newer and younger members who'd recently joined in. What the Society had gained was a considerable degree of experience in countryside management tasks, in tree planting, in plant introductions and activities designed to encourage wildlife, as well as at skills such as fencing, digging ditches, path improvements and so on. The Society also had gained a very quiet, peaceful and pleasant place to visit and explore its varied wildlife and, just this year, a great site for a picnic! Everyone there greatly enjoyed the occasion and agreed that it was a fitting way of celebrating the end of most of the heavy and difficult work needed in the quarry.

Jim Cook

TROTTICK PONDS

23rd August

The last Tuesday outing of the season was to the ever popular Trottick Ponds Nature Reserve in search of **bats**. Nine members turned up for the 8pm start, which was about an hour

before sunset. Parking at Old Claverhouse road the first thing we noticed was the old pub, which had been derelict for many years, had been converted into residential housing.

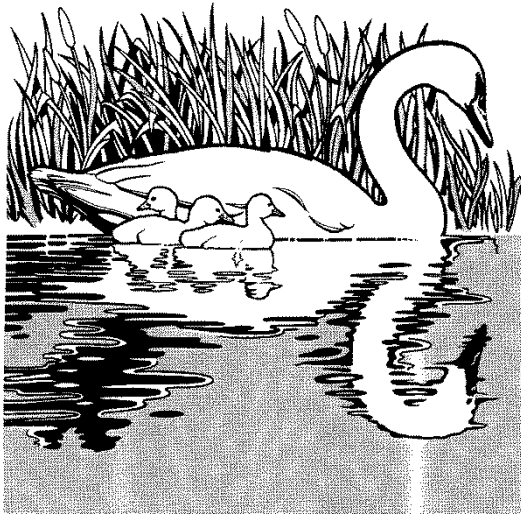
The footpath leading across the Dighty showed some erosion due to the high rainfall earlier in the year and part of the bank of the river had also been eroded.

While it was still light we walked around the ponds and along the green circular along the Dighty Burn. One of the first sights was the **swans** that have regularly nested on the ponds for a number of years, with their three well-grown **cygnets**. As we followed the path it was obvious that there is still a problem with invasive non-native species, with **Himalayan balsam** and **giant hogweed** both in evidence.

As dusk drew in we made our way back along the path and detected **pipistrelles** first along the green circular path and then both along the Dighty and over

the ponds. **Pipistrelles** are using the Dighty as a flyway to get to their roosts and the ponds are a popular feeding locality. More **pipistrelles** were detected as we finally left around 10pm; however it was still too early for the **Daubentons bats** also known to feed here.

David Lampard



To increase the diversity of the recording for the evening, Anne arrived at 7.00pm to lead a bird walk for those interested. Two **dippers** were seen near the entrance bridge and **grey wagtail** and **kingfisher** were spotted (briefly!). There were the usual **mallard** and **moorhens** on the ponds in addition to the **swans** and **blackbird**, **song thrush**, **robin**, **great tit** and **blue tit** were still active along with a single **reed bunting**.

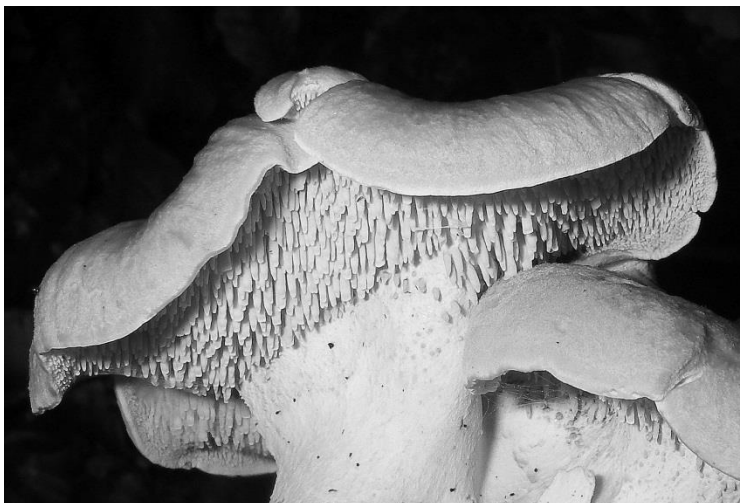
EDZELL WOODS - FUNGAL FORAY

10th September

After checking with the Education Centre (The Burn), we were all set for our foray, after giving assurances that we would not be "stripping" the woods of fungi, but collecting samples for identification. After a very long dry spell, the weather broke a couple of days prior, with torrential rain and a very soggy recce when the fungi hadn't had time to respond. However, by the day, the conditions had certainly made a difference and expectations were high.

The weather on the day was mostly fine and a good turnout of enthusiastic members travelled on the bus and enjoyed refreshments en route at Stracathro Services. Arriving at the woodland and after giving the health and safety talk on the bus, having identified risks of slippery conditions and the steep, sheer drops down to the river, I was somewhat bemused to find myself lying on my back, outside the blue door having already slipped on wet leaves. It certainly made me pay more attention when negotiating the path.

The group seemed to split swiftly into those who raced ahead, spotting and collecting interesting specimens along the main trail, and those who lingered more slowly, searching out equally interesting specimens more off the beaten track. As is my habit, I found myself with the slow moving group, sharing finds spotted by eagle-eyed Richard Brinklow, such as **hare's ear**, *Otidea onotica*, **hedgehog fungus**, and a large spread of **elfin saddle**, *Helvella lacunosa*, in discarded mulch. On the recce, I'd found a rare specimen of **pink disco**, *Aleurodiscus wakefieldii*, which I thought prudent to pose in a discrete spot to share with the group on the day. I previously found this at Lady Mary's Walk, Crieff and was delighted to spot it in this other location. Liz Holden, mycologist, was duly informed of the record and a small sample was dispatched for confirmation.



Hedgehog fungus, Edzell Photo Stevie Smith

Continuing along the path, we met some of the other group, already on their way back. Most interesting finds from them were several **beefsteak brackets**, *Fistulina hepatica*, in pristine condition. These were so high on the host tree, **oak**, that it was impossible to obtain a specimen for examination, but photos were achieved with some difficulty. Gordon Maxwell had collected a white *Amanita*, the scarily fatal-if-eaten, **destroying angel** *Amanita virosa*, characterised by its free gills, off-centre cap and partial veil and the presence of a volva at the base of the stipe. Closely related to the **death cap**, needless to say, this one attracted a lot of attention. Altogether a very enjoyable day out with many of the more common and colourful fungi fruiting and in lovely condition.

Stevie Smith

A second, complementary, account from joint leader Jim Cook.

The keen group was led through the Burn Woodlands strung along the northern bank of the River North Esk, just north of Edzell. Our leader, Stevie, was delighted to show us her recent find of the rare **pink disco**, *Aleurodiscus wakefieldiae*, on fallen branches under the beech trees near the entrance. Gordon Maxwell and Richard Brinklow soon found a good clump of **elfin saddles**, *Helvella*

lacunosa, and nearby were several small tufts of **hare's-ear fungi**, *Otidea onotica*. There was a good variety of species to see, including several **brittlelegills**, the **ochre** species, *Russula ochroleuca*, and the **beechwood sickener**, *Russula nobilis*, numbers of **beech** or **slimy milkcaps**, *Lactarius blennius*, a few **bonnets**, *Mycena* species, and several **toughshanks**, *Collybia* species. David Lampard found a couple of caps of **charcoal burner**, *Russula cyanoxantha*, and then Gordon brought in a specimen of the **false death-cap**, *Amanita citrina*, which smells, perhaps surprisingly, of raw potatoes. There were more, scattered along the top of the bank down to the river. Other interesting finds included a specimen of **destroying angel**, *Amanita virosa*, again located by Gordon, the iconic **fly agaric**, *Amanita muscaria*, with its bright red cap spotted with white, **trumpet chanterelles**, *Cantharellus tubaeformis*, and numbers of **dappled webcaps**, *Cortinarius bolaris*, along with a few **pearly webcaps**, *Cortinarius albviolaceus*.



Destroying angel fungus, Edzell
Photo Stevie Smith

Several members reported a number of good brackets of **beefsteak fungus**, *Fistulina hepatica*, on live oak trees beside the path along the river. A group of us admired and photographed them from all angles and then stretched right up to remove a small specimen. It did bleed a little of the watery red fluid which prompts its common name and the cut surface looked remarkably like raw liver. (It didn't taste anything like liver, though, after gentle frying with a little onion!) Near there, on a bank, were clumps of small caps of **hedgehog fungi**, *Hydnum repandum* var. *rufescens*, and further along a few **chanterelles**, *Cantharellus cibarius*.

Richard Brinklow reported finding several small tufts of the highly unusual **snaketongue truffleclub**, *Cordyceps ophioglossoides*, which grows on buried small (inedible) **truffle** fungi. Nearby was a small clump of the handsome **plums and custard**, *Tricholomopsis rutilans*, and a little further on was a single specimen of **stinkhorn**, *Phallus impudicus*. This was

on the other side of the small stream re-entrant marking the line of the Highland Boundary Fault, which gave rise to a very different habitat of conifer plantation on acidic ground. As you might expect, the fungi were rather different as well, with species such as the **sickener**, *Russula emetica*, and a single rather elderly cap of **false chanterelle**, *Hygrophoropsis aurantiaca*.

On the way back Stevie was pleased to show us (and we were delighted to see) her top find of the day, clumps of the beautiful **green earth-tongue**, *Microglossum viride*, lining the bank above the river. Again, these fungi were much admired and photographed.

While waiting for the bus to arrive in the layby close to the blue door, we spread out some of the more interesting finds of the day for all to admire and study. It had been a most interesting and productive foray, with a total recorded of 53 species. The full list is available, if you'd like a copy.

Jim Cook

AUTUMN MEETINGS BUTTERFLIES AND MOTHS OF MALAWI

Tom Prescott - 11th October

Tom started with big ideas - an **elephant** with butterflies for ears! We were all inspired right from the start, with a clip from one of David Attenborough's programmes filmed on a bare mountain-top on the Malawi/Mozambique border. There is a theory that butterflies in tropical rainforest have difficulty in finding each other, owing to the dense cover. It therefore makes sense that they may follow watercourses upstream until they reach the mountain tops, in this case on Mount Mabu. This event takes place for only a short time - half an hour in the morning and for about two weeks in the year - so you really need to be in the right place at the right time to see it. The BBC's macro-photography of diverse tropical species in aerial courtship, with a backdrop of mountains, was unsurpassed.

