

# Dundee Naturalists' Society

Instituted 1874



## Bulletin No 43 2018

# **DUNDEE NATURALISTS' SOCIETY**

## **ANNUAL BULLETIN No 43**

### **2018**

Hon President:	Dr Gordon Corbet
Hon Vice Presidents:	Mr Bede Pounder Mr Richard Brinklow Mr Brian Allan Miss Dorothy Fyffe
President:	Mr David Lampard
Vice Presidents:	Mr Barry Caudwell Mr Colin McLeod
Hon Secretary, Membership Secretary, acting Treasurer:	Mrs Lorna Ward, 30 Portree Avenue, Broughty Ferry, Dundee. DD5 3EQ (01382 779939)
Excursion Secretary:	Mr Davie Stein, 13, Livingstone Place, Dundee. DD3 8RL (01382 816863)
Bulletin Editor:	Mrs Anne Reid, 2 East Navarre Street, Monifieth, Dundee. DD5 4QS (01382 532486) email: acmc.reid@virgin.net

### **CONTENTS**

Society Reports:	Page 2
Obituaries:	Page 5
Winter Meetings 2018:	Page 8
Summer Outings 2018:	Page 13 and page 26
Photographs	Page 24
Autumn Meetings 2018:	Page 26
Members' Articles:	Page 32

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, Mary Reid, Bede Pounder 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 Colin Reid, 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](http://www.dundeenats.org.uk) . Facebook page: Dundee Naturalists' Society

Anne Reid

## SOCIETY REPORTS

### PRESIDENT'S REPORT

The Society has had a successful year. There were 14 outings during the summer, nine Saturday or weekday trips and five on Tuesday evenings along with a winter Saturday morning outing to St Andrews and the New Year barbecue at Crombie Country Park. This was well attended on a crisp but dry winter's day. A March outing to St Vigeans will get the summer season off to a good start.

The summer programme started with a modified walk from Dalgety Bay to Aberdour, followed by walks from Gourdon to Johnshaven; Blairgowrie and the River Erich; the Isle of May; Linn of Dee and Mar Lodge; Lomond Hills, Fife; Barry Buddon; Musselburgh to Cockenzie; the fungal foray at Den of Alyth and a winter outing to the Bell Pettigrew museum, St. Andrews. Thanks to Kati for organising the Isle of May outing. The annual weekend to Elgin was well run and well attended. Thanks to Lorna and David for organising the walks. The forthcoming 2019 weekend will be to Dumfries.

Unfortunately numbers on Saturday trips are still low and these are running at a loss. This is a shame as the outings we had over the summer were varied and interesting with much to see and catering for all abilities. The company was excellent and we saw some fascinating wildlife. 2018 was one of the best summers for weather we have had for a while. Council have decided that the outings are very important to the Society and will subsidise them to continue, if necessary.

Evening outings included Wormit to Balmerino, Ninewells arboretum, Camperdown Park, Carnoustie coast, Auchterhouse Railway Path and the Carsegowriemuir BBQ. Again two outings were held in partnership with the Botanical Society of Scotland as part of the urban plant recording project, and we have now contributed a number of meetings for this. In addition there was a training workshop for bryophytes held at the McManus collections unit organised by Brian Ballinger which was fully booked.

Some highlights of the year were unusual beach strandings. In March an adult **sperm whale** stranded at Barry Buddon (right), and in November a **minke whale** stranded at Lunan Bay while a female **basking shark** stranded near Easthaven.



The winter programme had 11 talks which were varied, entertaining and informative; we were fortunate in having some very entertaining and unusual speakers. Calum McAndrew's talk on dinosaur modelling accompanied by models and puppets was the most fun this year. Similarly the dark world of rhododendron hybridisation kept us all enthralled and another highlight was a talk on butterflies. The photos taken by our members entertained us in January. Accounts of all these activities will be found elsewhere in the Bulletin.

Council has held 4 committee meetings over the last session. As well as planning our regular outings and meetings, we discussed the future of the quarry, and the recording group is off to a good start. We completed another moth trapping session at Murton as well as an initial visit to Guardswell farm, with plans in hand by Barry Caudwell to get involved in more survey work here. We had our usual stall at the flower and food festival to raise our profile and our thanks go to Lorna for organising our stand. We are still looking for ways to attract new members and this will include taking part in bioblitzes and open days and again attending the flower and food festival. Although the society actually runs at a small loss the increase in membership fees should enable us to manage for the next few years and it should not be necessary to increase subscriptions for a few years.

Jim Cook is convener of the Carsegowriemuir Quarry subcommittee and has developed a ten year plan for its management. This year the Society managed to obtain a drone, for free, thanks to Anne and Colin Reid and the University, to capture a series of high resolution aerial photographs of the quarry.

For any of these subcommittees and the general running of the society we are looking for volunteers and committee members to represent the views of the members. If anyone is interested in helping with outings then your help would be much appreciated. Kati has agreed to take over the organisation of coach outings as Davie Stein has stood down after an exemplary number of years carrying out this unsung but important job. We thank Davie for all his hard work.

We have been saddened by the sudden death of Gordon Maxwell just before Christmas. Gordon was a long-standing member of the Nats and a very knowledgeable local naturalist. A full obituary appears on page 6.

David Lampard

## CARSEGOWNIEMUIR QUARRY REPORT

The year began as 2017 had ended: very slowly, with the long spell of freezing weather halting any work or even visits. The melting snow plus heavy rain in early March flooded the quarry deep enough, as the Youngs reported, to cover the barbecue plinth completely with more than a foot or so of water. The water level must have been up by nearly 6 feet. Just as well we'd moved the picnic tables up to a sheltered spot on high ground in the autumn! The flood didn't completely recede until the middle of April.

The early visits to the quarry were taken up with checking over the trees, freeing some of the larger ones that were straining against their wire netting tubes and laying down more of Ronnie Ogg's large squares of matting around small trees that had been planted within the last few years. We planted only three new hollies in the spring and moved a few of the numerous self-sown small **hawthorns**, **hazels**, **blackthorns** and, especially, **geans**. A considerable length of time was spent during the summer carrying out a full census of all the trees that had been planted in the quarry by mapping and counting them. It was a long and rather tedious job that hadn't been carried out for a number of years but very necessary at this stage to calculate the number of living trees for the end report of the 30-year Quarry Project. The total, when it eventually arrived, was just over 1,100 living trees in the quarry, 1,114 to be precise. What was disappointing, although expected, was that the results showed all too clearly the ravages of ash die-back disease, with all the **ash** saplings planted in the few years before 2014 now dead and numbers of our larger and older planted ash either clearly stressed or even dying. Even worse is that many of the large original ash trees are also showing reduced numbers of leaves, dead branches higher up and other signs of stress.

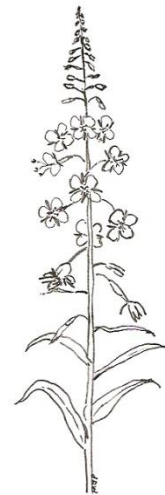
In early July, through contacts at the University of Dundee arranged by Anne and Colin Reid, we were fortunate to be able to obtain the services of Tracey Dixon and the photographic drone she operates. On a bright and fairly calm day she came along with her research student Ailsa Guild as assistant. During a long session in the morning they were able to fly the drone high over the southern edge of the quarry and obtain a number of excellent images (see page 24). Tracey then suggested using a feature of the drone and its software to fly the drone in a zigzag pattern along the length of the quarry. The software later allowed the images to be stitched together to form a single high-resolution overhead image of the whole site. Finally, we talked several possibilities over and Tracey decided that she would like to try flying the drone along the main path to the hide, all the while taking a video of the route as if walking along. Later Tracey sent us a file of the images and all turned out to give an excellent idea of the current shape of the quarry and the state of its vegetation.

By then the **willowherb** was growing strongly, despite the very dry spell of weather, and the grass along the paths was getting rather long. It was time to start cutting. The brasher was brought into action and the first day was spent clearing the first stretch of the main path up towards the hide. Another day was spent clearing the newer paths that were still infested with the tough stalks of rosebay willowherb. The brasher, however, was having trouble with cutting through the long, dry and very tough grasses along the paths and over the plateau and we were fortunate to be able to obtain a special trimmer head for the machine. It worked a treat and helped to clear the rest of the path network at record speed.

During the summer we gradually assembled numbers of plastic bread-trays and sheets and assorted pieces of expanded polystyrene at the cottage. Many thanks to Ronnie Ogg and Dorothy Fyffe, in particular, but also to everyone else who contributed. The trays were assembled into a raft supported on expanded polystyrene floats and covered over with capillary matting. It was disguised with tufts of grass and other vegetation and floated out onto pond 3 below the hide to form a raft that would, we hope, attract moorhens and ducks and similar water birds - 2019 will be the test. In mid August we were fortunate to be able to hold our annual summer barbecue in the quarry on an excellent evening and, after the food, were able to launch the raft with the help of several of the revellers. (See report on page 22. Ed)

Later in the summer, two of the shorter rough sections towards the far end of the main path were smoothed out and made easier to walk along. Equally important, they will be much easier to clear of grass in the future with the brasher.

Another important task carried out, with the help of Jackie Mackay, was to clear some of the dense clumps of **blanket-weed** (a form of filamentous algae), which formed an almost complete cover over pond 5, from the southern edge. We were able to separate out some 15 to 20 or even more small newts from the dense strands of algae in the shallow water near the edge and gently returned to the water, along with an interesting array of other pond life. It is good to know that a healthy newt population



is present in pond 5 at least. A few weeks later Sue Becker and Steve Davies came along to help us. Sue was able to use her old wet suit and with a body board and rake contraption rigged up by Steve did a fantastic job in pushing the dense cover of blanket-weed to the south side of the pond. While she was in the water, Jackie, Steve and Jim raked the weed in to the edge, where wildlife trapped in it would have a chance to escape before it dried out. They came along a couple more times later to finish the job - and didn't the pond look greatly improved, with light being able to reach deep down into the water once again!

In September, several sessions were spent digging holes ready for planting trees. The planting day itself on Saturday 20th October was fine and dry and we managed to plant three hazels and a rowan before the barbecue and then another four trees afterwards. (See report on page 27. Ed) In the next few weeks Jackie Mackay helped with the planting of another ten young trees, including five of the **pin**es donated by Eric Hamilton and Alison Abercrombie at the Flower Show, to give the creditable total of 18 this autumn. All four of the hazels planted and three of the hawthorns were self-sown tree seedlings from the quarry itself. (Later, several more young self-sown trees were dug up carefully and potted ready for next year.) The rest of the trees put in during the autumn season were a mixture of young **oaks**, **rowans**, a **birch** and a **hawthorn**. Just before the winter really set in, we spent some time removing more protruding stones along the paths and further levelling and smoothing out surfaces at the western end of the quarry. In late November a spell of heavy rain led to the quarry flooding to a depth of 5 or 6 feet above the summer low. Just as well we'd moved those picnic tables back up to high ground!

Jim Cook

## RECORDING CONVENOR'S REPORT

2018 has seen the continuation of some events that have now become annual. These involve a group of people collaborating from a number of different organisations. Working with other groups has a number of advantages, not the least it increases the expertise substantially, and it is also more fun. The project that has been running longest is a moth recording project in Corrie Fee. The data that is collected here is used by SNH in managing the National Nature Reserve.

A more recent moth project that has only been running for a couple of years is at Murton Farm Park, just to the east of Forfar. This year we recorded several specimens of *Caryocolum fraternella*, which is a micro moth species that had previously only been found as far North as the Lothians. Its distribution is described as local to locally common over much of England, particularly in the south and south-east, and areas of south-east Wales. This year's record from Murton has substantially extended its range northward. We now need to go back and do a botanical survey looking for the larval food plants which are **stitchwort** (*Stellaria* sp.) and **common mouse-ear** (*Cerastium fontanum*); the larvae feed on the terminal shoots. This could be a site for an evening field trip - any volunteers?

As a recce for another summer trip, a small recording group spent an evening at Guardswell Farm in the Sidlaws. Two moth traps were put out the previous night, and we did a walk around part of the farm recording birds, insects, plants etc as we walked. A tree and a **dock** are worth special mention here. The tree is an **ash** (*Fraxinus excelsior*) and the **dock** is **monk's rhubarb** (*Rumex pseudoalpinus*).

The ash was of interest because it had been coppiced many years ago and the dock is an introduced plant that is a relic naturalised plant of old cultivation. Guardswell is next door to the abandoned medieval village of Pitmiddle. On this visit having an archaeological hat is very useful! These records have started a Guardswell records database, which I hope will continue to grow each year as has happened for the other sites. What adds value to biological recording is visiting a site many times, the more the better and at different times of year.

Several of the evening field meetings have specifically targeted



recording for the Botanical Society of Scotland's Urban Flora project, under Brian Ballinger's expert guiding hand. This is another nationally organized project well worth becoming involved in.

Lots of Nats record birds as part of a number of national surveys. Two of the BTO organised ones the "Wetland Birds Survey" and the "Garden Birdwatch" are long running surveys. In addition to these formal surveys each field trip has its birders producing a bird list for adding into the BTO Birdtrack.

This coming season do come and join us in recording what we see, it's fun.

Barry Caudwell

See article on Recording Strategies on page 41.

## **OBITUARIES**

We have been saddened by the loss of a number of notable Society members this past year.

NORAH (PADDY) McFARLANE  
22nd May 1938 - 22nd January 2018

Paddy, as we all knew her, came over from Northern Ireland with her family to Dundee as a child. After she left Morgan Academy she studied biochemistry at St Andrews University.

My husband Peter and Angus, Paddy's intended, worked in the same department at "Bell Street Tech". It was Paddy who introduced us to the Scottish Country Dance scene.

At their wedding in the Methodist Church, Ward Road, the Minister not only came to the reception but made a speech. We had an uncomfortable moment when he announced he was going to speak about "incompatibility" but joined in the laughter when he said that all would be well if Angus provided the income and Paddy the patability.

Paddy was a long standing member of the Nats having been out with them in her youth and she was a staunch member of the Methodist Church where she both taught Sunday School and ran the Knitting Meeting for those with learning difficulties.

Life is not fair. Her illness though terminal was fortunately brief. She will be sadly missed by the Nats, her many friends and relations and all those she helped.

Margaret Bainbridge

ANGUS MCFARLANE  
Died 13th November 2018

I met Angus when I joined the staff of the department of electrical engineering at Dundee Institute of Art and Technology, now Abertay University. He had studied Electrical Engineering at Queens College, Dundee, which was then part of the University of St Andrews, now the University of Dundee. After his National Service in the Royal Navy he obtained employment with Ferranti in Edinburgh before returning to Dundee.

Learning of our interest in Scottish Country Dancing, he and Paddy introduced us to the various classes in Dundee and regular supper dances in and around the city. Dancing was only one of his interests, which included music and for many years he was the organist at the graduation ceremony for the Institute held in the Caird Hall. There cannot be many organists who have an organ in their front room.

A very keen, self-taught gardener he would freely give advice when asked. I remember banana plants with bananas growing in his conservatory. He was a member of the National Trust for Scotland, Historic Scotland and Dundee Naturalists' Society, where he attended lectures, went on bus trips and the annual long weekend further afield.

He was a valued friend prepared to help others and take on tasks covering a wide range with the minimum of fuss. He will be missed particular by members of the Dundee Nats.

Peter Bainbridge

JEAN POLLARD  
1923 - 2018

Jean was born in India, in Calcutta, where her parents were part of the jute manufacturing community. Her mother died and she was brought to live with her grandparents in Broughty Ferry. Her father remarried and Jean grew up with her new family, two younger sisters, in Broughty Ferry. As a result she was a fiercely loyal Dundonian.

Early in WW2 she joined the WRENS and was posted to South Africa. There she met and married her husband who, after the war, managed a cattle ranch in Argentina, and, later, moved to Africa for similar work.

Life changed and Jean and her three daughters returned to Dundee where she became a teacher of children with special needs.

Jean's interests were many and varied, local history, genealogy, gardening, music, learning Spanish - she won her gold Discovery Award - and hillwalking. This latter brought her to the Dundee Naturalists which she embraced with enthusiasm. She contributed much to the Society, was Nats Secretary for a while and greatly enjoyed the meetings, outings and weekends over many years. She loved to travel and took every opportunity to visit new places at home and abroad.

Jean was an avid letter-writer and kept in touch with her many friends and family scattered all over the world. Her last few years were spent in a care home where Jean was still active and kept up to date with news of the Nats, with world and local affairs and enjoyed receiving many visitors.

Marjory Tennant

DORIS MALCOLM

Doris passed away on 31st March 2018, suddenly and unexpectedly. She had been a member of Dundee Naturalists' Society for many years and attended the meetings and outings regularly until recently, but her great love was birds. She had long been a supporter of the Royal Society for the Protection of Birds, serving many years on the local committee and also held the post of treasurer of the Angus and Dundee Bird Club for some time.

On retiring from office work in 1990 she thought she would treat herself to a proper birding holiday. Having been many times to Europe she decided that somewhere further afield was in order. So off she went to Argentina where her eyes were opened to the exotic birds of South America. Thus began many intrepid birding trips to Africa, Asia, Australia and North and South America, many with a friend or a small group. She had a very impressive life bird list!

Although she delighted in finding all the exotic birds she still found great enjoyment in feeding the birds that came to her small garden every day. They will miss her, as do I.

Dorothy Fyffe

GORDON MAXWELL  
November 1935 - December 2018

Born and brought up in Dundee, Gordon spent all his working life as a typesetter, in the advertising department of The Courier newspaper. After production was computerised he took early retirement and it was at this point that he joined the Nats in the late 1980s.

In his youth Gordon was a keen cyclist, taking part in many races and time trials and sometimes covering great distances in a day. While on National Service with the RAF in Hong Kong, he was part of the RAF cycling team there. It was through cycling that he met Davie Stein and, though originally in different clubs, these amalgamated to become the Dundee Wheelers of which he remained a member, and served as their chairman for a spell.

Through his cycling, and also hillwalking with a group from The Courier, Gordon knew much of Scotland (and its pubs) very well which stood him in good stead when he joined the Nats. He was an excellent naturalist, especially in entomology and fungi, and a keen observer. He would spot things

which everyone else had walked past, and be able to provide a name and, often, interesting additional information.

His expertise in fungal identification made him much sought-after as a leader of fungal forays for the Nats and other groups. He recorded the uncommon fungus **old man of the woods** near Dunkeld and, after researches, discovered that it was a species which Beatrix Potter had also recorded nearby a century earlier when she was recording and painting fungi. Another series of notable finds in that area were of **death cap**, which he sent to Roy Watling in Edinburgh for confirmation. Other favourite haunts included Tentsmuir Forest and the Sidlaw hills, both of which he roamed at all times of the year, finding much of natural history interest.

Perhaps the most unusual and notable record was made while on an outing to Earlshall Muir at Tentsmuir Forest with Davie Stein in 2010. His keen eyes spotted an unusual insect which turned out to be a **short-winged conehead** (*Conocephalus dorsalis*). This rarity was unknown so far north, its previous limits being south of a line from the Humber to Morecambe Bay, and an article on the find was published in British Wildlife magazine with Davie's photograph of the beast. An attempt to re-find the species the following year was, sadly, unsuccessful.

It became a regular occurrence that on Sundays in the late 80s and early 90s, Gordon would go out with Davie, Doug Palmer and Jim Cook to a local place of natural history interest, sometimes joined by others. These particular four became known as the 'old codgers' (in some circles) but they always had interesting days out. These outings, and others, produced many local records of interest and Gordon was a regular contributor to the 'Interesting Sightings' section of the Bulletin and would also write articles, and even draw fungi, when requested to do so. He led many Nats outings over a number of years and took us on walks in out of the way places which were new to many.

One of Gordon's other interests was in photography and cameras. Though he never got to grips with digital technology he continued to use some of his slides in lectures and at Members' Night to the Nats until relatively recently (sometimes scanned for digital projection after old-fashioned slide projectors were no longer available at the University).

Having served a nine year term as Nats Vice-President (the usual is six years), Gordon served as our President from 2002 to 2005 and was fully involved in all Nats activities. Gordon was an excellent, observant naturalist and his expertise and friendly company will be very much missed by all of us on outings and at lectures.

Davie Stein and Anne Reid

Some years ago now Gordon, Doug Palmer, Davie Stein and I would often go out together on a Sunday. I have a particularly fond memory of one such outing, to Kinnordy Loch. We were in the hide, binocs trained, on the lookout for buntings and warblers, when the conversation turned to - of all things - ironing. The information which emerged was as surprising as it was hilarious, and Gordon rounded off the subject with this gem:- "Well I dae a' mine once a year, whither it needs it or no". It was announced with all due seriousness of tone, very typical of Gordon's wry humour. There really was no way of following that.

On a loftier note, Gordon will be remembered as a valued member of the Nats, past President, keen photographer, stalwart leader of fungus forays - and much more.

Shelagh Gardiner

In the late 1990s Gordon found a good-quality pair of compact binoculars on the Sidlaws at Balkello. He duly handed them in to the police, as you could in those days, and waited to see if anyone claimed them. After the statutory six months the unclaimed bins became Gordon's. He had no need of an extra pair so very kindly offered them to my two girls (then aged around 10) who gladly accepted. Mary has 'Gordon's binoculars' still - a permanent reminder of his kindness.

Anne Reid

We also record the deaths of former Nats members Monica Edwards, in April 2018 and Irene (Rene) Cameron in September 2018.

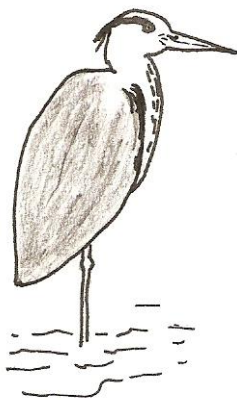


## WINTER MEETINGS RIVERSIDE NATURE PARK

2nd January

Our New Year barbecue has not always been blessed with good weather in recent years and the forecast suggested that this one might turn out wet by late morning. Around 20 members appeared at 10.30, with Jenny Allan early enough to hand out mulled wine to everyone as they arrived. It was suggested that starting out on the walk before the rain arrived would be sensible, so Lorna led everyone off to explore the paths, the hide and views over Invergowrie Bay. As soon as all was quiet a **great spotted woodpecker** visited the trees behind the car park.

Meanwhile, Anne and Cathy set up the barbecue and got it lit and going with little difficulty. The large, plastic table had just been erected nearby when it clearly showed the first spots of rain at 11.15, much as predicted on the forecast. The golf umbrella, brought for the purpose, was swiftly deployed over the barbecue and remained in situ for the rest of the morning, held in turns by Anne, Barry, Cathy and Liz. Thankfully there was little wind, but the odd drop of rain which did hit the hot charcoal gave up a small puff of ash.



All had been sent to search for plants in flower, to add to the BSBI New Year Plant Hunt. The final list was seven species - not bad after several very hard frosts - and comprised; **groundsel** (*Senecio vulgaris*), **chickweed** (*Stellaria media*), **white dead nettle** (*Lamium album*), **gorse** (*Ulex europaeus*), **hazel** (*Corylus avellana*), **bramble** (*Rubus fruticosus* agg) and **hedge bedstraw** (*Galium album*).

The most interesting birds were seen in the corner of Invergowrie Bay with a **heron** at the mouth of the burn and **teal**, **redshank** and various **gulls**. By the time Anne went for a walk, after everyone else had left, the tide was high and many of the **redshanks** were on the grass beside the frozen pond in the field with a small group of **dunlin** amongst them.

Nobody was tempted to linger once food had been cooked and eaten so we were all earlier home than some years. Despite the rain everyone seemed to have enjoyed themselves, and plenty of natural history was recorded.

Anne Reid

## CAMPERDOWN WILDLIFE PARK AND SPECIES CONSERVATION

Bradly Yule - 9th January

It was a great way to begin the year, with a fascinating and informative talk from Bradly Yule, the Conservation Network Manager at Camperdown Wildlife Park. He began by outlining the history of animal keeping in this country, starting with private (usually royal) animal collections, followed in the 18th and 19th centuries by a variety of 'animal shows'. Eventually these trends gave rise to the Royal Zoological Society and London Zoo. This august institution was founded by, among others, Sir Stamford Raffles (who, as a colonial administrator, chose the site of the strategic shipping entrepôt and colony of Singapore), on strict scientific principles and opened in 1848, breaking new ground with the world's first reptile house and the first public aquarium. Even then there was still a considerable element of animal-show activities, including the chimps' tea party, rides on an elephant, particularly the world-famous 'Jumbo', the penguin parade and similar events and not much conservation work going on. Some of these shows still continued long after but most had disappeared by the 1980s. By then, however, the idea of modern zoos as centres for conservation, education and learning had become dominant.

Bradly continued to describe Camperdown Wildlife Centre and his work there, as part of the programmes of BIAZA, the British and Irish Association of Zoos and Aquariums, and WAZA, the World Association of Zoos and Aquariums. As he pointed out, the International Union for the Conservation of Nature, the IUCN, have promoted the message that the world is in the middle of the sixth great extinction of life on earth, caused largely by the vastly destructive effects of modern humans on the earth. Even worse is the fact that many people seem oblivious of this fact and rates of destruction are continuing

and even increasing. Our speaker agreed with the IUCN video that "We are failing to get the (conservation) message across".

Camperdown's work towards this goal include formal, in the classroom, and informal learning programmes with groups and the general public at the Wildlife Centre. Non-formal learning experiences with individual animal exhibits also occur. Camperdown is increasing conservation learning with their charges, enrichment activities for both the animals and human visitors, for example cutting up fruit for the **marmosets** and putting it into plastic pipes with holes that the animals have to work how out to extract.

Another aspect is that Camperdown is running a series of conservation studies, as part of the work of the European Association of Zoos and Aquariums, EAZA, including collecting information on their **Bali starlings**, **black lemurs** and **Vietnamese pheasants**. Our speaker said they also support and run several field conservation projects on **eagles**, **ospreys** and on the **bearded reedlings (bearded tits)** in the Tay reed beds. As Bradly said "We need to 'Grab that Gap'" and really commit to conservation. He finished by briefly outlining the decisions by which animals are chosen for keeping at Camperdown. It was a most interesting and informative evening and was rewarded by a generous round of applause after the vote of thanks.

Jim Cook

## MEMBERS' NIGHT

23rd January

Slides submitted by members had been compiled into a single presentation by Brian Allan to ensure the smooth running of the evening. As usual there was a great diversity in the topics covered and everyone enjoyed the variety of the subjects. Slides shown included:

Brian Ballinger - 2017 Report Everything from Nats on outings, a **magpie** eating **frogs** in the garden and the Urban Flora Project to birds, plants and animals on holidays in Sicily and Greece.

Alban Houghton - Perth and South-West Australia A selection of exotic-looking plants from various sites in western Australia with equally exotic names such as **kangaroo paw**, **qualup bell**, **wreath flower** and **banksia**. A beautiful selection of the 200 **orchids** native to the region were also shown. (Alban's photos were presented by Brian Allan as Alban and Liz had got a late cancellation on a holiday and were away, at two weeks notice.)