We were introduced to some of the people and the small farms on which they worked. Tom's trip grew out of a visit to see his daughter, who had gone to take part in the Coll Project Trust which aimed to help the women of Malawi gain access to education through helping with nursery schooling and further education.

We were taken to three main areas. Arriving in Blantyre and then travelling to his daughter's village, then to Liwonde National Park and to the higher mountains in Malawi. Transport was very slow, taking three hours or more to cover 50 miles across deeply rutted dirt roads. Lake Malawi itself takes up a large part of the country, to the eastern side.

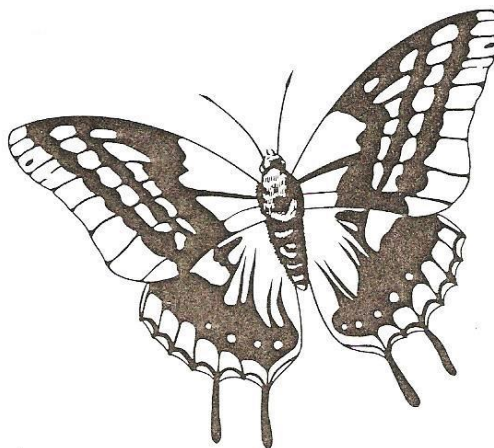
Before departure, Tom could find no book on the butterflies of Malawi, only an old guide to Tanzania. On an expedition overseas like this one it is not easy to take the moth trapping equipment needed on the plane. Batteries cannot be taken by air, nor can most light bulbs. He set off with the minimum of equipment, a "blended" bulb with light fitting and half a dozen egg boxes.

The pictures he took of moths and butterflies were spectacular. The first moth was a type of **emperor moth** followed some very beautiful '**whites**' which were not white at all but very orange and exotic looking. Other moths were recognisably similar to some rare migrants which turn up in the UK such as a **passenger moth** which looks like a stealth bomber. An *Acraea* sp. was very common and caterpillars similar to **eggars** were seen.

Great hospitality was offered by the local people who were fascinated to see the rare Europeans. They seemed to be very happy with their subsistence farming. However, cooking using wood, the only fuel available to them, was causing de-forestation of the mountain slopes and consequent loss of tropical forest and butterfly habitat. There were few places with electricity, so running a moth trap was not straightforward.

At Liwonde National Park an armed guard was needed, and interest was more in safaris for the big mammals than butterflies. **Crocs** and **hippos** were a hazard. Tom set a moth trap eventually, only to find that he had just provided an excellent hunting spot for the local **geckos**, which never missed an opportunity to rush in for a juicy moth attracted to the light. They also hunted around other lighted windows and lights. A moth somewhat like a **beautiful chinamark** was caught.

Tom had two contacts, one, David Clough, was from Kilmartin in Scotland and was a keen Lepidopterist. The other was 84 year old Ray Murphy who had lived in Malawi for over 45 years and was the only entomologist in the country. He proved to be a great character and nimble with a butterfly net despite his advanced years. The three enthusiasts mounted an expedition up a mountain on the border, similar to David Attenborough's location. Numerous porters carried all sorts of gear up the mountains, including large batteries for the moth traps. They advanced uphill through good tropical forest, which is now rare. Camping at the top, near 'butterfly rock' they spent a few days trapping and catching butterflies as they appeared. These species have been collected and identified to add to the knowledge of the Lepidoptera of the area. It is thought that there may be different species gathering at each hilltop. Some of the moths may not have been recorded before and the information gained may help with conservation of some of this remaining forest.



On Tom's return home an added bonus was to discover the existence of a list of the Butterflies of Malawi by David Gifford published in 1965. His son who lives in Aberfeldy still possesses some original specimens and field notes for the collection. Tom hopes to pursue some of the material at the NMS during the coming winter months.

Cathy Caudwell

SCOTIA SEEDS

Giles Laverack - 24th October

Giles started with a "World Expo" event that he had attended in Milan in 2015. Around a **hive** sculpture was a meadow raised up to eye level - a good way of giving us humans a **bee's** view of the world.

Photos of a long-established natural meadow near Kindrogan, which would have taken years to develop, illustrated some of the variety of meadowland species. But meadows like this one are now few and far between, as grasslands are now improved and enriched with nitrogen resulting in low botanical diversity. Ninety-five percent of traditional meadows are thought to have disappeared in England through the 20th century. Depletion of these habitats is continuing at an alarming rate, only nature reserves generally having a good record, but non-designated grasslands are fast disappearing.

Information to help us to re-create or restore our diverse grasslands can be gained by looking at the good areas that we have remaining. In the past, the time of cutting of the meadow depended on the farmer's judgement. It does not work to have a "prescribed date" for cutting. If we had more people who understood how to make hay, the management of meadows could be more flexible.

Meadows are created and managed by different people and for different reasons:-

- Road construction. Wild flower areas along roads don't get disturbed too much. Some examples included the Aberdeen bypass which will have hectares of meadow and the new dualled carriageway sections of the A9. Where the road passes through sensitive areas these are to be re-created.
- Agri-environment schemes. These are managed under the Common Agricultural Policy (CAP) at the moment so it is an unknown quantity what will happen with Brexit now Britain is leaving the EU.
- Meadows created around housing and other schemes.
- Community groups.
- NGOs for example Butterfly Conservation and Bumblebee Conservation Trust.
- Individuals.

Giles showed us pictures of a 13-14 year old meadow that has been established at Scotia Seeds' property at Mavisbank near Brechin. It has become impressively diverse. **Yellow rattle** has been used to restrict the growth of some of the grasses. Two species of **orchids** have appeared on their own without seed being introduced. The only management of the Mavisbank meadows has been a small amount of removal of scrub such as **broom**.

Giles then discussed what some the objectives of establishing a meadow are. It is visually attractive, provides biodiversity, fixes carbon dioxide and reduces annual management costs compared with traditional amenity grass cutting management.



It has been estimated that conversion of amenity grassland to meadow could break even in three years, thereafter saving money annually. Edinburgh now has a project to encourage pollinating insects and has planted wildflowers with this in mind. One project has looked at the pollen and nectar production of various wildflowers and ranked the species in order of "usefulness". It is important to include plants providing sources of pollen and nectar early in the year. **White deadnettle** and **dandelions** (left) are useful ones. Seed of annuals are popular with the public but these are not truly meadow species but cornfield weeds. There is a planted strip on Riverside in Dundee which contains mainly annuals like these. To date there has been

little research into what people, the end "users", think about the meadows that have been established. It is not only wildflowers that are needed for wildlife, grasses and nesting places are also needed.

Origin of Seeds

Germany is ahead in this respect. They have organised a "seed zone map" and conducted some research into what happens if seed is grown in areas different from those in which it originated. This work has found that the locally sourced plants may perform better - both flower and seed set are better. There are genetic differences between different areas and local insects do better when using the local plants and, interestingly, so did the parasites of the insects! The UK has a seed zone system for tree seeds but this is not suitable for use with wildflower seed. The Norwegians have devised a complex zoning system which additionally takes soil type into consideration. In the UK there is no regulation over the type of seed that can be sown, except in Nature reserves and "wild land areas". On road verges for example there is no restriction on the place of origin of the seed. In

the past seed used for some of these sites has come from central and southern Europe and also from America. Suppliers of wildflower seed tend to be located in the south of the UK, which is not ideal in Scotland. The German study did not find, contrary to what might be expected with global warming, that moving southern seed northwards helped in any way.

Seed Quality

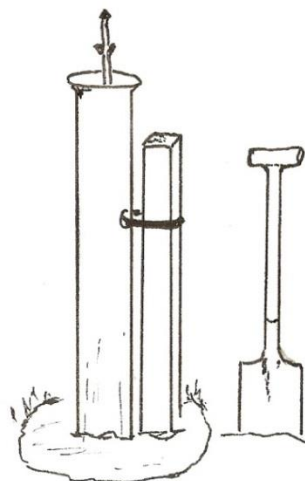
Scotia Seeds is the leading commercial partner in the Native Seed Science Technology and Conservation Training Network. There are some PhD students engaged on this. One student from Croatia is shared between Scotia Seeds and James Hutton Institute (Invergowrie). She has been carrying out a "blind trial" using seed from different commercial suppliers in the UK and has tested the quality of the seed. Quality was found to be very variable as not all companies test their seed. Often this is not possible because of the long germination times needed for some species. A staining test can tell if the seed is alive and is more straightforward to do, and is correlated with the germination test. This can be particularly useful with seed such as **yellow rattle** which has to be sown in autumn.

Barry and Cathy Caudwell

30TH ANNIVERSARY TREE-PLANTING DAY

29th October

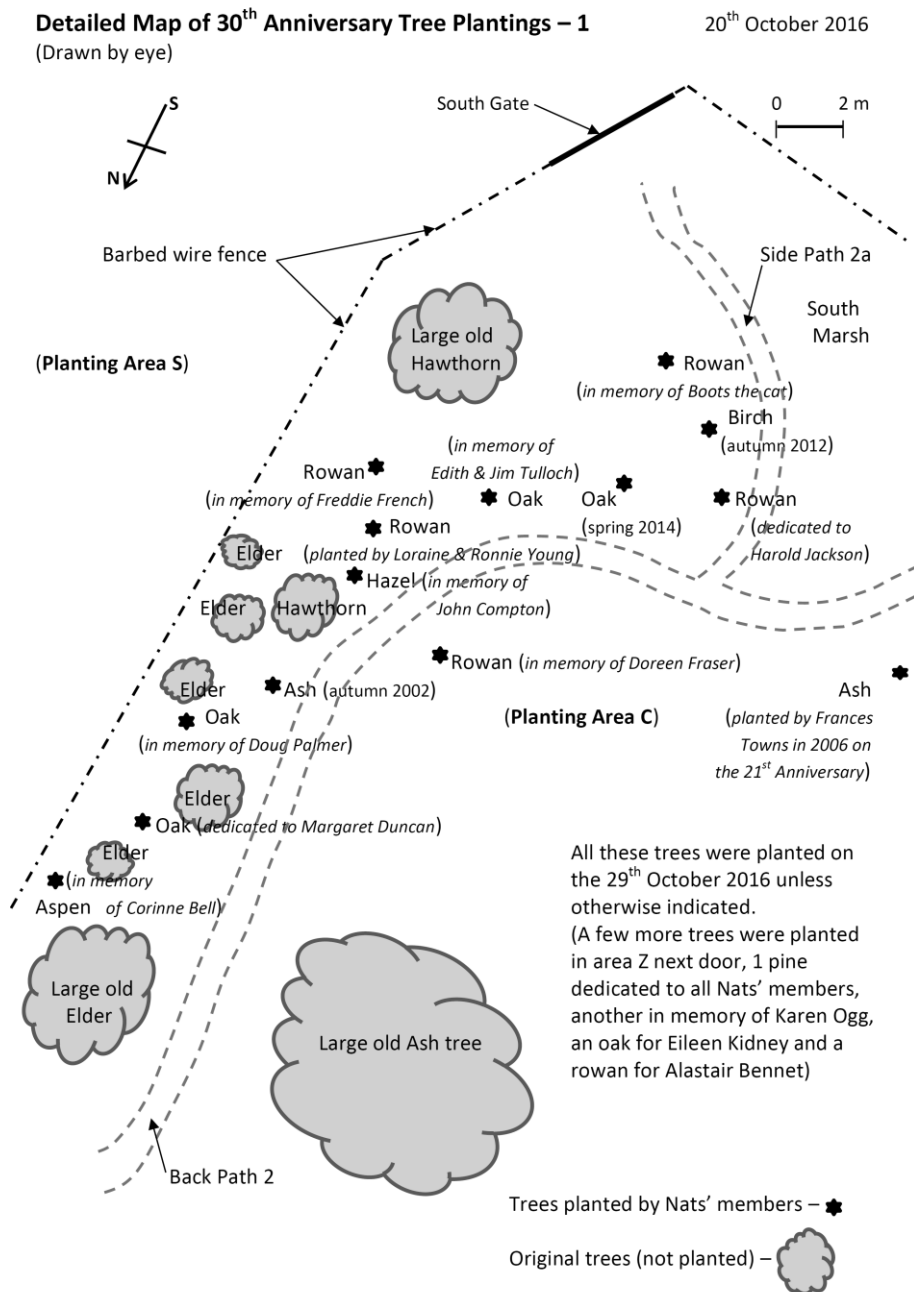
It was a lovely sunny day when a mix of quarry veterans and newer members gathered at the quarry to plant a series of commemoration trees. Ronnie Ogg, Jackie McKay, Mike Sedakat, Barbara Bell and Beryl Shepherd met up with Brian and Jenny Allan, Dorothy Fyffe and Jim at the hide. A number of holes that had been dug earlier were ready and waiting and the group made the most of the weather. Brian and Jenny soon planted a **rowan** in memory of the late Doreen Fraser, Barbara and Beryl put in a small **oak** in memory of Barbara's parents, Jackie planted a fine **rowan** that she had brought (to remember her cat) and we all gathered around to help plant a **hazel** in memory of the original owner, John Compton, who'd had so much to do with the quarry as a wildlife site in the first place. Meanwhile, Ronnie Ogg and Jackie McKay planted a fine young **Scots pine** for our Society, the Nats, and three more trees on the bank on the other side of the south marsh. All of the newly-planted trees were each mulched with a large square of geotextile, generously donated by Ronnie Ogg and also protected by a stake and wire mesh cylinder, as usual. Loraine and Ronnie Young had donated a large **rowan** in a pot and, although Mike, Dorothy and others had to dig a hole large enough for it, it was soon planted as well - and all this activity was before lunch!



We'd all developed a good appetite and most of the party enjoyed their packed lunches in and around the hide but Jenny and Brian had gone one better and brought a gas stove and pan, sausages and onions to 'christen' the stone-lined stove recess in the mound opposite the hide door by tantalising everyone else with a fry-up. Delicious and much appreciated! In doing this they repeated their cooked lunch at the very first planting day back in 1986. After their lunch, Barbara and Beryl checked the site where Barbara was intending to plant an **aspen**. (Which she did a few weeks later. Ed.)

Meanwhile, the rest of the group gathered around to help carry the recently re-painted picnic tables up a steep bank to a high but sheltered hollow nearby under the **hazels** at the edge of area C. There they were protected by plastic covers (courtesy of eBay), which were tied down and weighted with stones in the hope of stopping them beating about too much in winter gales. Also, they should be high enough there to be above the maximum height of any flood. A good-sized young **pine** was planted later at the north east corner of the hide and dedicated to Margaret Duncan to mark her many major contributions to the quarry project. Finally, Dorothy Fyffe had kindly donated a couple of **ivy** plants in pots along with a small **holly**. One of the ivies was planted, at Jenny's suggestion, beside the wildlife wall at the base of the large upstanding branch. The other went in at the base of the large **ash** near pond 5. A total of 17 of these dedicated or memorial trees were planted. Many thanks to all who came along to help with the planting and donated trees and plants; it had been a great day. Map of commemoration tree plantings on page 32 (overleaf).

Jim Cook



BIRDS OF ANGUS - FROM GLENS TO COAST

Gus Guthrie - 8th November

Currently the president of the Angus and Dundee Bird Club, Gus is well-known in local birding circles and it is no surprise to come across him in out-of-the way corners of the Angus countryside, especially if a rare bird has been reported. While out and about he always carries his camera and thus has photographs of nearly every bird to be found locally. This enabled him to give us a very comprehensive overview of the local birdlife with almost all his photos actually taken locally.

He started on the high ground of Glas Maol with the resident **ptarmigan** which are superbly adapted for the harsh conditions and stay on the hills all the year round. The related **red grouse** prefer slightly more sheltered conditions amongst the heather. In summer, the commonest birds on high ground are probably **meadow pipits** but careful scanning may reveal the more timid **ring ouzels** on steep rocky slopes. The woodland in the lower glens comes alive in spring with the song of

migrants such as **blackcap**, **chiffchaff** and **willow warbler** but exotic-looking birds such as **redstarts** are also likely to be present.

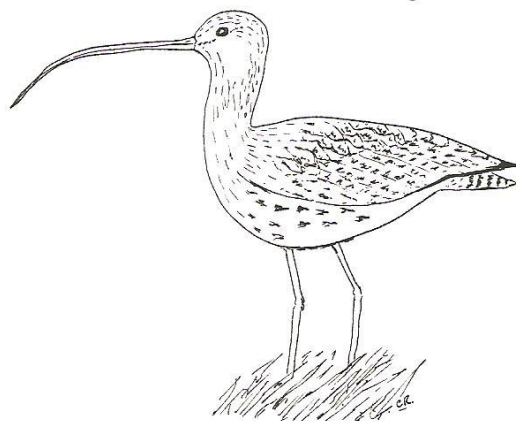
On the way down to lower ground Gus then paused at Loch of Kinnordy RSPB reserve, one of his frequent haunts. Having been brought up on a farm to the west of the reserve, and now living in Kirriemuir it is his 'home patch' so woodland birds such as **robin** and **tits** were illustrated here and also the wide range of water birds which the site attracts. **Mallard**, **wigeon**, **teal** and **shoveller** are common and **marsh harriers** have recently become a summer fixture, rearing young over the last few years. The local **ospreys** use Kinnordy for fishing and up to five different individuals have been identified as visiting on a single day - the benefit of so many photographers with powerful lenses being able to read the coloured leg rings to distinguish the birds. Less frequent winter visitors include **bittern** and **smew** and, last year in particular, large numbers of **snipe**, **lapwings** and other waders were to be found on the **bogbean** 'islands'.

Farmland these days has a more restricted range of species than once, especially since fields got larger and hedgerows were removed, but **yellowhammers** and **linnets** can still be found. Flooded fields may support waders such as **ruff**, **curlew** and **sandpiper** when on migration.

Moving down to the coast we were shown a selection of the birds which nest on our cliffs, including **guillemots**, **razorbills** and **kittiwakes**. **Gannets** hunt close offshore with their unmistakeable diving technique and a range of **gulls** was also shown here, with the uncommon **Iceland gull**, one of Gus's favourites, featuring largely.

The general rule of birding is that anything can turn up anywhere so we were also shown some of the 'strays' which have been spotted in Angus. Amongst others there was a **desert wheatear** at Montrose, **common cranes** near Eassie and **spoonbills** at Montrose Basin in the recent past.

Altogether this was a most enjoyable overview of the local bird life with Gus's enthusiasm for the subject showing clearly how much pleasure birding gave him. It was particularly interesting to hear how the local bird populations have changed since Gus's childhood in the area around Kirriemuir which he knows so well.



Anne Reid

RIVERSIDE NATURE PARK

12th November

Arriving slightly early at Riverside Nature Park, I noted a few **blackbirds** by the access road and some skeins of **pink-footed geese** flying out from the river. A **robin** was spotted in the trees by the car park and a pair of **carriion crows** overflew. **Woodpigeons** were passing over as the number of Nats grew ahead of the 10.00 start time for the walk.

By the time we were ready to set off there were around a dozen or so members and also Ian Ford, the chairman of the Friends of Riverside Nature Park group (and a lapsed Nats member, with intent to rejoin). Having Ian along was very beneficial as he knows the park inside out and his knowledge isn't limited to the birds (unlike my own), but extends to almost the complete spectrum of nature that we could possibly encounter in the park. With a rather high tide due around lunchtime I decided we should first head round to check out Invergowrie bay and then onto the hide, before coming back via the Lochan and then looking at the boggy area near Buzzard Wood and around the lower half of the park before lunchtime.

More **geese** overflew and there were **blackbirds**, **robins** and **chaffinches** seen from the path as we left the car park to walk the gentle slope towards the hill. A pair of **mallards** overflew in the direction of the airport. I heard **redwings** passing over and managed to see a couple of birds flying westwards. There were also **song thrushes** and **greenfinches** in the bushes by the path and a **dunnoek** was spotted a little further round towards the bay. A **linnet** and a few **lesser redpolls** flew over as we neared the bench marking the southwest extremity of the path network. Scanning out

across the bay was made easier by the flat calm conditions on the water. A few **skylarks** passed overhead and **herring gulls** and **black-headed gulls** could be seen in the bay towards the railway line.

The first **buzzard** of the day flew to the north. Scanning the mud found **redshanks** and a few **black-tailed godwits**, while well out on the river were a trio of **red-breasted mergansers** that proved tricky to identify though photos showed detail we were struggling to pick out using the scope. A **common gull** flew into the bay and a charm of **goldfinches** were in the shrubbery on the slope below the fence line. There were **greylag geese** and a few **pink-footed geese** over towards the railway line.

We wandered on in a long strung-out line to the hide. A pair of **stock doves** flew in to land up on the hill but were missed by most of the group. A **meadow pipit** and another larger group of **skylarks** overflowed. From the hide we added **feral pigeons** and **teal** and had better views of the waders. Disappointingly these were mostly **redshanks**, with a few **black-tailed godwits** and **dunlin** but nothing else of note. A **pied wagtail** flew over as we walked back along to the Lochan. There were more **redshanks**, a pair of **dunlin** and some **mallards** and **teal** here. A **cormorant** headed over in the direction of the bay. I found a small rather nondescript **moth** on the path but despite attempts at an ID there was no firm conclusion reached.