Brian Allan - The Outer Hebrides 2017 Beautiful tropical-looking beaches in brilliant sunshine, Dun Carloway broch and a selection of the **orchids** (of course!) special to the islands including *Dactylorhiza maculata*, *D. fuchsii* ssp *hebridensis*, *D. incarnata* ssp *coccinea*, *D. ebudensis* and *D. viridis*.

Kati Smith - Alaskan Adventure A trip through some of the wilder parts of Alaska showing autumnal scenery, glaciers and waterfalls with the paddle steamer and seaplane used to get about.

Jim Cook - The Plinth A photographic record of the building of a barbecue plinth at the quarry, from stone gathered within the quarry. The considerable effort involved in moving very heavy stones was evident and the result was highly suitable for supporting a barbecue. The inaugural use and tree-planting day was also recorded. (Photo, right, Jim Cook)

Anne Reid - Barbecues and Floods More photographs of the inaugural barbecue on the quarry plinth and of the tree planting. A record of the 2018 New Year barbecue when it was necessary to hold an umbrella over the cooking and everyone looked rather damp, and floods on the River South Esk compared with the normal water level.

Wendy Irons - Birds and Butterflies A selection of birds including a **barred warbler** near Fife Ness, a **white-fronted tern** in New Zealand and a **red-tailed hawk** in Central Park, New York followed by a **monarch butterfly**, also in New York in October, an **American lady butterfly** and a **banded demoiselle** in southern England.



Davie Stein - More Bugs, Birds and the Odd Mammal A **green hairstreak** butterfly at Falkland and a **puss moth** caterpillar near Tullybaccart, **greylag geese**, a **great tit** and **lesser black-backed gull**, then **toads**, a **dolphin** and a **hedgehog**.

Richard Brinklow - Bhutan Taster A visit in June/July was bad for weather but good for flowers with everything dripping from the **monsoon**. A range of special alpine plants including *Primula* spp and *Androsace* spp along with *Meconopsis paniculata*, *Lilium nanum* and the very tiny **orchid** *Corybas himalaicus*.

Barry Caudwell - Birds Comparative descriptions of **greenfinch** and **siskin** as an identification exercise. Ringing a bird makes it an identifiable individual. Ringing recoveries of **siskins** ringed at Abernethy show the distances travelled and the relatively short time, about three weeks, taken for one bird to reach southern Norway.

At the end of the presentation Brian was warmly thanked by all present for his considerable efforts, both this year and for many years in the past, as he is handing over the organisation of the evening to Anne Reid next year.

Anne Reid

## THE REDGORTON WOODS OF THOMAS GRAHAM, LORD LYNEDOCH

Alistair Godfrey - 13th February  
Joint with Botanical Society of Scotland

Alistair Godfrey, Chairman of the Botanical Section of the Perthshire Society of Natural Science and Botanical Recorder for Mid-Perthshire for the Botanical Society of Britain and Ireland, gave a talk describing his studies of his local woodlands near Perth. For 25 years he had driven past the Redgorton Woods but more recently embarked on a detailed historical and ecological study of them.

These woods had been planted over an area of around 800 acres in the 18th and 19th centuries. Thomas Graham, who was born in 1748 and became Laird of Balgowan and Redgorton at the early age of 19, played a major part in this development. Planting was also continued by his heirs after his death to the end of the 19th century and was preceded by planting in the first half of the 18th century by other members of the Graham family. Old documents and maps provided valuable information.

Planting was intended to provide ornament and utility and there was also some land "improvement" with the draining of marshes, but some wetland survived. Several tree nurseries were established on the estate. **Scots pine** ("fir") was often used as a nurse tree and was succeeded by broadleaves, particularly **pedunculate oak** (*Quercus robur*) with some **sessile oak** and their **hybrid**, but also **hazel**, **ash** and **aspen**. Where **oak** has been removed, **birch** (*Betula pubescens*) often replaces it as a dominant, establishing thickets at first that discourage browsing.

The presence of **bracken** (*Pteridium aquilinum*) in some places helps to keep excessive grass growth under control, benefitting some herbs. Alistair studied plant distribution and plant communities in different parts of the wood using the National Vegetation Classification.



The ground flora is interesting and diverse and 58% of the Scottish ancient woodland indicator species are present. **Chickweed wintergreen** (*Trientalis europaea*), **bluebells** (*Hyacinthoides non-scripta*) and **wood anemone** (*Anemone nemorosa*) (left) are to be seen. **Common wintergreen** (*Pyrola minor*), which is scarce in this area, is present and, by the river, the scarce **yellow star of Bethlehem** (*Gagea lutea*) has been found. Interesting bryophytes, including the **moss** *Ptilium crista-castrensis* and the **liverwort** *Nowellia curvifolia*, are present.

Other wildlife includes a population of **red squirrels**, and some **roe deer**.

This study shows what is possible in the investigation of the history and biodiversity of a local site and could be very usefully repeated elsewhere.

Brian Ballinger

## SOCIAL EVENING

16th February

The Social Evening was held in the Queen's Hotel again this year. Of the 28 people who bought tickets, 27 attended. The venue, the Montrose suite, was very good and quite spacious. The buffet was delicious, plenty of stovies, cold meats and salads, but we could have done with another dish of vegetable goulash. There were scrumptious strawberry and chocolate gateaux to follow.

Anne Reid produced some excellent quizzes, identifying flowers and animals from pictures and solving some taxing anagrams of bird and animal names. Mike Sedakat's quizzes were quite tricky, especially identifying names of famous Scottish naturalists. Many of us got only one right: John Muir! There were some good raffle prizes, but not quite enough this year. We must remember to remind people to bring a raffle prize along next year, when we sell the tickets.

On the whole, the evening went very well, and everyone enjoyed themselves.

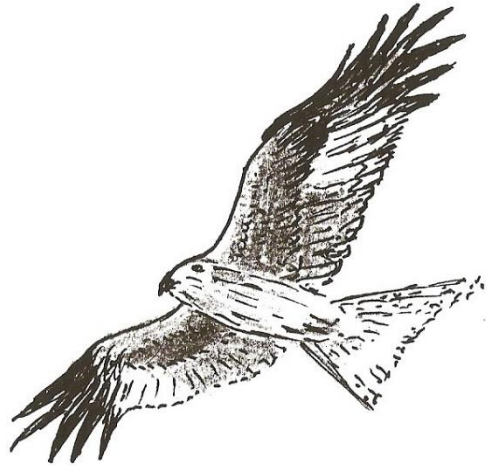
Kati Smith

## RED KITES

Jenny Weston - 23rd February

The weather on the day was horrendous! Snow storms from the appropriately named 'Beast from the East' and the terrible traffic problems it caused may have kept a lot of otherwise hardy Nats away from what was a really fascinating talk about one of our most charismatic birds of prey. Jenny Weston from RSPB Scotland gave us a talk about red kite conservation, with lots of excellent photographs.

The **red kite** (*Milvus milvus*) is a medium-sized raptor with longer wings than a **common buzzard** but with a much lighter build. They can have a five foot wingspan and weigh about 1.5kg. They have deeply forked tails, are extremely manoeuvrable when airborne and have a reddish plumage with a distinctive grey head. They do catch live prey such as rodents, small birds and even worms, but their favourite food source is what they can scavenge. This has traditionally put them into conflict with farmers who believe that the kites have overpowered full-grown sheep to gorge on! Kites are extra vulnerable to poisoning because of this fondness of scavenging; a poisoned carcass can kill a kite as surely as bullet. This species of kite is a largely European bird, unlike the **black kite** (*Milvus migrans*) which can be found over much of the Old World. This means that any breeding success for the red kite is very important indeed!



The project spanning 2007-2009 was to reintroduce the red kite to Aberdeenshire and to use modern high tech equipment to monitor the movement of the kites, and their nests. Historically, the red kite was widespread throughout the British Isles (even being mentioned in a Shakespeare play) but intense human persecution, from egg-collecting to poisoning, reduced their distribution to a small population in Mid-Wales. These kites were unlikely to recolonise the rest of the country on their own so they needed help. There is a lot of evidence to support the idea that the red kite was native to Aberdeenshire and that the habitat is still suitable. (Buzzards are doing well in the area and they have a similar niche). The birds selected to bring back were not Welsh birds, but kites from Sweden. As with so many other species, the kites from Scandinavia are thought to resemble those from Britain the most, at least when compared to other parts of mainland Europe.

The aims of the project were:

- To establish a breeding population in Aberdeenshire,
- To establish a range for the Red Kite throughout Scotland,
- To inspire the local people.

The kites were held at and released from Easter Anguston Farm. Cages had feeding hatches and peepholes for people to check up on the birds without getting them too used to the human form. Easter Anguston Farm is a site that is used by people with learning difficulties in order to gain work

experience in the countryside and the kites were very popular amongst the workers. Initially, the kites were fed on **grey squirrels**, but they didn't seem to like these, perhaps because grey squirrels are not native. As an alternative, the kites were fed **deer** which they seemed to enjoy much more. Interestingly the **white-tailed sea eagles** that were reintroduced a few years before were not so fussy and happily gobbled down batches of grey squirrels! In total, 101 kites were released over the three summers of the reintroduction period. *Landward* (the BBC series) came to film the progress.

The kites were fitted with radio transmitters, so that their movements could be monitored. From Easter Anguston Farm some kites flew as far as Dumfries and Galloway and to the north of Inverness. The identification wing tags on the kites are colour-coded depending on where they were hatched. Aberdeenshire wear purple, Black Isle wear blue, those from the Central Region wear red and Dumfries and Galloway wear green; that way the place of origin of a red kite can be quickly deduced. Red kites are fairly social and it seems that these kites had managed to meet kites from other parts of Scotland. Generally these kites are moving in a south west direction, though the reasons why are not entirely understood. As the kites disperse they meet problems with humans. Rodenticides are the main cause of death (the kites feed on contaminated carcasses or bait) while another source of high mortality rates are roads (kites land to scavenge on roadkill and are themselves hit by vehicles). **Ravens** and **buzzards** offer the kites competition.

The project ticks all the right boxes in terms of community engagement and supports volunteers and school involvement. Helpers are involved in fitting the identification rings on the kite's legs and people are needed to climb up to the nests to measure the chicks. School children would make crafts including a life-size paper kite! The children got to name individual kites with names such as 'Molly Musketeer' and 'Kingswells Bullet'. People wanted to call three chicks in one nest 'Jamie', 'Andy' and 'Murray'. Grant money was used for the purchase of CCTV cameras which can be fitted near the nests. With a bird's-eye view on the nest, we can now tell such things as how often the chicks like to exercise in preparation for the day that they take off. People watched on the internet and the North East Open Studio had a sculpture trail that featured 'arty kites' made of various materials.

The kite nests are not very steady and are often placed on weaker branches that are so far out that the friendly human ringer tree-climbers have to be extra careful. Within the nests researchers can see what prey the kites have brought back and the prey list can have a few surprises. On the menu are **gulls**, **stoats**, **rooks**, **tawny owls** and **deer** and **sheep** carrion. Smaller prey types (such as rodents and amphibians) are less well recorded as they are often devoured before they reach the nest. Litter has also made its way to the nests with tennis balls, apples, milk jugs and a toy dragon found within the nests.

The legacy of this project has been amazing and led to the first red kite chick being reared in Aberdeenshire for 150 years! At least 350 kite chicks have hatched since then with more kite chicks fledging on average from Aberdeenshire than any other part of the UK. These kites are spreading well and have even been spotted in the Angus Glens. Chicks hatched in the wild are now successfully breeding. The red kite populations in places like Spain and Germany are in decline, while the UK population has risen to roughly 6,000 pairs. Hopefully there will be more space for the red kite to expand its range and numbers in the UK for many years to come.

Mike Sedakat

## PHOTOGRAPHIC COMPETITION 2017

Hill and Mountain Natural History

There were only a disappointing ten entries for the competition. Perhaps members do not venture into the hills as much as they used to. The range of subject material was still diverse with the entries listed below in order of receipt.

Ringed Reflection (ring-necked duck, Pitlochry)  
Broad-leaved Cotton Grass, Lower Tarmachan Mountains  
Raven Mad  
Hawthorn Hairstreak  
Great Spotted Woodpecker, Montreathmont  
Winter Birch, Sidlaws  
Chalkhill Blue pair on Denbies Hillside  
I'm feeling lonely (Mountain Hare, Glen Isla)

Wendy Irons  
Joy Cammack  
Jim Smith  
Stevie Smith  
Bob McCurley  
Anne Reid  
Kati Smith  
Jim Cook

Redshank, Glen Lethnot  
Orchidaceous Landscape at Tom Beithe SSSI near Killiecrankie with  
Common Spotted and Fragrant Orchids

Jon Cook  
Patrick Marks

Once again the competition was judged by Ken Drysdale from Carnoustie, along with Lorna Ward for the Nats Council. The winner was Jon Cook with his close-up of a redshank in Glen Lethnot (see page 24). Second was Stevie Smith's green hairstreak butterfly and third Patrick Marks' orchid-filled meadow.

The results were announced after the AGM on 13th March and Lorna and Ken were thanked for judging, and Anne for administering the competition.

Anne Reid

## LADE BRAES, ST ANDREWS

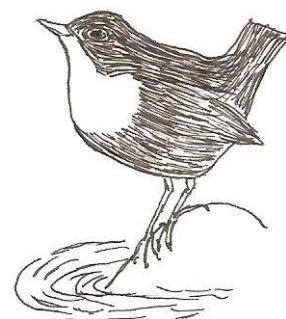
24th March

The spring outing was along the Lade Braes walk in St Andrews, and a pleasing 17 members came along, meeting at the car park off Argyll Street. The Lade Braes path follows the mill lade fed by the Kinness Burn, where, historically, there were nine mills fed by the lade. Today the path is a pleasant walk hidden behind the streets of St. Andrews.

We started at the entrance to the path at its junction with the viaduct path and then followed upstream through Cockshaugh Park. This early spring day was pleasant for walking and we saw signs of emerging spring flowers both in the gardens that we passed and along the lade itself where early spring plants such as **coltsfoot**, **celandine**, **butterbur**, and **snowdrops** were also still visible. Amongst the birds seen were **dipper** and **great spotted woodpecker** along with **finches**, **grey wagtail** and **blue** and **great tits**.

We followed the path upstream past Boase Wood with small areas of deciduous woodland. At Hallow Hill we took the path towards Spinkie Den. We walked upstream with a detour to see the Bogward Doocot, a rare early beehive type dating from the early to mid 16th century. Then we returned to the path and followed it to Canongate, where we followed the road for a few hundred metres and then followed another path by Canongate Primary School back to the Lade Braes.

The walk ended with lunch at the Whey Pat Inn.



Dipper

David Lampard

## SUMMER OUTINGS SOUTH FIFE COAST

21st April

The first Dundee Nats outing of the season was a walk along the south coast of Fife. The weather was wonderful and we now know this was a sign of the warm sunny weather to come later that summer. Two recces were made before the outing itself; to work out the best route. The first was a long walk between Aberdour down to North Queensferry (much further than originally thought!) and a walk from Burntisland to Kinghorn and back to Aberdour. Parts of these routes were unsuitable for walking or were in industrialised areas. Eventually the long walk was to be from Dalgety Bay to Aberdour and the short walk from Burntisland to Aberdour with the aim of both groups meeting at the Sands Cafe. The original plan had included a trip to the Deep Sea World aquarium, however, this was dropped from the modified plan due to logistical problems; although two adventurous Nats did explore the aquarium in the end and had a fun time viewing up close some of the animals that swim in the local waters, and many exotic species added to the mix!



The short walk was between Burntisland and Aberdour. There were great views of the Firth of Forth along this route and the north edge of the Southern Uplands was clearly visible. Species as diverse as **fulmar** and **gorse** were spotted during this walk and there was a picturesque spot by a waterfall where a few **roses** were growing. This was a good photo opportunity! The pathway was mostly wooded on the north side and the railway ran alongside the path for much of the walk. The Silversands Bay offered a sandy beach for walkers to explore and at that spot is Hawkcraig Point. This is the area where sea planes would dock during World War II with the harbour at Forth View offering a perfect location for these aquatic planes to land. The steep cliffs here are also a great place for nesting **fulmar**. They can also dive-bomb (with projectile vomit!) if threatened. Luckily the **fulmars** here are probably so used to seeing people that they rarely need to defend themselves in such a way!

The participants on the long walk started their journey from the western edge of Dalgety Bay (at St. David's Harbour) and although this is a largely urban spot, we were treated with a bit of natural history drama when several **herring gulls** started to mob a lone **grey heron**. The **heron** flew off and was pursued by the angry **gulls**. Perhaps the gulls had a chick nearby or maybe they had hoped to pirate whatever the heron had caught? We also came across a strange growth on a wall which quickly turned out to be just the remains of **ivy** that had been cleared! Much of the environment here was of large houses with big gardens which offer hiding spots for various small critters. There was a plentiful supply of green areas in the form of parks and community woodland. The Dalgety Bay Community Woodlands was gifted to the local people in 2013 and is maintained by volunteers. Among the animals and plants found living in or near these woods are **goldfinch**, **sea campion**, **carder bee**, **wild thyme**, **meadow brown** and **wigeon**. A gun battery used during both World Wars is located here and is a quiet place to sit and watch the boats going along the Forth. The shoreline itself is a haven for wading birds such as **redshank**, although much of Dalgety Bay is still controversially on the toxic side with signs informing people not to dig into the soil in certain areas!

Between the town and Aberdour, the Fife Coastal Path takes us inland through fields and a golf course. The ruins of St. Bridget's Kirk are near the furthest eastern corner of Dalgety Bay town and these spectacular building remains attract many visitors. There is a mixture of farmland, park and woodland, with masses and masses of **daffodils** growing along this section of the route. Aberdour itself has a lovely harbour with many small boats for those Nats who are nautically minded to enjoy seeing. Many of the Nats ended this trip with ice cream from the Sands Cafe and very well-earned it was too.

Mike Sedakat

## WORMIT TOWARDS BALMERINO

9th May

Though there had been rain earlier, the evening turned out to be beautiful and sunny. We met on the shore at the western end of Wormit, upstream from the rail bridge, and started our walk along this section of the Fife Coastal path. There was no expectation of reaching Balmerino as there was so much to see along the way.



**Shelduck** (left) and **mallard** were noted on the river mud before our departure. The first section of the path, through a tunnel of flowering **blackthorn**, gained height steadily giving a good view back down the river at the retreating rain clouds. Once on the flatter grassy area four **roe deer** were seen (very briefly) and there were **yellowhammers**, **blackcap** and **greenfinch** singing in the large trees. Birdwatching was made easy by the late emergence of many of the tree leaves after the late spring. **Chiffchaffs** and **willow warblers** were also singing in various places along our route and a group of seven **linnets** stopped long enough to be identified.

The **gorse** was in full flower in various places while the spring flowers were still at their best - including **wood anemones**, **wood sorrel** and **golden saxifrage**. **Ferns** were unfurling and a few

flowers of **red campion** were showing red. As we returned a **fox** was heard to bark somewhere in the woods.

It had been a leisurely walk along a route with plenty of variety and seems to have been enjoyed by all, especially as the sun kept on shining.

Anne Reid

## INVERBERVIE TO JOHNSHAVEN

19th May

Though originally planned to start from Gourdon, this walk had to be lengthened slightly due to the closure of the toilets there. The actual start, in Inverbervie, was a gentle downhill road to the coastal path, which was then more or less level walking the whole way to Johnshaven.

In Inverbervie village there were the usual **house sparrows** and **blackbirds** with plenty of **starlings**, some of which were carrying beakfulls of food back to nestlings. The **house martins** were in residence in several places - always a sign that summer is on its way. Down at the shore a large number of **eider** were in the bay and a **gannet** was seen offshore. Skulking in a scrubby bush beside the path we eventually identified a **whitethroat** singing, the first of many along the path.

Once beyond Gourdon village the small birds all appeared to be singing and especially the **skylarks** and **sedge warblers** in addition to more **whitethroats**. A **rock pipit** was seen carrying food to an early brood of nestlings and two **stonechats** were very agitated at our presence. The late spring had delayed some of the expected flowering plants, but we did see **bird's foot trefoil**, **thrift** and plenty of **gorse** on the grassy cliffs.

While most people kept along the shore path, a few took the small road up towards Benholm where a singing **blackcap** added to the list of migrants. This route enabled us to cross the den on the main road bridge and then to take the path down through woodland in the hope of a different range of species. We added **goldfinch**, **blue tit** and **jackdaw** to the bird list and found a splendid **dryad's saddle fungus** on a dead tree (see photo).



Once back down at the shore we continued to Johnshaven where the bus was to pick us up down by the harbour. Though not a long walk, there was enough to keep our interest for the whole day and everyone seems to have enjoyed the outing.

Anne Reid

## NINEWELLS HOSPITAL DUNDEE

22nd May

Joint with Botanical Society of Scotland and Friends of the Community Garden

Ninewells Hospital is remarkable in having a large arboretum in its grounds providing a pleasant network of paths, much appreciated by the local community. There is also a community garden which lies alongside the arboretum and is maintained by a team of volunteers. Dundee Naturalists and the Botanical Society of Scotland (BSS) were invited by the Friends to visit and review the wildlife to be found there. We were recording plants for the BSS urban flora project (which will also feed into the botanical atlas 2020) and also noting birds, invertebrates and other wildlife. The arboretum stretches across two tetrads (2 x 2km squares), so two lists were made. The dividing line runs up the main path of the community garden.



In the eastern square 43 different plant species were noted and in the western 37. The plants were a mixture of natives and aliens, but planted specimens were excluded. **Pignut** (*Conopodium majus*) was widespread as was **meadow foxtail** (*Alopecurus pratensis*). Five species of **speedwell** (*Veronica*) were spotted (*V. chamaedrys*, *V. filiformis*, *V. officinalis*, *V. serpyllifolia* and *V. hederifolia*) and a sixth had been seen a couple of days earlier (*V. persica*). An unexpected find was **fiddleneck** (*Amsinckia micrantha*) in the path by the garden.

Birdlife was plentiful and 19 species noted included **great spotted woodpecker**, **goldfinch** and **swift**. A **tawny owl** was heard. A **common carpet moth** was recorded and an egg of **orange tip butterfly** was detected on its food plant (**cuckoo flower** or *Cardamine pratensis*).

**Rabbits** were seen in several places and a **vole** scuttled away under a plant pot in the garden. There were some interesting looking fungi which mainly remained unidentified.

This was an enjoyable evening which yielded some useful records.

Brian Ballinger

## ELGIN WEEKEND

1st - 4th June

38 members set off on the coach and after a lunch stop at Parkhill Nurseries outside Aberdeen we spent the afternoon at the Loch of Strathbeg RSPB reserve. The loch is Britain's largest dune loch and formed naturally in a massive storm in 1720. The lagoon, where the loch is now, its small harbour and the village of Rattray, were cut off from the sea and buried by shifting sands. Strathbeg is a vital wintering and staging post for up to a fifth of the world's **pink-footed geese**. It is also home to a wide variety of wetland wildlife, such as breeding terns and gulls, migrating waders and wintering wildfowl.

It took a few tries to find the (bus friendly) entrance to the reserve, because of narrow roads and tight corners. However, it was well worth the visit. It was a warm and sunny afternoon and there was plenty of opportunity to explore the reserve, the visitor centre overlooked marshes and ponds, with nearby hides. A nesting island was full of breeding **common terns**, and **gulls**. Visible in the distance was a small herd of **Konik ponies**, a semi wild breed from Poland, used for habitat management. The group split up and headed for the various hides around the reserve. Highlights included nesting **great spotted woodpeckers**, which we were able to pinpoint from the noise of the young, and a **marsh harrier**. The total bird list reached 37 species in a relatively short time which reflected the richness of the site.

We set off for the Crerar Eight Acres Hotel in Elgin arriving around 6pm in time for the evening meal. The hotel is next to a woodland called Quarry Wood or Quarrelwood. Members took the opportunity of exploring it during the evenings and were fortunate to see and hear roding **woodcock** in the fading light. (photo below) The woodland is an old **oakwood** with more recent plantings of conifers



and **beech**. The wood contains a **henge** monument consisting of an earth bank and ditch about 4000 years old, which was reached by some of the party. The wood is also the site of **sandstone** quarries which contained the fossils and trackways of Permian reptiles including one called *Elginia*. These were some of the first animals to walk like modern reptiles.

The group spent the second day at Culbin Forest, which was once a vast area of shifting sand dunes, owned by the Kinnaird family from the 15th century for 200 years, until a sandstorm finally buried the estate. Culbin had suffered from sandstorms for centuries. However, the poor management of the estate destabilised the dunes and in 1694 a great sandstorm engulfed the main house and surrounding farms. The remains of the houses and farms are still out there, buried deep beneath the sands.

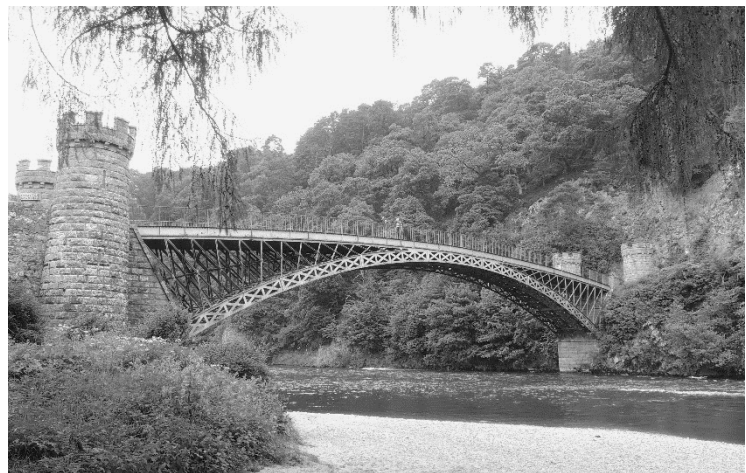
The Forestry Commission purchased Culbin in the 1920s and planted the dunes with **Scots** and **Corsican pine**. **Birches** have also sprung up throughout the forest which is also home to unique **lichen** and **fungi** communities. An impressive 500 species of flowering plant and 130 species of **lichen** have been found here.

There were two walks on offer and a small group were dropped off in Nairn to walk along the coast and through the forest about 7.5 miles to the visitor centre. The route followed the coastal sand dunes past the Minister's Pool and then into the forest. The dune slack meadows were alive with wild

flowers. An **elephant hawk moth** was found along with **striped millipede** (*Ommatoiulus sabulosus*) and a bird pellet, probably from a **gull**. In the forest the **rove beetle** *Staphylinus erythropterus* was found along with **wood ants** *Formica* sp. Although the day was warm it was quite humid and at the lunch stop there were **midges** and **mosquitoes** to keep us company, so we did not stop for long. Amongst the highlights were a number of **speckled wood butterflies**, an **orange tip**, a **large red damselfly** and **green tiger beetles**. Though birds were recorded many were high up in the tree canopy and remarkably difficult to spot, though we did hear **willow warbler**, **chiffchaff**, **blackcap**, **song thrush** and **robin** throughout the walk with sightings of **coal tits** and **chaffinches**.