Another **buzzard** was seen being harassed by **carriage crows** to the north and a second one was also being harassed further out to the west of the hospital. There were sadly a number of **rabbit** corpses littered around the park in various places, victims of **myxomatosis**, which is currently taking a heavy toll in the park. We reached the car park, where Ian changed his footwear to wellies to make



our search for **snipe** easier. We appeared to have lost a few stragglers and waited for them to show up but eventually when they failed to show we moved on to the marshy area stopping to check for some fungi that had been reportedly found below the bushes (**wood blewits**, I believe), but we drew a blank. A few areas in the park had small groups of **shaggy inkcap** fungi growing (left).

Ian waded into the wetter parts of the boggy area, while I stayed in the slightly shallower areas. A single **snipe** flushed and flew off at speed. Seconds later a second bird flushed silently, this one was a **jack snipe** and Wendy, standing waiting for the stragglers to appear, had great views as it flew right over her. I thought I saw a **dragonfly** despite it being almost mid-November and mentioned it to Ian. Minutes later by the corner of Buzzard Wood someone spotted a definite **dragonfly** - a **common darter**. A **maggie** was seen on the grass and round behind Buzzard Wood we found **bullfinch**, a **blue tit** in the trees and **house sparrows** in the hedge between the cow fields along with **blackbirds** and **chaffinches**.

Rather than take the path back to the car park we followed the bushes around the edge of the grassy area to the west of the path. Wendy

found some "**star jelly**" on the grass and there was much discussion about what it actually was before we headed back to the car park. With most of the group heading on to the Botanic Gardens for lunch we ended the walk after just under two and a half hours in the park having seen 36 species of bird.

Barry Farquharson

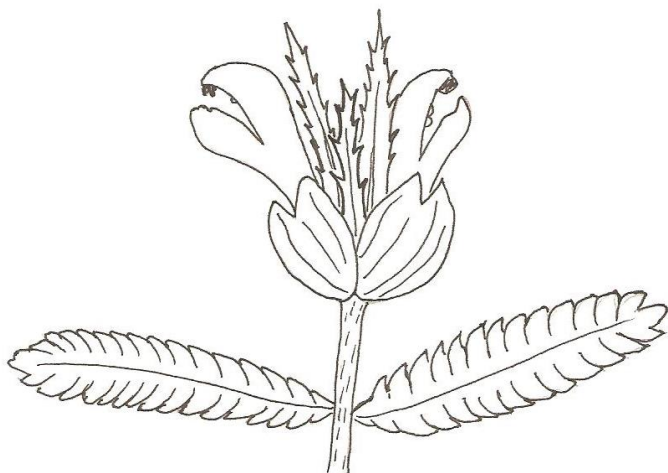
I made another circuit of the park later with Ian and added another eight species of bird taking the total to 44: **curlew**, **great spotted woodpecker**, **great tit**, **kestrel**, **long-tailed tit**, **mistle thrush**, **starling** and **wren**.

FLORA OF ANGUS

Theo Loizou - 22nd November
Joint meeting with the Botanical Society of Scotland

Theo Loizou, joint Botanical Recorder for Angus for the Botanical Society of the Britain and Ireland, gave an interesting account of the flora of the vice-county. He began by describing the process of recording in progress for the Atlas 2020 project. Recording is mainly done in tetrads (2x2km squares) and distribution maps can be produced for the whole of Great Britain and Ireland.

He reviewed the factors affecting plant distribution including geology, altitude, aspect, salinity, climate, soil, plant competition and human activity. Angus is bisected by the Highland Boundary Fault, with mainly metamorphic rock to the north and predominantly old red sandstone to the south.



The county has approximately 750 native species and 270 established alien species. In recent years some apparently lost plants have been re-found, including **glaucous meadow-grass** (*Poa glauca*), **curved sedge** (*Carex maritima*) and **Wilson's filmy fern** (*Hymenophyllum wilsonii*). Two **lady's mantle** species have been recorded in Angus for the first time recently (*Alchemilla acutiloba* and *A. glaucescens*).

Theo then took us on a tour of various habitats in Angus. The coastal site of Barry Links has a remarkable 460 recorded species. Easthaven is

another rich site with **greater yellow rattle** (*Rhinanthus angustifolius*) (above). Carlingheugh Bay has **clustered bellflower** (*Campanula glomerata*), **wild liquorice** (*Astragalus glycyphyllos*) and **greater knapweed** (*Centaurea scabiosa*). There has been a sharp decline in **sea pea** (*Lathyrus japonicus*) at its one remaining coastal location.

Wetlands are a prominent feature of the Lunan valley and include a large population of the rare **Scandinavian small-reed** (*Calamagrostis purpurea*).

Moving into the uplands, Glas Maol has a good moss flora and nearby are rarities such as **alpine pearlwort** (*Sagina saginoides*), **sibbaldia** (*Sibbaldia procumbens*), **rock speedwell** (*Veronica fruticans*) and **alpine saxifrage** (*Saxifraga nivalis*). Little Kilrannoch has a large population of the very rare **alpine catchfly** (*Lychnis alpina*) and the rare **alpine sowthistle** (*Cicerbita alpina*) is also in these mountains. Some species such as the fern **alpine woodsia** (*Woodsia ilwensis*) appear to be becoming more scarce.

There are 18 species of orchid known to be in Angus and undoubtedly more sites await discovery. We were all encouraged to note any we saw and to count the number of plants as a small contribution to the enormous task of recording our flora

We were told about the threats to our native flora, which include some farming practices, overgrazing and invasive species such as the native **bracken** (*Pteridium aquilinum*).

Our members were again encouraged to send botanical observations and lists - complete or partial - to our local recorders.

Brian Ballinger

SCOTTISH DINOSAURS AND OTHER FOSSILS

Steve Brusatte - 6th December

Steve Brusatte's enthusiasm for his subject was contagious. Much is known about dinosaurs from other parts of the world with the exception of the mid Jurassic period where there seems to be a dearth of fossil evidence. He knew that Skye had sedimentary and harder rocks of the time. Off he and his team went to hunt for fossils. His particular interest is vertebrates which includes reptiles -

several species of **crocodile** and **snakes** were found. The weather was inclement and some of the rock very hard.

When looking for fossils it is important to look for geological formations which would not occur naturally. A line of sizeable depressions indicated a large animal walking on four legs on substrate which had not quite solidified. Today this area is an extensive shelf of flat rock at low tide - ideal for finding fossils. Foot prints were found in 1983 by Dugald Ross, a young enthusiastic native of Skye who started the Staffin Museum for his local finds of fossils and artefacts from the Bronze Age.

In 1966 a fossil skeleton had been discovered by Rory Gillies who ran the Storr Lochs power station. This was duly removed to Edinburgh but was not studied and forgotten about. After publicity for another fossil in 2015 Rory's son, Alan (who also worked at the power station), got in touch to enquire about the specimen. By a lucky coincidence Steve had just re-found it in the museum store at Granton but it was still in its original block of rock. The kitty was empty for preparing the fossil find, but SSE, who now ran the Storr Lochs power station, were persuaded that it was a worthwhile project and funded the preparation. This yielded over 100 bones and proved to be a good specimen of a marine, air-breathing **ichthyosaurus** which became known as the Storr Lochs monster. The story got into the tabloid press and has stirred up interest world-wide.

This was a fascinating lecture on a fast-developing area of palaeontology in Scotland which few of us knew much about. Let us hope for yet more Skye discoveries.

Margaret Bainbridge

BRYOPHYTE WORKSHOP

Dr David Chamberlain - 7th December

David Chamberlain of the Royal Botanic Gardens Edinburgh had kindly offered to conduct a moss workshop and it proved possible to hold it in the collections unit of Dundee Museum at Barrack Street, thanks to the help of Mike Sedakat. This was an educational exercise but also aimed to contribute information for the Botanical Society of Scotland's urban flora project. Mosses and liverworts are present all year round so it was quite appropriate to hold it in December.

The morning session was spent indoors and began with a talk from David describing the structure, life cycle, classification and ecological characteristics of mosses, liverworts and hornworts (Bryophytes). We then settled down with microscopes, hand lenses and field guides to try to identify some species with a lot of help from our tutor. Much practice is needed but we felt we made a useful start. David had brought some specimens from Edinburgh and some of those attending had also brought material.



We adjourned to the museum cafe for lunch, where we had reserved a table to keep a place amongst all the Christmas shoppers.

In the afternoon we walked slowly up to Dudhope Park, entering a different recording square from our previous moss outing held last year. There were some good old walls with typical species such as *Tortula muralis*, *Grimmia pulvinata* and *Schistidium crassipilum*. Pavements yielded more, including the liverwort *Marchantia polymorpha*. At Dudhope Park the cobbles were rewarding and some walls were coated in mosses.

Walking down the steep path to the main road, we passed *Fissidens bryoides* and going through the industrial area there were some damp walls and pavements coated in green. Finally the

short winter afternoon was coming to an end but by this time we had found 25 species. We thanked David Chamberlain for an instructive and enjoyable day.

Brian Ballinger

LANDS OF THE MIDNIGHT SUN

Alban Houghton - 14th December

This was the Dundee Naturalists' contribution to the Wednesday afternoon lecture series and we were back in our old haunt of room T9 in the Tower Building.

Alban described visits to several northern destinations including Greenland, Iceland, Svalbard and Swedish Lapland. He showed us the distribution of tundra and trees in the northern hemisphere. In Europe the trees extend further north than elsewhere because of the influence of the Gulf Stream.

The visit to Greenland was by boat and the party landed in three places on the east coast. The ship was the ill-fated "Explorer" which sank on a subsequent voyage, but fortunately this trip was uneventful. **Icebergs** surrounded them and four species of **seal** were spotted. In the middle of the night (when it was still daylight) the group was awakened to view **polar bears** devouring a **seal**. There were some fine arctic flowers, including some known in Scotland, such as **alpine saxifrage** (*Saxifraga nivalis*), **tufted saxifrage** (*Saxifraga cespitosa*) and **diapensia** (*Diapensia lapponica*) as well as others not recorded in the UK such as the **lousewort** *Pedicularis lapponica* and **buttercup** *Ranunculus pygmaeus*. The guide accompanying the party carried a gun in case any **polar bears** or **musk-ox** appeared.

Another place visited was Svalbard to the north of Norway and here there were **barnacle geese** and some unfamiliar plants such as the **poppy** *Papaver dahlianum* and the **willow** *Salix polaris*. Again some British rarities were present such as **marsh saxifrage** (*Saxifraga hirculus*).

On a trip to Iceland, Alban joined a camping party which went round the north of the island and down through the middle, along the tectonic plate boundary. This was a land full of **waterfalls** and **volcanic activity**, with some warm bathing. There were unfamiliar plants such as the **orchid** *Platanthera hyperborea* and the **willowherb** *Chamerion latifolium* and some British rarities such as **alpine catchfly** (*Lychnis alpina*) (right).



Finally we came to Swedish Lapland and in particular Abisko in the Arctic Circle. There were varied habitats including **birchwood**, **bog** and **open hill**. Birds seen included **red-spotted bluethroat**, **wood sandpiper** and **long-tailed skua**. **Mosquitoes** were also in evidence. Some of our rare Scottish plants were present in quantity, including **twinflower** (*Linnaea borealis*) and **one-flowered wintergreen** (*Moneses uniflora*) as well as some unknown here such as *Cassiope* species.

This is indeed a very beautiful and rewarding area to visit, particularly during the long summer days, and Alban showed us a good cross-section of the natural history to be found in the far north.

Brian Ballinger

DUNDEE NATURALISTS - PAST, PRESENT AND FUTURE

Brian Allan - 20th December

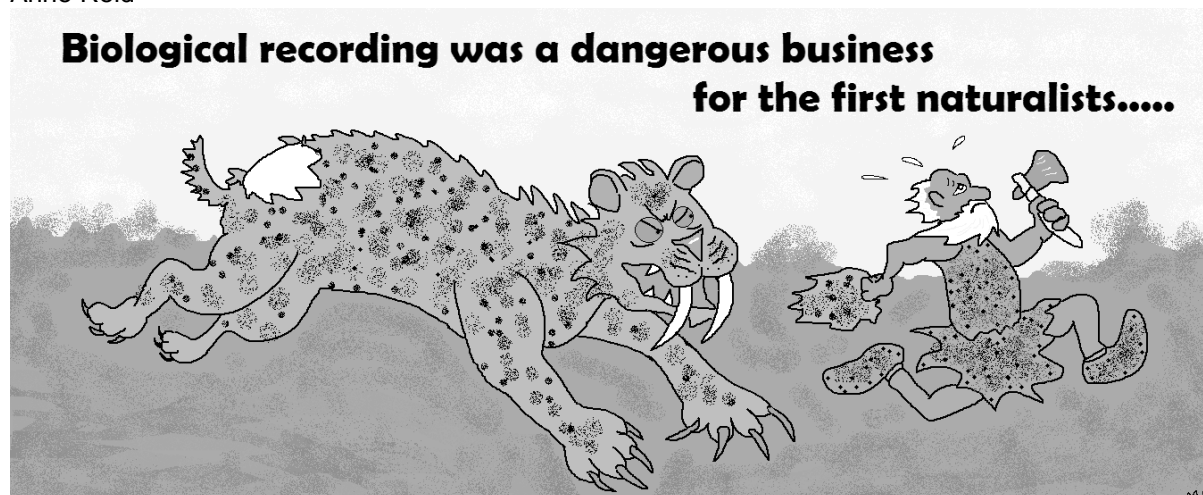
Our President, Brian Allan, goes back a long way in the Nats and even admits it himself. He was one of the important band of volunteers in the early 70s who saved the Society from oblivion under the capable leadership of Elizabeth Leitch. Brian has also been taking photographs of outings and activities ever since and it was a selection of these, supplemented by those of other long-standing members, that we were shown as a reminder of earlier times, members no longer with us, and those active now.

The early days featured flared trousers and full heads of hair. Notable stalwarts such as Gert Robertson, Ella Gracie, Eileen Kidney and Frances Towns were all remembered and the very young-looking Brian, Jenny, Jim and Dorothy appeared in a number of photos. All sorts of locations were covered, from local Nats outings to the Mediterranean trips led by Brian which many Nats had attended over the years. The sun always seemed to be shining in Brian's photos.

More recent activities were easily recalled by many present and the future was represented by Tom and Mary Harwood's grandchildren, and a plea to bring more young(er) folk to meetings and outings. There were too many names and places to mention them all but everyone was reminded of past activities and members now departed. Our enjoyment was enhanced by some amusing and highly appropriate cartoons which Mike Sedakat had drawn for the lecture (see below).

We rounded off a most enjoyable evening with the customary refreshments and much conversation and reminiscence.

Anne Reid



MEMBERS' ARTICLES INTERESTING SIGHTINGS 2016

This compilation is intended to let people know what has been seen locally. All contributions are welcome. Each entry is followed by the initials of the recorder. The location of garden records is noted on the list below.

The year once again had very mixed weather, but few extremes. The summer was 'better' than 2015 but we still had no prolonged hot weather. Several parts of the country had rain which caused flooding but we were not affected locally.

(Interestingly, nobody appears to have looked at any natural history in December - or did you all forget to send it to me!! Ed.)

Margaret Bainbridge	MB	Monifieth
Brian Ballinger	BB	Dundee, West end
Gordon Maxwell	GM	
Colin McLeod	CM	
Jim Cook	JC	Broughty Ferry
Daphne Macfarlane Smith	DMS	Broughty Ferry
Anne Reid	AR	Monifieth
Colin Reid	CR	Monifieth
Kati Smith	KS	Dundee, West end
Lorna Ward	LW	
Brian Williamson	BW	Dundee, Law area

4th January Pleased to see pair of **siskin** feeding on ground under sunflower-seed feeder. (On 9th there were four females and two males, then one or two every week until 26th March.) DMS.

8th January A **great spotted woodpecker** visited our garden; also a pair of **blackcaps**, **greenfinch**, **chaffinch**, **robin**, **blue tit**, **great tit** and **blackbird**. BW.

8th January During the sunny weather in the morning, several small flocks of **redwings** were flitting between the trees in Dawson Park and one or two **fieldfares** could be seen in the area as well. JC.

8th January From the car park by the Golf Museum at St. Andrews I was delighted to find **purple sandpipers** (my first ever sighting) feeding on rocks with **turnstones**. BW.

10th January On an RSPB outing, while at Mains of Usan, I saw a white bird with black wingtips flying high overhead and, being by the sea, my first thought was **gannet** but it wasn't flying like one and then I saw its slender upturned beak - an **avocet**! Unexpected so even more special. DMS.

13th January While walking from Elliot to Easthaven (another BTO survey!) I spotted a strange gull on the shore, rooting about for food amongst the washed-up seaweed. When it flew the wings were all white so photographs were taken as I knew it was significant. It turned out to be a first year **glaucous gull**. AR
(Photo, right, Barry Farquharson).

16th January Rather unexpectedly a **pheasant** appeared underneath the bird feeders and stayed most of the morning. A new garden visitor and a species which is rarely seen anywhere nearby. AR.

20th January Was woken about 4.30am during a calm night by a noise right outside the house and then heard it again - a high-pitched double yelp - the cry of a lonely **fox**. The animal called several times more as it evidently trotted down the road. JC.



20th January On Largo Bay, near Lower Largo, the River Forth was calm and migrant wintering sea ducks were on display, such as **common scoter** (>500!), **velvet scoter**, **Slavonian grebe**, **long-tailed duck**, **wigeon** and **eider**. **Oystercatcher**, **redshank**, **curlew** explored the beach, and a few **guillemot**, **cormorants** and **razorbills** were spotted off shore. BW.

25th January On another survey walk at Elliot I found a full-grown **fox moth caterpillar** wandering on the dunes. It had been unusually mild for a couple of days, but I was still somewhat surprised. AR.

2nd February On looking out late on a fine night, at around 11.30 pm, I happened to catch sight of a large and handsome **fox** under a streetlight. It was going in to neighbours' gateways and then coming out after a minute or two - obviously finding nothing of interest. Although the beautiful red body faded into the shadows, I could follow its movements by the almost shining white tail-tip. It visited several houses and then almost casually trotted off down the road. JC.

7th February A **sparrowhawk** was seen perching on the garden feeders again. BB.

8th February I spotted a **bittern** at Lochore Meadows, much to the excitement and disbelief of Fife birders. The last bittern seen in Fife was in 2001 by one person, since 1925. KS.

8th February A drumming **great spotted woodpecker** was heard in Brownie Wood, Gauldry. BB.

19th February A male **blackcap** came briefly to sunflower seeds but boisterous **greenfinches** saw it off. (On 26th a female **blackcap** was drinking from the birdbath.) DMS.

21st February At Montrose Basin I was entertained by a **kingfisher** that repeatedly hovered over the lagoons before diving for fish - the first time I have seen this behaviour. A wide range of ducks were on show that day with **pintail** (c 70), **teal**, **goldeneye**, **wigeon**, **shelduck** and **scaup** (c 30), and all the usual waders and gulls. BW.

21st February Saw five **long-tailed tits** clustered on fatballs. DMS.

23rd February Soon after 8am a **maggie** called a few times from the garden next door, the first I've heard in the close vicinity this year. JC.

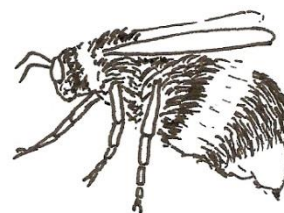
1st March **Frog spawn** in the garden pond (and about 50 **frogs**). BB.

3rd March At Vane Farm RSPB Reserve was pleased to find **brambling** (2 male, 1 female) beneath the feeders amongst the usual finches and tits. This is one of the few places where one can expect to see **pochard** and **great crested grebes** amongst the more familiar ducks on Loch Leven. BW.

4th March Heard and then saw my first **skylarks** of the season, singing vigorously above the short stubble in the field just to the north of Carsegowniemuir Quarry. There were no **lapwings**, though, once again. JC.

12th March A large **buff-tailed bumblebee** in the garden. Also, on the pavement outside South Church Halls (Monifieth) a **frog** which was removed to safety! MB.

14th March I, too, had a **buff-tailed bumblebee** queen flying around my garden. AR.



14th March A clear sunny day when I saw my first **buff-tailed bumblebee** of the year and first butterfly, a **red admiral** in our garden. DMS.

20th March At Letham Pools, Fife enjoyed watching **gadwall, teal, goosander, wigeon, mallard, tufted duck, pochard** and **goldeneye**. There were also a good range of waders – **curlew, lapwing**, and **redshank**, a **water rail** lurked in the reeds, and about 200 **pink-footed geese** were feeding on the meadow. By Luthrie, Fife on flooded land there was a **green-winged teal** amongst the **Eurasian teal** (c 100), over 300 **wigeon** and about 100 **pink-footed geese**. BW.