The remainder of the group undertook shorter walks starting at the Wellhill visitor centre along well signposted paths. A favourite was to the viewing tower that rises above the forest canopy at hill 99. A number of butterflies were seen in this area including **speckled wood**, **small blue** and **dingy skipper** - a speciality of the area. Barry was looking out for the **red-banded sand wasp** (*Ammophila sabulosa*) which he duly found in its characteristic sandy habitat. An extension of the path network led to the coastal RSPB reserve at The Gut. On the other sandbanks were a large colony of **common seals**. Along the shore are the remains of long wooden poles still sticking out of the sea. They are the remains of anti-glider defences from the Second World War.

On the third day there were two walks. In the morning, the first followed the Speyside way footpath along the River Spey from Craigellachie to Charleston of Aberlour. Before we had got very far the route passed a playground with a splendid zip wire, which was well-tested by a number of Nats. (Some of us a number of times! It was great fun!! Ed.) After admiring Telford's famous cast iron bridge over the Spey at Craigellachie, our path followed the route of the old Strathspey railway line. It passed through deciduous wood and hedges, where **bullfinch** and **treecreeper** were seen, before finishing at Charleston of Aberlour station.



After lunch the coach departed for the coastal village of Hopeman. Again a number of walks were on offer. There were shorter walks around the village along the Moray coastal path. Hopeman is the site of many important fossil discoveries, mainly trackways and footprints of ancient Permian tetrapods. These trackways can be found in the **sandstone** on the beach at low tide and rocks amongst the shore as well as from quarries. Along the foreshore is a bandstand where there are slabs of rock with the footprints and trails of Hopeman's famous Permian fossil reptiles - ancestors of the dinosaurs, *Saltopus elginensis*, an ancestor of mammals, *Gordonia*, and a possible ancestor of the turtles, *Elginia*.

The longer walk followed this coastal path eastward to Covesea lighthouse. The path followed the coast and around Hopeman golf course before continuing along the cliff top with some **primroses** still in flower in places. The path passes Clashach quarry which is still active today, however along the path by its entrance are more fossil trackways. At the halfway point was an old coastguard lookout station. For most of the way the path ran between **gorse** bushes and looked out to sea. **Fulmars** were nesting and **eiders**, **gannets** and **shag** were seen at sea. The last section was along the beautiful sandy beach to the west of Lossiemouth, which slowed us down somewhat. The walk finished at the path to the lighthouse and the coach was rejoined at the entrance to Silver Sands caravan park.

The longer walk followed this coastal path eastward to Covesea lighthouse. The path followed the coast and around Hopeman golf course before continuing along the cliff top with some **primroses** still in flower in places. The path passes Clashach quarry which is still active today, however along the path by its entrance are more fossil trackways. At the halfway point was an old coastguard lookout station. For most of the way the path ran between **gorse** bushes and looked out to sea. **Fulmars** were nesting and **eiders**, **gannets** and **shag** were seen at sea. The last section was along the beautiful sandy beach to the west of Lossiemouth, which slowed us down somewhat. The walk finished at the path to the lighthouse and the coach was rejoined at the entrance to Silver Sands caravan park.

On the final day the group spent the morning at Spey Bay which is the home to the Spey Bay SWT coastal reserve and the Whale and Dolphin Conservation Trust Scottish dolphin centre. The Moray Dolphin centre has displays and audiovisual information about the Moray Firth dolphins and telescopes are set up to watch for dolphins from the shore. The bay has the largest shingle beach in Scotland. The river mouth has a mosaic of habitats, caused by the unstable shingle which is regularly moved by river floods and high tides. This is particularly good for birds and a large number of **gulls** were present on the opposite side of the river mouth with **shelduck**, **oystercatcher**, **ringed plover** and **common terns** also seen here. Further up the river estuary there is scrubby wet woodland on the river braids beside the track which leads up to the old railway viaduct, now a footpath. **Common sandpiper** were seen here and **sedge warbler** and **blackcap** sang nearby. On returning from the walk an **osprey** was spotted fishing in the river.

Some of the group had lunch at the Baxters visitor centre and there was time for short walks

along the nearby Speyside Way. Some of us got a fair distance along this stretch of the Spey and found two adult **common sandpipers** with a juvenile, **lesser black-backed gulls** nesting on shingle banks in the river and **grey wagtail** and **heron** on the far bank. This was in addition to the usual woodland birds near to the path.

There was time for a final stop off at Braemar for an afternoon break before arriving back in Dundee around 6pm.

David Lampard

Note: A total of 15 bird lists, and a few casual observations, were submitted to Birdtrack from the whole weekend. A full 75 bird species were recorded, reflecting the variety of habitats visited. Ed.

## CAMPERDOWN PARK

12th June

Fifteen of us gathered in the car park by the Zoo on what proved to be a dry evening, although a storm was on the way. A few of us concentrated on plants whereas others sought bird and other wildlife. The walk followed the path around Camperdown House and westward along the Green Circular cycle route and past the duck pond. We then followed the boundary path north and around the edge of the park. The pathway here was through mixed deciduous plantation trees and offered a pleasant walk.

Camperdown Park is quite extensive and not well known to some of us away from the main attractions. We recorded plants for the Botanical Society of Scotland's urban flora project as the park lies within the city boundaries. As this was a brief evening trip we only managed to record the two 1km squares to the west of the site, apart from a few brief notes from the east. We noted 105 plant species in the more productive square and 48 in the other. The flora is really quite rich for a park and would merit further review. There was a considerable amount of **pignut** (*Conopodium majus*) and we also saw **three-nerved sandwort** (*Moeringia trinerva*). The **wood sedge** (*Carex sylvatica*) thrived in one area and the **lady's mantles** *Alchemilla glabra* and *A xanthochlora* were found. **Wood millet** (*Milium effusum*), rare in Angus, was a surprise.

The weather had been dry so only a few fungi were seen, but a foray in the autumn might be worthwhile. A **roe deer** leapt away from us at one stage and a **swift moth** was seen darting around the flowers. A range of woodland birds were seen including **jay**, **great spotted woodpecker**, **blue tit**, **blackbird** and **robin** and **blackcaps** were heard singing in several places.

Brian Ballinger

## BLAIRGOWRIE AND THE RIVER ERICHT

16th June

This day excursion was memorable because of the weather. We left Dundee with a threat of rain which arrived as forecast in late morning and increased during the day to heavy and eventually torrential.

Our walk took us along the River Ericht and right at the start we spotted **grey wagtails**, **dippers** and **sand martins** near the road bridge. The walk took us upstream and through woodland with spectacular views of the gorge and the old mill workings, with sightings of many woodland birds including a **treecreeper**. We also managed to spot a couple of **green-veined white butterflies** before the rain set in.

The walk left the shelter of the trees to climb up the Knockie, where we sheltered under trees for lunch but still got quite wet. The heavy clouds allowed us to see some views over the Strath, although we were not able to see the distant mountains. The route then took us back into Blairgowrie to a couple of very welcome coffee shops. It was good to see that all who started managed the route up to the Knockie despite the rain - which just shows weather is no deterrent as long as you have the right clothing. We did, however, (from a nice dry coffee shop) request that Paul bring the bus back early to collect us on a day which was only getting wetter!

Lorna Ward

## ISLE OF MAY

19th June

It was a Tuesday, rather windy but dry. The crossing was a bit rough, but we all survived intact, packed like sardines on the *May Princess*. We were taken on a little sail around the island to see the **seals**, and as we approached the harbour, flocks of **puffins** were flying in and out. A Chinese couple sitting near us were taking lots of pictures with their long-lensed cameras.

There were 12 of us, six Nats members and six guests. We were greeted on landing by one of the Rangers who welcomed us and warned us to keep to the paths, to avoid crushing **pufflings** in their burrows. **Arctic terns** excitedly surrounded us and I walked with pole aloft to ward them off. Some people thought I was doing that to lead my party!

It was very windy, so not easy to sit and picnic, silently watching the **puffins**. We all went off in our own little groups to meet again at the boat at 4pm. Our group headed off towards the north end of the island on the low road, seeing **eider** and **gulls** nesting on the ground, some with young, and **puffins** coming in with fish-filled beaks. My friends who had never been on the island before wondered at all the **kittiwakes**, **razorbills** and **guillemots** nesting on tiny ledges on the cliff face. "This is better than *Springwatch*", said one. On wider ledges covered in guano were **shags** with their young in rough nests.

We came back along the high road, lined with beautiful flora; **bladder** and **sea campion**, **celandine**, **forget-me-not**, **silverweed**, **sea plantain**, **creeping thistle** and **sea pink**. We went down to Bishop's Cove, but it was very windy, so we came back up, looking for a sheltered picnic spot. We finally found picnic tables on the south of the island, sheltered behind a wall. Replete with lunch, we hiked off to Pilgrim's Haven, where we met Liz Olejnik with her daughter. Being excellent birdwatchers, they had also spotted **oystercatcher**, **fulmar**, **rock pipit**, **herring** and **lesser black-backed gulls**, **swallows**, **pied wagtail** and **gannets** out at sea.

We were very lucky to have three hours on the island. On the sail back, the Chinese man showed me lots of wonderful pictures of **puffins**, which he had magically down-loaded on to his mobile phone. He and his wife were thrilled to see so many birds, especially puffins. They were from Hong Kong and they loved visiting Scotland. On this trip, they had specifically wanted to come to the May Isle to see the puffins and were not disappointed. Back on dry land, we visited the famous Anstruther fish restaurant and dined magnificently on fish and chips, washed down by strong tea. A great day was had by all.

Kati Smith

Photo by Kati Smith



## CARNOUSTIE

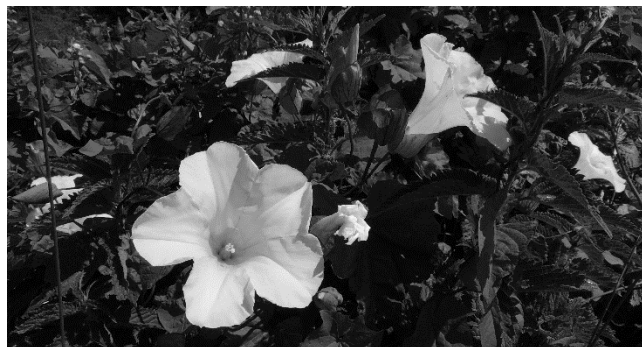
26th June

Joint with Botanical Society of Scotland

A small, select group of us met on the sea front at Carnoustie on a cool windy evening. Much of the country was enjoying a heat wave, but we felt a need to be well wrapped up as the east coast was missing out. We were recording plants for the Botanical Society of Scotland's urban flora project and also noting birds and any other wildlife.

The preparations for the Open Golf were well underway, although the tournament was still a fortnight distant, so the path going to the west was blocked by barriers. We therefore headed east, remaining in the urban coastal area, where the flora was a mixture of natives and garden escapes. We passed a few dog walkers, some of whom showed an interest in our activities.

*Ononis repens* (**rest harrow**) was in full bloom but most of the *Honkenya peploides* (**sea sandwort**) was yet to flower. *Carex arenaria* (**sand sedge**) was present in quantity on the dunes while *Thalictrum minus* (**lesser meadow-rue**) was also seen here and there. There were several *Geranium* (**cranesbill**) species, mainly of garden origin, but some appeared to be *G. pratense*, *G. molle* or *G. robertianum*. The **bindweeds** on the shore were *Convolvulus arvensis* (**field bindweed**) and *Calystegia sylvatica* (**large bindweed**) (below).



Along the path we also spotted *Foeniculum vulgare* (**fennel**), *Armoracia rusticana* (**horse-radish**) and *Saponaria officinalis* (**soapwort**). 88 vascular plant species were recorded in total. A brief venture onto the near shore identified 9 species of **seaweed**.

Only 14 species of birds were seen including **oystercatcher**, **eider** and two **herons**. A very pretty white **plume moth** was seen by some and Anne found a **yellow shell moth**. It was, unfortunately, too cold for

butterflies.

At the end of the evening Dorothy Fyffe kindly invited us home for a very welcome cup of coffee.

Brian Ballinger

## LINN OF DEE AND MAR LODGE

30th June

A reasonable turnout of 25 members took the coach to the Linn of Dee and Mar Lodge. It was a very warm day and we stopped at the Cairnwell for a short comfort break. On the road to Linn of Dee a couple of members were dropped off at the Victoria foot bridge to walk towards Mar Lodge and Glen Quoich.

Once at the car park there were numerous walks around the Linn of Dee. It was interesting that the water level in the Linn had dropped by more than 15 feet since the reconnaissance trip in April, to the point that other visitors were swimming in the river and enjoying the warm sun. At the car park the group followed one of the well marked trails through **pine** plantation. A dark form **shaded broad bar moth** was seen in the woodlands.

At a boardwalk open section, with a moorland type habitat, there were **heath spotted orchids**. The path reached a junction and the group split. A shorter walk lead to the Lui Water with waterfalls and followed it back to the River Dee. Birds were not much in evidence due to a combination of time of year and the heat but we did see **buzzard**, **chaffinch**, **coal tit** and **stonechat**. The highlight was a **spotted flycatcher**, an increasingly uncommon bird these days.

Following the main path north the ground to the left opened out, probably due to felling of the woodlands. Eventually at a junction, lunchtime was declared and most of the party stayed around a bridge crossing the Lui Water. This area was rich in invertebrates and plants

A couple of members headed north towards Derry Lodge - the land bordering the river was rich grassland while uphill it became more moorland. Amongst the butterflies seen were, **small heath**, **common blue**, **small pearl-bordered fritillary**, **meadow brown** and **dark green fritillary**. **Small heath** and the **fritillaries** were particularly common, along with a few **fragrant orchids**.

**Chimney sweeper** and very pale **mottled beauty moths** and **smoky wave** were in evidence and **common carpet** and **silver-ground carpet moths** were also seen. Various routes were taken back, following the River Lui back to the River Dee, where the path passed an old **salmon** ladder. An alternative more circuitous route followed a track along the hillside track to Claybokie, and then back along the road to the car park. Along the path **common darter dragonflies** were seen, and along the road back to the coach **common hawker** were patrolling the road along the Dee.

It had been such a hot day that a number of the party shed boots and socks and either paddled or dabbled their feet in the river when we got back - very refreshing. While we cooled off a **green-veined white** was added to the butterfly list and **grey wagtail** to the bird list.

David Lampard

## AUCHTERHOUSE RAILWAY PATH

10th July

About a dozen members met up at the old Dronley station car park at 7pm. The walk followed the footpath along the old Newtyle railway east towards Dundee. The path is surrounded by mainly arable fields, but the edge of the path and banks were rich with wild plants and trees such as **hawthorn** and **blackthorn**.

Amongst the birds seen were **jay** and **yellowhammer**, and **skylarks** sang over the fields. **Ringlet butterfly**, **shaded broad bar**, **silver-ground carpet** and **common carpet moths** were evident and a highlight was a **gold swift moth**. There were interesting hairy, red **robin's pincushion galls** on track side **rose** bushes.

On the return, near to the car park, a **wasp** nest was exposed in the bank. Unfortunately, while trying to catch a wasp to identify it, Anne got too close and was stung. Photographs showed that they were probably **Norwegian wasps** and there were no lasting ill-effects from the sting. (Served me right for upsetting them! Ed.)

David Lampard

## LOMOND HILLS

21st July

On a bright and clear day in July a bus-load of Naturalists arrived at the Lomond Hills Regional Park in Fife. East and West Lomond are extinct volcanic pipes filled with the igneous rock **dolerite** and they rise spectacularly above the low sedimentary rocks surrounding them. These are **sandstones** and **limestone** which was quarried in the 19th century and burned in kilns to produce lime for farming and lime mortar.

On arrival at the central car park the Nats divided into three groups, one of which headed up East Lomond where Brian Ballinger compiled a comprehensive plant list. This included a record of **parsley fern** (*Cryptogramma crispa*) previously not found on East Lomond but known on West Lomond. A wide range of **grasses** included **wavy hair grass** (*Deschampsia flexuosa*), **mat grass** (*Nardus stricta*), **sweet vernal grass** (*Anthoxanthum odoratum*) and **Yorkshire fog** (*Holcus lanatus*). Despite the recent dry weather there were plenty of flowers blooming such as **ragged robin** (*Lychnis flos-cuculi*), **common marsh bedstraw** (*Galium palustre*) and **germander speedwell** (*Veronica chamaedrys*).

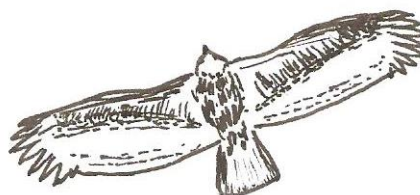
The second group headed up West Lomond where Cathy Caudwell recorded lepidoptera including **antler** and **brown china mark moths** and **butterflies** including **ringlet**, **small heath** and **green-veined white**. Birds seen included **kestrel**, **buzzard**, **carrion crow** and **meadow pipit**.

The main group took a low level route through Little Ballo farm to the reservoirs of Ballo and Harperleas, passing inquisitive **sheep** and a beautiful field of blue **phacelia**. Kati Smith recorded the wide range of flowers including **meadow vetchling** (*Lathyrus pratensis*), **angelica** (*Angelica sylvestris*), **sneezewort** (*Achillea ptarmica*) and **tormentil** (*Potentilla erecta*).

There were plenty of butterflies flitting around including **fritillary**, **peacock**, **common blue** and **red admiral** and insects such as **tree wasp**, **7-spot ladybird** and a **bee hoverfly**. Some of the group spent a while admiring an obliging **goldfinch**.

After lunch near the reservoirs the group retraced their steps to the car park, with several people including Anne Reid making a slight detour to look at butterflies on a patch of wild flowers beside Harperleas reservoir where eight species were counted. A number of butterfly lists were made during the walk and submitted to the Butterfly Conservation 'Big Butterfly Count'. By the time we got back the sun was blazing down prompting many of the group to wish they could conjure up some ice cream.

Mary Galloway



## CARSEGOWNIEMUIR QUARRY BARBECUE

14th August

The morning weather had been miserably wet but we were lucky and by mid afternoon the sun had come out and the quarry was starting to dry out. Some 15 members and a number of guests met at the BBQ site where Anne had already set the fire going and it was heating up well. One difference from the usual BBQs, though, was that there was no mulled wine to greet us - what a shame!

Several members went for a walk around before the hot coals were ready but it wasn't very long before the first hamburgers, sausages, kebabs and other goodies were barbecuing nicely over the glowing charcoal. The tempting smell following the exercise sharpened appetites nicely! We welcomed Isabelle and Steven Davies and other guests from Aberlemno Community Council, sitting in seats with others not far from the BBQ plinth. Tom and Mary Harwood joined with Ken and Moira McGregor in tucking into their hot food in buns, along with Liz and Alban Houghton, Dorothy Fyffe and Margaret and Peter Bainbridge at the picnic tables covered with a variety of pickles, sauces and other delicacies.

Meanwhile Ronnie Ogg and Jim Cook spent a little time finishing off the assembly of the raft beside pond 3 - and then joined in with the others at the feast. When we'd all satisfied ourselves, everyone trooped along to pond 3 and watched Peter, Alban and Tom help Jim to carefully launch the raft into the pond. It floated very well, although could have done with a more dense covering of turves to weight it down a little. (That waited for another day. Ed.)

Afterwards a group went for a tour of the quarry to see the sights and admire the growth of the trees and the development of the woods. By this time the light was starting to draw in and it was time to start packing up. It had been a wonderful evening!

Jim Cook

## BARRY BUDDON JOINT

19th August

The joint outing followed a pattern similar to recent years with bird and plant groups going their separate ways. It had been very wet overnight and, though clearing, this seemed to have put people off - attendance was lower than recently. The various groups met up at the lighthouse at lunch time where David and Anne had displayed the overnight moth catch. Due to the weather these had been processed inside the building with the display at an open window just as the sun put in an appearance.

Shortly after lunch a **short-eared owl** (photo, right, by Stevie Smith) was spotted flying low over the grassland beyond the lighthouse, but this was only seen by a few people. The previous night (when setting up the moth traps) Anne saw a juvenile **cuckoo** on a fence post not far from the lighthouse, but it had moved on by the time the main party visited.

Despite the damp start everyone enjoyed the day and the freedom to roam over the whole of Barry Buddon and explore its diverse wildlife. Our thanks to the Camp Commandant for making this possible.

Anne Reid



## MUSSELBURGH TO COCKENZIE

25th August

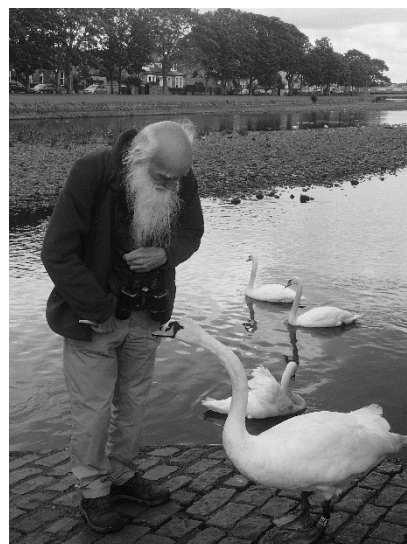
This coach trip stopped at Kinross services. Parking issues meant that we completed the walk in the reverse order than it was first imagined.

We were dropped off in Musselburgh High Street and headed towards the River Esk footpath. There were plenty of **mute swans** and **mallard** at a footbridge, many of which were remarkably tame.



In fact some members were accosted by the swans looking for a food handout (photo by David Lampard). The path led to the river mouth, where a number of female **goosander** were seen, before joining the John Muir Way long distance footpath east towards Port Seton. As we followed the sea wall we encountered a group of local Scottish Ornithology Club members and we were able to compare notes. This area is part of Levenhall Links Park, which has been landscaped from a fly ash landfill site from the nearby Cockenzie power station which closed in 2013. The plan is to convert the ash settling lagoons into ponds and scrapes and surround it by landscaped woodlands.

We followed the path to the lagoons where one has been made into an open loch with a boating pond. Others were in a reserve area screened by tree planting and with concrete hides to look out over the scrapes. Amongst birds seen were numerous **redshank**, **bar-tailed godwit**, other waders, ducks and some birds of prey. Two **roe deer** walked across in front of one of the hides giving good close views.



After lunch we continued towards Prestonpans and some members detoured to Prestongrange industrial museum. For over 400 years Prestongrange was a focus of industry. A harbour, glass works, pottery, colliery and brickworks have all left their marks on the landscape including winding gear, a vast brick kiln and a Cornish beam engine. Surrounded by woodland the site is now a haven for wildlife where there are remnants of buildings and machinery.

After a short stop at the museum centre we headed back onto the John Muir Way towards Prestonpans. There were a number of people taking advantage of the ripe **brambles** along the path. At Prestonpans a stone causeway led around the town walls along the beach. Unfortunately the causeway was covered by the rising tide. However along Prestonpans High Street there were plenty of opportunities to detour into small loans to look out over the sea wall and a couple of **grey seals** were seen. On the other side of Prestonpans the path crossed a park back to the sea wall and past the site of Cockenzie power station. A number of anglers were fishing from the old coal jetty here - their target, apparently, was **mackerel**. On the way past some rough grassland there was a possible sighting of a **dark green fritillary butterfly**. The path passed Cockenzie harbour and finished at Cockenzie house and garden, where some members managed to get the last tea before the garden closed.

David Lampard

## ALYTH DEN FUNGAL FORAY

22nd September

A keen group of Naturalists and Tayside and Fife Fungal Group members, all keen 'mycophiles' (a fancy term for 'fungi folk!') gathered from the bus - with only 15 passengers, though - and cars to head along the Den with eyes open for plants, birds and, not least, a wide variety of fungi. Within a few yards, we could see the numerous black patches of **tar spot disease** (*Rhytisma acerina*) on almost every sycamore leaf and the black stalks of **candle-snuff fungus** (*Xylaria hypoxylon*) on several old stumps. Meanwhile Brian Ballinger quietly got on with the task of recording the flowering plants of the Den. Beside the track Duncan McGregor's youngsters brought in a number of caps of **honey fungus** (*Armillaria mellea*) and, looking further along the path, we could see many others. Young Karis brought in a piece of very old and partly rotted wood carrying lots of the tiny bright yellow discs of **lemon disco** (*Bisporella citrina*) and yet another honey fungus while her brother had a piece of **oak mazelgill** (*Dadaelea quercina*). Duncan spotted a few **jelly babies** (*Leottia lubrica*). A short distance along the path, Heidi held up to the light a piece of broken branch from a **beech** that was carrying several small delicate sticky white caps of **porcelain fungus** (*Mucidula* (*Oudemansiella*) *mucida*) to admire the translucent nature of the caps.

Members of the group came across a number of brittlegills and milkcaps. There were many **ochre brittlegills** (*Russula ochroleuca*) and **beechwood sickeners** (*Russula nobilis* (formerly *mairei*)) and a few **beech milkcaps** (*Lactarius blennius*) and also a number of **deceivers** (*Laccaria laccata*), most of which were highly deceiving, not being identified until the underside of the caps and the colour and nature of the gills had been checked. (Continued on page 26)



## PHOTOGRAPHS



**Redshank, Glen Lethnot by Jon Cook**  
**Winning entry in the 2017 photographic competition for the Kim Eberst Trophy**



**Aerial photograph of Carsegowniemuir Quarry**  
**taken by drone on 6th July by Tracey Dixon, Dundee University**

The rare beetle *Dictyoptera aurora* found at Montreathmont forest in May 2018  
Photograph by Stevie Smith  
(See page 38)



Wormit to Balmerino, 9th May. Looking back towards Wormit with Barbara, Beryl and Yvonne. The 'tunnel' is flowering blackthorn.  
Photo Anne Reid  
(See page 14)

Common puffball, *Lycoperdon perlatum* at Morton Lochs, Fife, November 2018  
Photo Anne Reid





The group then came across an old cut stump bearing two interesting jellies - **purple jellydisc** (*Ascocoryne sarcoides*) and **beech jellydisc** (*Neobulgaria pura*). Low on the side of a fallen log, Barry Caudwell spotted several small jelly-like growths which were identified as **jelly tongue** (*Gleophyllum separium*), a species not often seen. Richard Brinklow found a small specimen of **elfin cap** (*Helvella lacunosa*) while we were all fascinated by a clump of **white brain** (*Exidia thuretiana*) brought in by Alison Keeble. Alistair Godfrey picked up another brittlegill that soon proved to be **crab brittlegill** (*Russula xerampelina*), also locating a small pink **slime mould** (*Lycogala terrestris*). Gordon Maxwell found a relatively large, fairly greenish funnel cap which was instantly identifiable because of its strong aniseed smell as **fragrant funnel** (*Clitocybe fragrans*) - so strong, in fact, that we didn't need to hold it up to smell the cap and catch its scent.

Although most of the party made it along to where the path crossed the road, not many had time to penetrate further along to continue up beside the burn. It had been a great day, with a good range of fungi.

Jim Cook

## AUTUMN MEETINGS BANKSIAS AND BILBIES

Alban Houghton - 9th October

**Banksias** are Australian plants, aren't they, but just what are **Bilbies**? Alban Houghton enthralled and enlightened a large audience of Naturalists and guests with a fascinating talk about the wildlife, especially plants, of south-western Australia. The area around Perth is one of the world's top 25 biodiversity hot spots and Alban's numerous, excellent slides certainly illustrated that very well. He and Liz had spent three weeks there last November and had taken extensive tours several hundred miles north and east to near desert conditions and south to the town of Albany and the Southern Ocean.