23rd March At Backwater Reservoir saw a pair of mature **white-tailed eagles**, **redwing, fieldfare, song thrush, buzzard**, three **ravens**, and on the water were a pair of **goosander** (right) and some **common gulls**. Then beside Loch of Lintrathen we witnessed a large migrating flock of **redwings** and **fieldfares**. BW.



30th March A **woodmouse**, looking rather cute with its big dark eyes, was sitting up feeding on seeds put out on the paving slabs for the birds. DMS.

10th April By Letham Pools, Fife watched a hunting **short-eared owl** quartering a meadow. My first sighting of **sand martin** (c 20) and **skylarks** were singing. BW.

10th April Saw first **carder bee** and early **bumblebee**. DMS.

13th April A **heron** eating **frogs** in the garden pond. BB.

15th April On Law Crescent recorded my first **chiffchaff** and **willow warbler** this season. BW.

17th April Felt it must be Spring at last when I heard **chiffchaff** and **willow warbler** at Drumoig and saw two **swallows**. DMS.

18th April A **blue tit** was busy tugging bark off an **azalea** bush for its nest. I had mixed feelings about this (!) but it did look quite comical with its big 'moustache' of bark strips. DMS.

20th April Over 50 **sand martins** were establishing nests in a sand bank near Loch of Lintrathen, and another colony was busy with martins at the end of Backwater Reservoir. BW.

20th April The first **small tortoiseshell** seen in the garden. MB.

22nd April A **fox** with a small cub by the garden pond. BB.

24th April A **sparrowhawk** was seen circling high over the Botanic Gardens at about 3.30pm. It obviously wasn't hunting; perhaps it was displaying. A short time later a **buzzard** flew low over the Garden, while being closely harassed by two **crows**. I wonder if it was the same that I saw ten days earlier? JC. (There are known to be a number of **buzzards** in the area, two or three are often seen at the same time. Ed.)

26th April A **kestrel** was seen hovering over the field at the sharp corner of the back road from Dundee near Carsegowniemuir Quarry; a sight I'd not seen anywhere around there for many years. JC.

27th April On a walk to the south outer Tay Estuary found a pair of **stonechats, wheatear, meadow pipit, goldfinch** and **mistle thrush** on migration in the dune slacks. BW.

30th April At about 6.30pm, I looked out at the sunflower-seed feeder and saw two **goldfinches** but also something 'different' so looked through binoculars and astonished to see it was a **redpoll** - with a noticeable pink forehead - the first ever in our garden! It stayed feeding for about five minutes but did not return. DMS.

4th May At about 1pm, I caught a glimpse of a **song thrush** beating one of the all-too-common large, fat **garden snails** on the path to the back gate. Good luck to the bird and its lunch; I left it in peace. It's good to know that they're around - and there are far too many snails! JC.

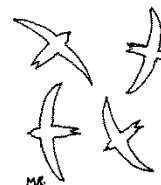
6th May Heard my first **willow warbler** of the year, in Carsegowniemuir Quarry. The **swallows** are now back in numbers and the **house martins** have returned as well. JC.

7th May Saw three **house martins** and heard the rasping song of a **sedge warbler** at Drumoig. DMS.

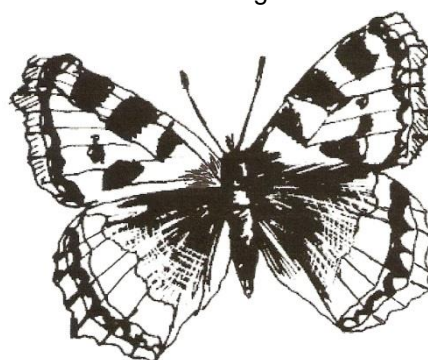
8th May Two **swifts** over Stobsmuir Ponds, my first of the year. AR.

13th May Heard my first **swifts** of the year fairly early in the morning, screaming high in the sky over the centre of the city. JC.

13th May While trimming a variegated **Eunonymus** shrub, I noticed a small colourful **caterpillar** (red and white with black dots) and identified it as a **magpie moth**. In fact there were at least six of them but they



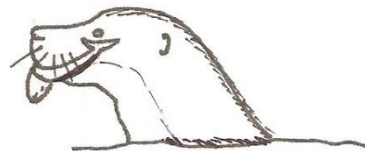
- didn't seem to be doing too much damage so I left them to their munching! DMS.
- 15th May** A **blackcap** was singing strongly in the garden next door. I'd heard several others singing further along the road a few days earlier. JC.
- 31st May** There were 15 **swifts** circling/feeding over the Forthill area (the maximum number this year and the same as two years ago). DMS.
- 2nd June** A **great spotted woodpecker** visited our garden. BW.
- 2nd June** At Fowlsheugh RSPB Reserve watched **house martins** nesting in conglomerate (where boulders had fallen from the cliff leaving holes) on south cove. A **roe deer** climbed up the grassy slope from the beach, and a **sedge warbler** and **whitethroat** sang. Then we enjoyed all the usual seabirds on the reserve. BW.
- 29th June** A pair of **bullfinches** taking sunflower hearts on our feeders, along with **chaffinch**, **coal tit** and **blue tit**. BW.
- 9th July** Four **magpies** and a **jay** visited our garden. BW.
- 10th July** While hanging out washing, I looked up and saw a small dainty raptor circling high overhead before it drifted to NE - I'm sure it must have been a **merlin**. Also a **jay** flew across the garden, a new species for my garden list! DMS.
- 15th July** Late on a mild evening, after a very wet afternoon, a lone small **bat**, probably a **pipistrelle**, was flying along the line of trees beside the path at the west end of Dawson Park and around the lights along the path between the main car park and the central pavilion. JC.
- 21st July** At the Eden Estuary hide watched two **common sandpipers**, **redshank**, juvenile **lapwings**, **curlew**, **oystercatcher**, and **shelduck** and had wonderful view of a **little egret** - plus all the usual gulls and finches. BW.
- 30th July** A walk north along the Seaton Cliffs SWT Reserve at Arbroath in sunshine gave splendid views of several butterfly species, including **painted lady**, **common blue**, **small tortoiseshell**, **dark green fritillary** and **six-spot burnet moth**. Over a **hundred sandwich terns** were roosting on the rocks. BW.
- 13th August** There were 200 **Canada geese** on the River Isla at Coupar Angus (175 on the water and sandbanks, 25 grazing in an adjacent stubble field). Despite being nervous, they all absolutely refused to take flight, suggesting that they may still have been in moult, although it seems a little late in the summer for that. To think that 50 years ago, sightings of just ones or twos in Perthshire were considered sufficiently noteworthy to merit publication! Also saw a **kingfisher** fishing on the Isla just downstream from Coupar Angus. CM.
- 17th August** On a warm sunny day, several butterflies were sunning themselves high on the house. Although difficult to see, several at least were **small tortoiseshells**. JC.
- 21st August** Near the Ice House, Tentsmuir, I saw my only **comma** of the year feeding on **ragwort**, along with a **painted lady**. DMS.
- 31st August** Six **long-tailed tits** visited our garden in the evening, and a **willow warbler** appeared in the cherry trees. BW.
- 4th September** A juvenile **wheatear** was seen on gravel in the front garden of house on Kinghorne Road on The Law. BW.
- 8th September** A single **peacock butterfly** (one of only a few seen this year) was fluttering around the garden, visiting the **buddleia** in flower, on a warm but dull and distinctly damp morning. JC.
- 13th September** At the Eden Estuary hide had my first view of a **curlew sandpiper**. Also saw two **little egrets**, **black-tailed godwits**, **greenshank**, **curlew**, **redshank**, **lapwing** and several duck and gull species. BW.
- 14th September** At Lairds Loch found **small tortoiseshell**, **peacock**, **painted lady** and **red admiral butterflies** all together on the same patch of wild flowers. GM.
- 14th September** Opened the bird box and cleared out contents - a neat cup of **moss**, strips of **azalea bark** (see 18th April) and bits of coloured fluff but so clean I don't believe eggs were ever laid in it. DMS.
- 19th September** First autumn sighting of a large skein of **pink-footed geese** flying over central Dundee, at height, in a general southerly direction. CR.
- 20th September** At 7.40 pm in the dusk saw a **tawny owl** fly across Law Crescent into the trees and another answered with a 'kee-wick' call. BW.



20th September More **geese** heard flying over Monifieth this morning. The sound of autumn. AR.

24th September Two adult **otters** seen in Forfar Loch not far from the Ranger centre. LW.

27th September Noted four **blackbirds** down Holly Road - possibly migrants. There were none in our garden 21st August until 6th October. DMS.



2nd October On very calm but chilly evening, at around 8 pm, a long series of the 'kee-wick' calls of a lone **tawny owl** could be heard some distance away in the direction of the Tay. Perhaps the bird was in the trees somewhere between Albany Road and the Broughty Ferry Road. JC.

5th October On a warm sunny evening a fresh-looking **red admiral** butterfly was flitting about in the garden and enjoying the sunshine. JC.

8th October At the Eden Estuary I was pleased to see 85 **barnacle geese** (probably on migration to the Solway Firth), a pair of **white-tailed eagles** and a close view of three **goosanders**. BW.

19th October A **small copper butterfly** seen on yellow composite on the duneland at Tentsmuir, south of the car park. GM.

20th October Walking back up from the shops in Broughty Ferry, heard trilling call of **long-tailed tits** in a tree on corner of Gray Street and Camphill Road and counted up to 18 as they flew away. Also two **blue tits** and one **coal tit**. Heading east, I heard four **robins** singing and then saw a **grey squirrel** scamper round the corner into a garden off Castleroy. DMS.

20th October During a fleeting warmish sunny spell, several butterflies were sunning themselves on the highest parts of the front of the house. I think at least one or perhaps two were **red admirals**. JC.

31st October Our security lights on the garage were going on and off. In the past this has been due to **cats** passing by but tonight when I looked out there was a young **fox** apparently feeding on fallen **crab apples**! DMS.

1st November On a sunny morning but with a nip in the air I saw a **red admiral butterfly** flying up the beach at Elliot, at very low level. I wondered whether this was the last of the migrants ashore, or just an individual which had wandered. AR.

1st November While tidying the garden I heard a large bumblebee then saw it land on a hazel leaf - longer slimmer body than 'usual' chunky buff-tailed and I realised it was a queen **garden bumblebee** - don't remember ever seeing this species so late in the year. DMS.