In Kingspark Botanic Gardens in Perth they saw a great display of natives, including **orchids** with such beguiling names as **wispy spider**, **cowslip** and **pink faeries**. There were lots of **banksias** (*Banksia coccinea*, left, photo by Alban Houghton) as well as great displays of 'legumes' (members of the family Fabaceae) named **running postman**, **granny's bonnet**, **ouch bush** and **Sturt's desert pea**. **Kangaroo paw** and **cat's paw**, a plant with the very Australian name of **snotty-gobbles(!)**, many **myrtles**, **bell-fruited mallee** (a bush) and numerous **eucalyptus** trees also featured. Birds in the area included **black swan**, **purple swamp-**

**hen**, **rufous night-heron**, **New Holland honeyeater**, **wattlebirds**, and **maple lark**, and a **honey possum** was also seen.

Alban and Liz visited Rottnest Island where they saw a good variety of natives including **Australian pelicans** and **ravens**, **silver gull**, **laughing dove**, **grey teal** and **quokkas** which are enchanting creatures like small **wallabies**.

Then they went north to 'The Pinnacles' where **shingleback lizards**, **galahs** and **wallaroos** were seen and photographed. At Hi Vallee nature reserve they were shown a variety of **hakeas** and **droseras** (which we know as **sundews**) and **horned poison** which is lethal to placental mammals but not to marsupials due to its carrying of sodium fluoracetate compounds. At Kabarri nature park Liz and Alban saw **wreath flowers**, **pink fountain**, **trigger-plants**, **pink pokers** and **cowkicks**. (What wonderfully inventive names!) **Grass trees** and **termite** mounds also featured. Along the coast were **Nankeen kestrels**, **blue-tongued lizards**, **emus** and, offshore, breaching **humpback whales**.

South from Perth the group saw **day irises** and **mistletoes**, **spotted jezebel butterflies** and huge **Kauri** forest trees. In the wet moss were flowers of **pink petticoats**, *Utricularia* species (**bladderworts** to us) and a **mistletoe** root parasite. Passing the Stirling Range they noted **plumed honeyeaters** and **grey shrike thrush**. At Point Anne Fitzgerald near the town of Albany they were fortunate to see a **southern right whale** and then, in the Fitzgerald nature park was a whole variety of wildlife, such as **monitor lizards**, **pythons**, **varied dusky blue butterflies**, **yellow-throated miner**

and - at last, during a night walk - a **bilby**. These are small rabbit-sized marsupials with long ears but a pointed nose.

Back north around the saline lakes near Wave Rock and Hyden were **ornate dragons**, a type of lizard, fabulous **Swan River daisies**, **dancing spider** and **clown orchids**, more birds, mosquitoes, more plants, a **preying mantis**, snails, more plants and butterflies and so on, almost without number! We certainly all believed that SW Australia was a biodiversity hotspot - what a wonderful talk. A spirited question-and-answer session followed. As was remarked in the Vote of Thanks, it had been a terrific lecture to begin the winter series! Alban was rewarded with an enthusiastic and hearty round of applause.

Jim Cook

## QUARRY PLANTING DAY

20th October

The early arrivals didn't wait and straight away began planting the trees. We were very pleased to welcome Tracey Dixon, from the University of Dundee, who had been good enough to fly the photographic drone over the quarry back in June. Three holes had been dug already at the top of the bank on the other side of the main path from pond 1 and we soon lifted three of the self-sown seedling **hazels** already identified in the quarry. Murron, Mackenzie and Iona, young relatives of Ronnie and Loraine, helped us plant them, although spreading the matting out around them to suppress willowherb growth took some time and the children needed help in moving heavy stones to weigh down the matting against the wind. The youngsters had to leave at that point and Tracey then planted a small **rowan** in a pre-dug hole in area I, near the hide. Jenny and Brian Allan, meanwhile, had arrived and soon were serving out generous and very welcome libations of their hot mulled wine. Anne Reid spent some time trying to get the barbecue coals container to light but eventually was successful with some help. Before we started cooking at around 12.30 several groups went for a walk around to see the trees planted earlier, in the spring or previous autumn - and even admire the growth of ones they'd planted themselves (and improve appetites)!

Not everybody was able to stay for the feast but the rest of us set to with a right good will and soon reduced the pile of edibles on offer. It's amazing that we seem to be able to crowd so many items onto the barbecue griddle at the same time! Both of the lurchers, quarry veteran Purdey and new recruit Mollie, benefited from accidental or, even possibly deliberate, offerings and everyone seemed to have a good appetite for the food.

After we finished eating, tree planting started again. Both Moira and Fiona planted trees in the small area of **willowherb** to the south of the hide and the rest of the McGregor clan helped to plant two more trees, a **hazel** and a **hawthorn**, in area K further along the main path over the grassy plateau. By then it was nearly time to go, with one important job remaining. There was still enough man-power to easily shift the picnic tables in their protective covers up to the sheltered winter site well above potential pond rises. It had been a good day and although several couldn't stay for long, a total of 25 members, guests and friends attended.



Jim Cook

## URBAN BUTTERFLIES

Anthony McCluskey - 23rd October

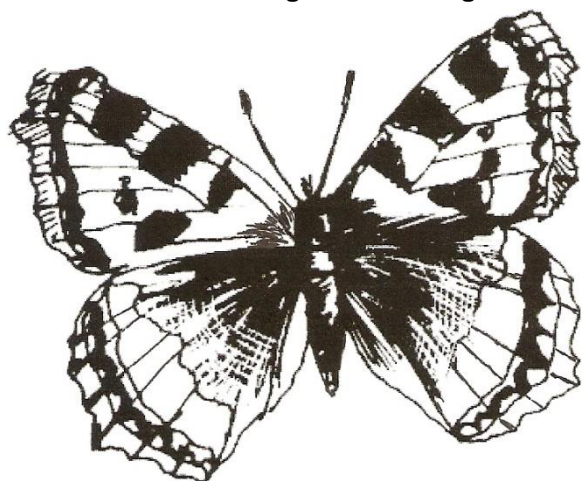
Anthony is the project officer for the urban butterfly project of Butterfly Conservation Scotland and has previously been involved in the "Bog Squad" in central Scotland. Previously Anthony worked for the Bumblebee Conservation Trust.

The talk began with an overview of butterfly biology, telling us that butterflies are an order of insect, they are related to moths and generally fly during the day in warm weather. There are 59 species of butterfly in the UK and 36 species in Scotland.

Their lifecycle is an annual one. Eggs are laid in spring or early summer, larvae or caterpillars emerge, they feed on plants until ready (moulting several times). They form a chrysalis in which they change their form and emerge as a butterfly. Different butterflies overwinter in different stages of their life cycle. Nine species spend winter as an egg; 31 as a caterpillar; 11 as a chrysalis; and five as adults. The **speckled wood** is unique as it can survive the winter as either a caterpillar or a chrysalis.

Anthony then explained the different families of butterflies. Papilionidae, the swallowtails; have only one resident species in the UK the **swallowtail**, *Papilio machaon*, which occasionally occurs in Scotland as a migrant. Hesperiidae, the skippers has eight UK species. The **chequered skipper**, *Carterocephalus palaemon*, is only found in north west Scotland around Fort William while the **small skipper** just makes it into south east Scotland.

Pieridae, the whites; have six resident species including the scourges of gardeners and allotment holders, the **large**, **small** and **green-veined whites** collectively known as **cabbage whites**.



Nymphalidae, the brush-footed butterflies, are the most abundant group with 26 species including the regular migrants **red admiral** and **painted lady**. The **peacock** is now our most common butterfly while **comma** and **speckled wood** have only recently arrived in the Dundee and Angus region. Other families include the **fritillaries**. Riodinidae, the metalmarks, have only one species in the UK, the **duke of Burgundy**, *Hamearis lucina*.

Lycaenidae, the she wolves, includes the **blues**, **browns** and **hairstreaks**. Two of Angus' rarest species the **small blue** and **northern brown argus** belong to this family.

After going through the butterfly families, Anthony continued with a description of Butterfly

Conservation projects and ways in which people may volunteer. Anthony has run the "bog squad" for a number of years. This project encourages volunteers to help conserve lowland and mid Scottish raised bogs. Many of them are near urban areas and have been subject to drainage or are being covered by invasive species. The squad dams drainage channels and removes invasive species to bring back the wildlife on these sites. The flagship butterfly is the **large heath**.

More recently Anthony has been running the urban butterfly project which encourages people to attract butterflies to their gardens or parks by planting wildflowers and other pollinator-friendly plants. To see how effective this is, people are being asked to record butterflies in towns and cities. As well as traditional methods of recording, sightings can be entered electronically onto a site called irecord by website or by mobile phone.

The urban project originally started in Glasgow and Edinburgh, and in 2018 Anthony came to Dundee to organise some workshops and has worked with Dighty Connect, the Dundee Law project and Ninewells Hospital garden. As well as encouraging casual recording Anthony set up transects along the Dighty and on Dundee Law. A transect is a fixed route between one and two kilometres long which is walked regularly during the spring, summer and autumn. As transects are walked the type and number of butterflies are counted within 2.5m of each side of the walk.

Other schemes for recording include casual recording and two special events. The Big Butterfly Count, which usually takes place in July and August, asks volunteers to choose a spot and to count all the butterflies seen within 15 minutes. The Garden Butterfly Survey encourages people to record the butterflies that visit their gardens over the course of a year. It is carried out electronically through a website.

Finally Anthony talked about the butterflies on roofs project. Currently in early stages it is an offshoot of the urban butterfly project. In many towns and cities businesses and some individuals have planted "green" roofs, with a range of drought-tolerant plants. The aim of the project is to survey how important these roofs are to pollinators and to identify which plants are more important for attracting species.

In all Anthony's talk was a through exploration of butterflies and how to help conserve them.

David Lampard

## MOSS (BRYOPHYTES) WORKSHOP

Led by David Chamberlain and Liz Kungu - 1st November

This workshop was organised jointly by the Botanical Society of Scotland and the Dundee Naturalists' Society and was held in the Collections Unit of the McManus Museum. David Chamberlain and Liz Kungu from the Royal Botanic Garden in Edinburgh led us through the lifecycle and identification of mosses and liverworts.

In the morning we began with a talk which was followed by exercises in identification and the use of identification keys in the laboratory.

After a snack lunch we walked along to Seabraes where there were areas of vacant land, some of which were old railway sidings. The first had a good covering of moss including such species as *Didymodon insulanus*, *Barbula convoluta*, *Brachythecium albicans* and many others. The sun shone so the visibility was good for the time of year.

We then moved to another more vegetated area where more species were found and there was a remarkable quantity of **teasel** (*Dipsacus fullonum*). Our route then led us past some steps coated with a profuse growth of the liverwort *Marchantia polymorpha* and also featured moss-covered walls.

In all 35 moss and liverwort species were identified. Richard Brinklow also noted 19 lichen species. All these records will contribute to the Botanical Society of Scotland's urban flora project. We are very grateful to David and Liz for this event and also to Mike Sedakat for being our host at the collections unit.

We finished with a welcome cup of tea or coffee in the Queen's Hotel.

Brian Ballinger

## THE BELL PETTIGREW MUSEUM, ST ANDREWS

10th November

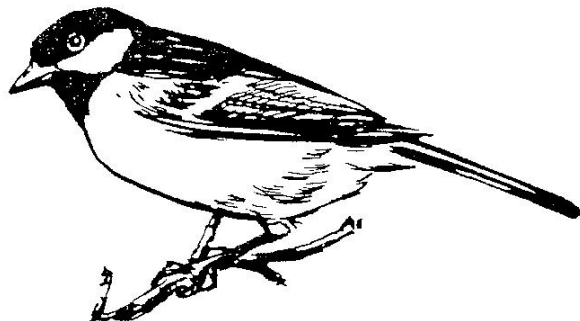
This visit almost turned into a disaster before it even began. Despite checking just the week before, I received an apologetic phone call at 9.15am on the Saturday morning to say that the lecturer and key-holder of the museum was stuck in the Outer Hebrides because of the fierce stormy weather holding up the ferry sailings. What to do? We had a quick discussion with the keen group assembled in the car park, suggesting a range of options including the town museum or even the aquarium. However, it was a lovely sunny and even reasonably mild day and we decided that a walk down the Lade Braes towards the harbour would be best. (We had walked in the opposite direction in the spring - see page 13).

Two routes were taken, but we all met up at the first footbridge downstream from the Largo Road and set off together along the path following the burn and seeing a **robin**, **great** and **blue tits**, a few **blackbirds**, several **mallard** and even a glimpse of a **dipper**. There were still a few late flowers about: **red champions**, several floriferous back-gardens and an abundance of the greenish flowers of **ivy**. A few fungi were noted as well, including some **glistening inkcaps** (*Coprinellus micaceus*), a couple of beaten-up **shaggy inkcaps** (*Coprinus comatus*) and one or two **pavement agarics** (*Agaricus bitorquis*).

Anne Reid (many thanks for her help) led the keener and faster group down to the harbour where there were a few **goldfinches** and several **waders** to be seen.

We were, however, all on time for the lunch in another bar-restaurant who, unlike the establishment at our last visit to the town, were well organised to receive us. This time we'd all been served within about ten minutes of sitting down and enjoyed a variety of soup and large sandwich combinations. That part of the outing, at least, had worked well!