3rd November In the early evening I heard, and could just see in the glow of the streetlights, a large skein of **pink-foot geese** flying low over the city centre, heading south-west presumably to the Tay. I looked up to admire the spectacle but could see that nobody else around had even noticed, let alone paid attention. Perhaps many of them couldn't hear because, as is usual these days, ear-phones were being worn. JC.

9th November At 8.50am, on a dreich morning, at least 30 **goldfinches** were in our neighbours' **birch** tree and 20 or so came down to feed in our garden - hard to count with their to-ing and fro-ing! Then at 11.40 I was delighted to see a handsome orange male **brambling** land in our crabapple tree along with several **chaffinches**. DMS.

18th November In a secluded and quiet corner of Balgay Park I recorded six **fieldfares**, **blackbirds**, **song thrush**, **great tit**, two **great spotted wood peckers**, two **jays**, a **goldcrest**, three **wrens** and a delightful **treecreeper**. BW.

25th November At Boghead farm, by Auchmithie saw a restless flock of over 200 **linnets** mixed with a few **yellowhammers**, **goldfinches** and **tree sparrows** alight in a treetop lit by the setting sun. Then a hunting **kestrel** passed overhead. BW.

29th November Saw four **magpies** together in my garden being mobbed by a **crow**. BB.

30th November Walking through the Scotsraig Estate near Tayport this , I was delighted to see a small flock of **bullfinches** (four pairs), a group of about 12 **long-tailed tits** and I heard two **jays**. BW.

2nd December Saw a lone **dabchick**, (**little grebe**) on and diving into pond 5, the largest pond in Carsegowniemuir Quarry. Almost certainly it was after the numerous **minnows** that thrive in the largest pond. Although the birds have been recorded from the quarry in the past, it's the first I've seen there since 1998. JC.

23rd December About 40 **waxwings** feeding on cotoneaster berries, Johnston Avenue, Dundee. Also a fairly recently-fledged **woodpigeon**, along with five adults. CMcL.



EINSTEIN WAS RIGHT ALL ALONG!

Do you remember the news on February 11th (2016) about the first confirmed discovery of gravitational waves, which had been predicted by Einstein in his Theory of General Relativity a century ago? It was a great scientific sensation; in fact, the discovery was the headline topic in all the news bulletins that night. But I'll bet you didn't also know that Dundee Naturalists' Society was (nearly) involved - although only in an extremely peripheral sense!

In the early 1980s a world-wide search was launched to find suitable areas to build the giant scientific instruments (known as LIGO detectors) with two vacuum-tube 'arms' at right angles, each several kilometres long, needed to detect the exceedingly faint ripples of passing gravity waves. The Americans planned to build a detector in the far north-west of the continent, in Washington State, but began to look for European collaborators. The Germans thought that they might be able to construct one and so did the Italians. In Britain a consortium of Universities investigated the idea and began to look for a suitable location. What was needed was a large and reasonably flat site which was well sheltered, far enough away from large built-up areas, busy traffic and heavy industry so that it would be little disturbed by unwanted vibrations and yet easy to access. Remarkably, after a nation-wide search, the area finally chosen was the depths of Tentsmuir Forest, not far across the Tay from Dundee.

The news was greeted with enthusiasm by some people and appalled others, thinking of the disturbance to the forest, the wildlife and the peace of Tentsmuir. There was a degree of hostile responses from various wildlife groups and other users of the forest. The Nats Council was asked for comments and on their instructions the President, Eileen Kidney, and the Technical Convenor drafted a letter to Fife Council. I'm pleased to report that your Society was positive about the proposal and pointed out that, although there would inevitably be considerable disturbance during the period of construction, once the giant instrument had been built, partly recessed into the ground, there'd be very little disturbance during operation. After all, the whole point about the detection of extremely faint gravity waves was that the LIGO detectors must be as quiet and undisturbed as possible. Furthermore, as was pointed out in the letter, various measures could be taken to reduce the effects of the semi-recessed kilometres-long 'arm tubes' of the detector on the woodland and its visitors, including screening them by judicious tree plantings and by the construction at intervals of suitable crossings for both wildlife and walkers.

In the end, however, it was lack of finance that scuppered the project in Britain - as usual. Wouldn't it have been incredible, though, if there had been a gravity wave detector in Tentsmuir and it had contributed to such a significant discovery?

Jim Cook

MONCRIEFF HILL

28th February

After a week of light frosts and sunny skies the day dawned clear and sunny, yet again. The decision was made that it was too good to stay in the garden, so we set off in the direction of Perth for an exploration of Moncrieff Hill.

The character of the wood was very different from the only other time I had visited - much lighter and brighter with no leaves on the trees and all helped by the bright sunshine. Every bird I recorded at the south (Earn) car park was singing its head off including **robins**, **chaffinches**, **great tits** and a **dunnock** and this continued to be the pattern throughout - they were all thinking about spring. Further on there were **wrens** trilling away and a **song thrush** retreated silently on our approach. **Goldcrests** sang their reeling song in several places.

Near the west end of the hill, where the traffic noise from the motorway becomes noticeable, our attention turned to the flowers. Huge areas of **snowdrops** were at their best and smelt beautifully sweet in the still conditions. While taking the obligatory photographs of such beauty I noticed several **honey bees** with good collections of bright yellow pollen in their 'baskets' and also, somewhat unexpectedly, saw a single **marmalade hoverfly** (*Episyrphus balteatus*) (right) visiting the flowers. In one place there was a scatter of snowdrops



pushing up through the flattened, brown, dead **bracken** which made a very pleasing contrast with the greenish white of the flowers.

At the edge of the track there were a number of flowers on the **gorse** bushes but also, unexpectedly, two flowers showing on a nearby **broom** bush. Far up the slope, under the crags, the **stinking hellebore** flowers were just opening but I didn't risk climbing up for a closer look - binoculars were good enough! High above all this a soaring **raven** was briefly seen through the trees. In sunny spots some **dandelions** were already in full bloom.

On the track back to the car park a **jay** was heard screeching down near the edge of the woodland. The best sighting was saved until last - a party of around eight **long-tailed tits** were flitting through the bare branches of the **ash** trees near the east end. They kept coming back to a particular tree, high above the path. I realised that they were attracted by a sap run which could be seen down a considerable length of the tree trunk. Whether this was still liquid, and quenching their thirst, or sticky and containing trapped insects was impossible to see, but it held the flock in the same area for several minutes instead of the usual steady progress through the wood.

Anne Reid

RHYND TO ELCHO

3rd April

On a Sunday walk, I followed the bank of the upper Tay estuary from Rhynd to Elcho. At Balhepburn Island, just downstream from Elcho, I flushed a mixed flock of about 120 **whooper** and **mute swans** (I think around 50:50 of each species) which were feeding in a cereal field together with a small flock of **Canada geese** and a few **greylags**. Unfortunately I didn't manage to count any of them accurately, so my observation is not much use for either BirdTrack or the Perthshire Bird Report, but I think it's worth mentioning as a site worth checking. Balhepburn Island (no longer a real island since land-claim in the 19th century) is very secluded, most easily reached by walking from Elcho Castle, and none of the birds would have been visible from any public road - few could be seen even from the nearest farm track, so it's probably undercounted.



A less welcome sighting in the tidal marsh some distance downstream near Rhynd was a plant of **American skunk-cabbage** *Lysichiton americanus*. It has been recorded farther upstream on the River Tay, and also the Earn, but this seems to be the first record from the Tay estuary. I could see only one small clump, although the terrain is very difficult to explore. This spectacular but highly invasive non-native species has potential to spread through the marshes and reedbeds wherever there is little seawater influence. It is probably under-recorded, and records of it can be submitted via the Recording Invasive Species Counts (RISC) website:

www.nonnativespecies.org/index.cfm?pageid=234.

Colin McLeod

THE DELIGHTS OF LOCH CRERAN AND DISTRICT

A visit in early May to Loch Creran from Connel Bridge with Alban Houghton, primarily to climb the nearby hills Beinn Sgulaire and Beinn Fhionnlaidh, coincided with remarkably hot sunny weather (24-28°C) and we also took advantage to explore the local nature reserves. The Shian Wood SWT Reserve, situated near the southern shore of Loch Creran's estuary is surrounded by commercial **oyster** beds and is a delightful small reserve with ancient **oak**, **hazel** and **birch** woodland. Soon after parking we noticed the hawk-like shape of a male **cuckoo** that settled on an overhead wire, and then flew over making its evocative call.

The walk through the woodland glades, with few trees yet in leaf, was brightened by carpets of **primroses**, **dog violet**, **wood sorrel**, **wood anemone**, some early **bluebells**, **lesser celandine**,

pignut and **lady's smock**. Many trees were clothed in mosses, ferns and lichens, such as the **tree lungwort** (*Lobaria pulmonaria*). **Willow warblers** were singing everywhere. A **garden warbler**, **chiffchaff**, **song thrush**, **great tit**, **blackcap** and **robin** kept up the spring chorus. The **speckled wood butterfly** was a new species for me, and out on the path back to the car we saw **orange tip** and **green-veined whites**. Another **cuckoo** was spotted later as we drove away.

That afternoon we also visited the small Glasdrum Wood NNR on a steep hillside on the north side of Loch Creran with similar plant species. Again **cuckoos** were calling, and a **great spotted woodpecker** was drumming. A **wood warbler** was seen, resplendent in yellow and green plumage, and **willow warblers**, **chaffinch** and **great tit** were in song. Although we enjoyed seeing more **speckled wood** and **peacock butterflies** we were disappointed not to find the **chequered skipper** for which this site is nationally famous.

Descending from Beinn Sgulaire, Alban almost trod on a female **ptarmigan** on her nest - she was beautifully camouflaged and never moved so we quietly diverted and took care not to step on another one. As we walked back to the car along the road beside the River Creran the **sand martins** were feeding, and a pair of **goosanders** took flight. The following day higher in the glen we saw **wheatear**, **snipe**, **red grouse** and **meadow pipits**, and two **common lizards**. A **green hairstreak**, **peacock** and **orange tip butterflies** were recorded.

The evenings were rather warm so a gentle walk along the estuary of Glen Etive, over Connel Bridge was enjoyable. The impressive Falls of Lora situated below this single-span bridge, a twice-daily tidal race that churns the waters as the tides ebb and flow over an underwater gorge, was rewarding. Along the northern shoreline we found **dunlin**, **ringed plover**, **turnstone**, **pie wagtails**, **cormorant** and **herring gulls**.

Brian Williamson

Two photographs by Alban Houghton, on page 24, illustrate this article. Ed.

SUPER MOON?

14th November

I looked out in the early evening to see if the much-hyped '**super-moon**' was up. It was, and close to the horizon, although there was a thin veil of cloud across the middle. The moon's elliptical orbit was being reported as bringing the 'silvery orb' the closest to the earth that it had been since 1948. It looked bright and large, as expected, but not significantly so. It was supposed to appear 7% larger and 13% brighter but didn't look much different from a normal full moon to me.



Jim Cook

A ROAR OF WINGS

18th November

Small groups had been flying in on curved wings and whiffing down all morning to a stubble field near the north side of Carsegowriemuir Quarry. In the calm air their contented gabbling could be heard as they bent to the grass and, presumably, some spilled grain. Gradually the numbers built up until the whole field seemed occupied. Most were **pinkfeet** but there seemed to be numbers of **greylags** among them. Suddenly, soon after 2pm, a roar of wings and demented cackling marked the flight of what must have been several thousand geese all taking off together. What a magnificent sight and sound! I wondered what had set them off but couldn't see anything obvious. Was it a **fox** or a **dog**, perhaps, or someone walking along the road? The **geese** split up into large groups which circled round a few times and then gradually settled back into the same field. They finally departed gradually in the direction of the Tay estuary as dusk came on at around 4.30 pm.

Jim Cook

RAMBLES WITH STEVIE 2016

First on the scene for 2016 were beautiful examples of, **hair ice**, which only appears on wood which has the fungus *Exidiopsis effusa* growing in it. Conditions must be suitable, with lots of water, high humidity, and temperatures below freezing. Usually rare, I saw this several times at Crombie, where ranger Lisa was delighted to have an ID for it.

Heading to St Cyrus, we watched half a dozen **buzzards** in a field, following a plough. These were mainly youngsters, feeding on **worms** to get them through the winter, while they honed their hunting skills. By contrast, arriving at the reserve, we witnessed a single **buzzard**, in the stiff breeze, attempting to hunt high on the cliffs, but being harried by a cronking **raven**. After having captured side by side images of the battling twosome, I was quite impressed to witness the **buzzard** submitting and gliding to the ground, (however the **raven** did appear to have reinforcements of a large flock of **jackdaws**). Moving to Kinnaber, we then saw a **short-eared owl** being chased firstly by a **carriion crow**, then immediately after, by a **herring gull**.



A **bittern** arrived at Montrose Basin and took up residence on the Salt Pans there for several weeks. What incredible camouflage for such a large bird. It absolutely melted into just a couple of reeds! We saw it in the open on several occasions, always showing itself just as the light was starting to fade, crossing from pool to pool, feeding well on small **fish**.

We were sad to see images of **red squirrels** on Facebook from Balgavies, which were suffering from **squirrel leprosy**, which looks a very painful condition, particularly swelling of

the ears and eyelids. Research on this disease is ongoing on the isolated group on Brownsea Island, Dorset. The colony at Morton Lochs appears to be similarly affected.

I was thrilled to receive a request from BBC asking to use some images of **gold swift moths** from my Flickr stream, on their QI programme. No payment needless to say, but the "fame" of seeing my photos on TV, behind Stephen Fry was sufficient reward!

March 6th provided one of the most memorable Mothers' days ever. First cards and calls from both offspring, followed by Jim and myself having a lovely hike in Glenesk at Loch Lee. A beautiful sunny day, which tempted an **adder** out to bask and which was calm enough to stay put for photos. Satisfyingly tired after our long walk, we were relaxing in the evening until we were alerted to an **aurora** display, dancing in the clear night sky. Having very little light pollution at our back door, both Jim and myself were rather pleased with our photos.

I was dismayed to see at the end of March that the flooded field behind St Vigeans cemetery, the previous efforts to drain it having been unsuccessful, was now being pumped out by machine. The water level was definitely lowering, which was a pity since it was a **heronry** and such a good venue for an assortment of winter waterfowl. Even worse, later in the month, heavy machinery had been drafted in and channels dug, followed by ploughing and planting. The denizens of the heronry had taken to lurking on the slope on the far side.

Early April and we paid a visit to Kirkcaldy harbour to see the pair of **long-tailed ducks** and spent some time observing **eiders** too, swimming close by in the inner and outer harbours, paying us little attention. They dived for **crabs** on the incoming tide, and we marvelled at how highly visible they were, swimming underwater.

Late spring took us with the caravan to Somerset where we spent pleasant hours exploring the many nature reserves of the Somerset Levels, especially Ham Wall, where we enjoyed our first sighting of a **glossy ibis**. Only to receive a bird club text re the visiting **glossy ibis** right on our doorstep at Montrose basin! How ironic. However, the Basin bird lingered until our return and I was able to capture several images. My contact in Somerset reported that their ibis had commenced nest building and calling. Regarding the controversial culling of **badgers**, they seem to be making a pretty good job of it themselves, the roads and lanes being littered with dozens of bodies. They must be extremely common on The Levels for so many to become roadkill.

Friends took us to Westhay Reserve, where we had very close views of **great crested grebes** interacting on the nest and also the beautiful sight of a pair of **swans**, synchronised dancing

in the water. Graham had the presence of mind to set his camera on video and captured most of the display, which we all found quite moving - a poignant moment indeed.

On my wish list for Somerset were **grass snakes** and **bee flies**, both of which were located for me by our friend Steve. I was overjoyed to see and photograph both **dotted** and **dark-edged bee flies**. Local knowledge is hard to beat. On our last day, Steve wanted to show us **common cranes**, the very successful great crane reintroduction project having completed the initial six year phase, with eggs collected annually from Germany and transported to the UK for hatching, rearing and releasing. He was hopeful but not confident as flocks tend to disperse in spring. To our delight, five individuals were feeding in the distance, such stunning majestic birds. Suddenly a flock of 14 flew in, to join the others. As they all came in to land, very clumsily it has to be said, they trumpeted and postured to each other and though we were a distance away, we heard them clearly. 19 birds in total, a spectacle more than any of us could have wished for. After socialising and eating, the majority took off, flying over in front of us. Coincidentally two days after returning home, Countryfile on TV showed two clips from previous episodes featuring the cranes breeding project and also Greylake reserve which we also visited. Greylake is not dog friendly, (in fact, many of the reserves on the Levels are either not dog friendly at all or restricted areas for dogs) so Jim and myself took turns remaining with the whippets. The car park was actually quite productive, the feeders having **reed buntings** on the seeds as well as all the usual wee birds. A **cuckoo** landed in one of the trees above me and I had great fun trying to capture photos of a **rat** family which were scampering out from their log home to snatch a tasty morsel.



We stopped for several days at Bedale, Yorkshire again, to break our journey home. Alone at the lake, I heard the crunch of breaking stems in the thick reeds to my left. I noted the direction, quietly following the reed tips as they moved and matched the pace as something unknown hunted just a matter of feet away from me. The adrenaline was pumping as I struggled to get a glimpse of creature unknown, through the thick vegetation. Tiny warblers singing their hearts out low down out of sight suddenly began appearing at the top of the stems. Two **moorhens** screeched across the path in front of me. My heart was pounding with excitement and still I couldn't see what was causing the disturbance. At last after a good five minutes, a flash of red fur confirmed a **fox**. Heading back to the caravan, a **stoat** popped out from the undergrowth and posed, upright in front of me and made eye contact. It re-appeared within minutes with a baby rabbit clamped in its jaws.

Home again, at Balgavies later that week, we were intrigued to see the **great spotted woodpecker** poking peanuts into a hole in a fencepost. It hammered at them then scooped out the pieces, presumably to take to feed its young. Fascinating behaviour.

Between May/June we visited three breeding seabird colonies for the first time - Isle of May, Fowlsheugh and Troup Head. All impressive reserves which will need returning to.

Then we were off caravanning again, back for our usual visit to Dorset, where a new selection of "wee beasts" showed themselves for observation and photographs, including a very tatty **forester moth** and a jaunt to the coast to find **Lulworth skippers**.



A highlight was a visit to Alners Gorse butterfly reserve, where, as well as a variety of **hairstreaks**, we watched the fascinating courtship display of **silver-washed fritillaries**, where the male flies under the female then up over her back, repeating this constantly until he is accepted. Truly delightful. No photos, as we were too much in awe at the time, enjoying the moment! Pitched up in our usual spot, I baited a tree stump with moth sugar and was pleased to see that I had attracted a couple of **hornets** as well as **red admirals** - which were surprisingly aggressive towards the large wasps.

Nightly visitors to the stump included native **tawny cockroaches**, (above left), harmless forest scavengers and also a **fieldmouse**, licking the droplets with gusto. One downside this year was the

explosion of tiny **ticks** at the campsite lake. I found going about with bare legs the best option as the miniscule bodies were more visible against the skin. On several occasions I found myself removing a couple of dozen. I don't like to use repellent as the whole point of visiting Dorset for me, is to get closer to insect species we don't see here, so I really don't want to be repelling anything else!

We returned from Dorset in time for the outing with The Nats to Burn o'Vat, which turned into a fabulous fungal foray for a couple of us. A wild **gooseberry** bush was discovered and shared eagerly by several Nats who made short work of the exquisite fruit. Regrouping outside the visitor centre, I was excited to share a **bee beetle**, found by Cathy Caudwell. An insect I had longed to see for some time, supremely hairy.

I enjoyed a Photography Club trip to Bell Rock Lighthouse, 12 miles off the coast of Arbroath, where we also photographed **grey seals**, hauled out on the rocks. Having vaguely known that they will respond to singing and egged on by the other club members, I offered a few tuneful warbles(?). As someone who can't sing I was quite encouraged by the response!

Driving to Backwater Dam we encountered a juvenile **mute swan**, stranded on the road, pacing along the fence. Jim, ever my hero, drew into the verge and after throwing his jacket over it, lifted it across the fence to make its way back down to the water.

Late December and I was thrilled to spot a **fox** hunting in the horse field behind our house. Camera in hand, I hurried up the farm road and hid behind a large fencepost. As it followed the fence round I realised it was going to pop out right in front of me. It must have been aware of me as it appeared only 12 feet away and the wind was blowing from my direction towards it. Nevertheless, though it pricked its ears at the sound of my camera shutter, it carried on regardless, catching and eating three **rats** in the 20 minutes I watched it, before it disappeared into the undergrowth of a neighbouring field.



On the very last day of 2016, I spotted a **chanterelle mushroom**, gleaming golden in the grass. Enough to uplift the spirits at this gloomy time of year.

So, let's see what 2017 has in store for us! Until next time then.....

Stevie Smith

All photographs in this account are Stevie's own. Ed.