Jim Cook



## DINOSAUR MODELLING

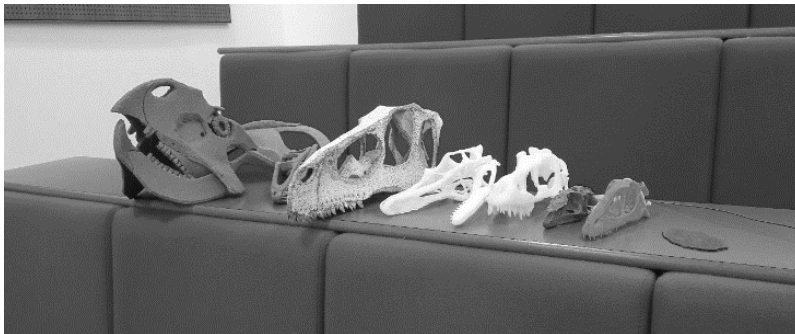
Calum McAndrew - 13th November

Intrepid Dundee Naturalists were in for a real treat as Calum McAndrew of St Andrews University gave a thoroughly entertaining talk about the idea of constructing home-made dinosaur models and puppets. Calum's home has been named 'Jurassic Flat' as it is full of dinosaur models, puppets and the equipment and materials used for making them. The thing that would surprise most onlookers is just how easy and quick it is to make these wonders of the Prehistoric Age!

Calum previously worked at the Dundee Science Centre as a science communicator and has more recently used these skills to help teach inmates at Castle Huntly Prison about getting into science. Calum, like many in his field, has found out that dinosaurs are the best subjects to talk about when introducing science to people that may not have much experience in science. With dinosaurs you can branch out by comparing them to living animals, the effects astronomy had on them and the habitats they lived in. Calum himself got into this habit when as a ten year old, he discovered a 'cool' rock that turned out to be the fossil of a dinosaur bone! The dino-bug had bitten him; even his wedding cake had two dinosaur toys on top of it!

Calum started his talk by introducing Nats to the *Megalosaurus*, a large predatory dinosaur that was described by Dr William Buckland early in the 19th Century. It was the first true dinosaur to be scientifically described, but the recreations were very inaccurate by today's standards. Victorian **megalosaurs** were drawn as giant monitor lizards, unlike the much more bird-like modern drawings. Admittedly, the Victorians did not have that much to go by as many thought it the remains of an ancient war elephant and others thought a knee bone was the fossilised scrotum of a giant!

Then Calum showed the Nats how to make some of his amazing models. First off, an **ichthyosaur** (a marine creature that resembled a cross between a shark and a dolphin, but is usually referred to as a reptile). It is worthy to note that most museum fossils on display are in fact replicas, often made of papier mache, foam or plaster casts. Calum himself uses these materials and will use a simple hair-dryer to set models solid. He made a dino-bone play area at the Science Centre by using foam stuck on cardboard, painted to look real and covered in sand; the whole project cost less than £20! Another popular critter he talked about was the *Protoceratops*, (a lion-sized dinosaur with a hooked beak and a crest) of which he made a life-sized skull out of cut up yoga mats. This whole process took just one and a half hours. He has made full skeletons as well. Armed with foam, super



glue, pins, sellotape and a fishing rod for the back bone, he has built a life size *Ceolophysis* (among many other dinosaurs). This particular three metre long dinosaur took him half a day to make.

Another method Calum uses for creating dinosaur models is 3D printing. The printers used for this process can cost £200, however the

materials used are cheap and worth the effort. Models constructed by these printers can use a variety of building substances including (but not limited to) wood, bamboo, metal, clay and of course, plastic. 3D printers print out models in layers and each costs £1-2 to make. This technology has become very important for the science of the future as even space exploration companies are looking into sending 3D printers into outer space and using moon rock as material to use for the construction of space colonies (a slight diversion from dinosaurs, but this just goes to show how easy it is to talk about science by starting off talking about dinosaurs!). Back to the dino-models, the small parts (bones) can be 3D printed and built up to make an entire skeleton. The scans found online are completely free to download and are from companies such as MorphoSaurus, Witmer's Lab and Thingiverse. The potential for 3D printing is limitless. The Nats were given the chance to handle all the models and many of us found this experience absolutely fascinating.

Now for the big guys! Calum has made huge models and puppets that he has used in demonstrations in the Science Centre. For these critters, he has dismantled furniture and used clothing, litter pickers, pipes, foam, fur (often from charity shops) and even swivel chair legs to make large puppets that can be easily transported. One such is his *Deinonychus* puppet. This animal was a very close relative of the *Velociraptor* and the fossil evidence points to this animal having had feathers over much of its body (hence the fur!). Nats were greeted by a number of dino-puppets, including a big head

belonging to a puppet of a *Yutyranus* (a relative of the great *Tyrannosaurus rex*). The head is part of an intended complete model which is made of dismantled furniture, pipes, frames, foam, pvc piping foam and lots of super glue. Feemo-modelling clay is useful here as when it is heated up, it turns into plastic. All this model-making can produce some interesting odours in the flat! The Nats were able to get a good look inside the head to see the network of pipes and handles that allow the puppeteer the ability to open and close the eyes and the mouth.

Calum finished the talk by talking about the fact that some dinosaurs had fairly large body to brain-size ratios and a very effective avian breathing system in which the lungs are far better at breathing than their mammalian counterparts. This talk was unique and entertaining for all. Calum also encouraged everyone present to try to build models for their children or grandchildren (or for themselves) to see how easy this hobby is. Great idea!

Mike Sedakat

Photos by Mike Sedakat



## THE SECRET WORLD OF RHODODENDRONS

Dr Richard Milne - 28th November

Joint meeting with the Botanical Society of Scotland

Richard Milne from Edinburgh University joined us on a stormy evening to give a fascinating talk on **rhododendrons**. He approached the subject from many angles - historical, cultural, botanical, horticultural and genetic. Richard developed his interest in this topic whilst doing his PhD work in Turkey. He has also written a book on Rhododendrons.

He began by describing the collecting work of George Forrest in Yunnan, China. Forrest only just escaped from an armed clash between Tibetans and Chinese in which many members of his party were killed. This did not prevent him from continuing his collecting work and over the following years he brought many *Rhododendron* species back to Britain.

We then heard about folktales and myths involving rhododendrons and also about the survival of an ancient hieroglyphic script. Rhododendrons also feature in literature, perhaps most famously in Daphne du Maurier's *Rebecca*, where the oppressive rhododendrons at Manderley are described.

Ninety million years ago the common ancestor of the Ericaceae plant family emerged with new interactions with fungal associates. Then 60 million years ago strings of pollen developed, facilitating pollination by insects. Recently DNA evidence has led to an extensive reclassification of **rhododendrons** and **azaleas** and the realisation that these two groups are not really distinct. They are now subdivided into *Rhododendron*, *Hymenathes* and *Tsutsusi* subgenera.

Rhododendrons may contain toxins and a few drops of nectar have been reported to cause staggering and disorientation on occasion. They may also sometimes be toxic to sheep and cattle. Toxic honey from rhododendrons has been known since ancient times in the Mediterranean area.

*Ledum* has now been recognised as a rhododendron (*Rhododendron tomentosum*) and this species is quite widespread in Eastern Europe. There it has been used medicinally and to produce an intoxicating drink. The similar plant in Scotland is Labrador Tea (*Rhododendron groenlandicum*) and this North American species was probably introduced to produce an ale.

*Rhododendron ponticum* is now very frequent in the wild in Scotland, especially in the west and is seriously invasive. It occurred in Ireland before the last ice-age but is an introduction in Scotland. It can produce dense impenetrable thickets and is difficult to control. It may have become more invasive





after the introduction of genetic material from another species of rhododendron. However, some people appreciate the floral displays it creates.

Brian Ballinger

## COLOUR RINGS AND TRAVEL STORIES

Anne Reid - 11th December

Anne gave a fascinating account of her observations of individual birds as identified by the rings on their legs. Most of the sightings were of live birds, although a few related to dead birds found on her outings.

The introduction of colour rings in recent years has made it much easier to identify individual living birds, although good eyesight and an adequate camera help. If the BTO (British Trust for Ornithology) website is consulted it is possible to report a sighting to the ringer and to then get a list of the sightings of individual ringed birds, which has provided some interesting information.

Many of Anne's observations have been in the local area, including her garden, the Dightly, Trottick Ponds and Stobsmuir and many local beaches. She started out with **swans** and has followed some over several years. In winter the presence of ice helps as water birds' legs are more clearly visible on ponds.



Several ringed species of **gull** followed, **lesser black-backed, black-headed, herring** and **Iceland**. Some had been to Norway and others to Portugal. Some birds cover considerable distances in a day.

There was a migrant **greylag goose**, which had gone to and from Iceland a number of times, and also a **curlew** which had been ringed in Finland and was photographed over several years through the fence at Monifieth High School.

**Sanderlings** had gone further, one to East Greenland and another to near Reykjavik in Iceland. One **oystercatcher** had been ringed in Tromsø in north Norway and wintered at Tayport, while a second

one at Carnoustie was ringed in the Angus Glens.

A dedicated band of bird ringers and observers has produced a wealth of information about the movements of birds in our area, which has added to our knowledge of these species.

Anne ended by recommending the BTO Garden Birdwatch scheme and we then moved on to Christmas refreshments, kindly provided by some of our members.

Brian Ballinger

## MEMBERS' ARTICLES INTERESTING SIGHTINGS

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.

One of the main features of the year was the 'beast from the east' storm, which brought heavy snow at the end of February, followed by a similar storm two weeks later. These contributed to a very late spring, which was then followed by a long, hot, dry summer.

This year, most of the records seem to be of birds - perhaps there will be more variety next year. Interestingly, nobody appears to have looked at much natural history in the second half of the year - or did you all forget to send it to me!! Ed.

Margaret Bainbridge	MB	Monifieth
Brian Ballinger	BB	Dundee, West end
Jim Cook	JC	Broughty Ferry
Mary Galloway	MG	Dundee
Alban Houghton	AH	Broughty Ferry
Anne Reid	AR	Monifieth
Mike Sedakat	MS	Dundee, West end
Brian Williamson	BW	Dundee, Law area



**1st January** Eighteen bird species visited our garden on New Year's Day, including a **redwing**, female **blackcap**, five **siskins**, a calling **bullfinch** and all the tit family including **long-tailed tits**. BW.

**4th January** Caught a glimpse of a large and handsome **fox** in Dawson Park in the early evening as it crossed under the lights along the path to the clubhouse. It's the first I've seen in the area for a good while, although they can be heard fairly often. JC.

**8th January** At the west end of Forfar Loch I noticed a small swirl in the water where the burn runs out under the dual carriageway. A pause revealed an **otter** swimming away from me under the bridge arches which, to my surprise, briefly showed as two **otters**. They were hunting and kept submerging and surfacing, very rarely both being visible at the same time. A delightful encounter. AR.

**9th January** On a sunny and relatively mild afternoon, a **blackbird** was singing lustily from atop a wind-vane on a high roof along the road. Soon after, the "tee-cher" territorial calls of **great tit** could be heard nearby, followed by a few **pigeon** coos. Later a magpie could be heard 'rattling' in the vicinity. Could they be the first signs of spring? JC.

**20th January** A winter trip (1°C) to the Montrose Basin, on a rising tide, gave wonderful views of waders (**snipe**, **black-tailed godwit**, **curlew**, **oystercatcher**, **redshank**, **golden plover**, **lapwing** and **greenshank**) and ducks (**eider**, **pintail**, **tufted duck**, **wigeon**, **goldeneye**, **red-breasted merganser**, **shoveler** and **teal**) but a walk to the Shelduck Hide gave me my best views ever of a flock of 53 **twite**, nicely lined up on the overhead wires in full sunshine! BW.

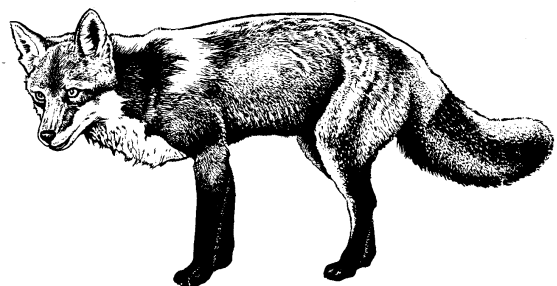
**20th January** After the snowfall, I looked out in the early evening and saw, almost as expected, the footprints of the local **fox** making its regular round - right past the back door. JC.

**21st January** Over 50 **redwing** and **fieldfares** feeding on *Cotoneaster frigidus* berries in our neighbour's garden. BW.

**26th January** After a night of hard frost followed by a lovely sunny and almost warm morning, numbers of birds were singing their hearts out along the Miley footpath. **Great tits** could be heard in the trees around about, along with calling **blue tits**, a few **sparrows** and **pigeons** and one or two **dunnoch** calls. A little later a **blackbird** joined in further along the track, and the rattle of a **magpie** echoed around. With any luck, spring is on the way. (A bit premature! Ed.) JC.

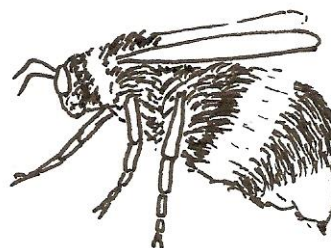
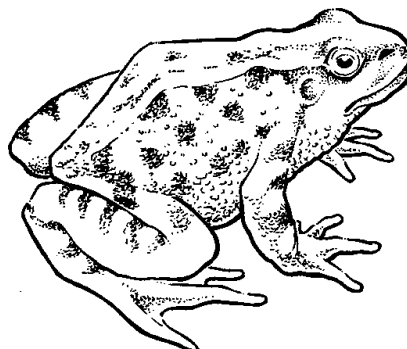
**6th February** On Law Crescent (2°C) after snow I counted over ten male **bullfinches** and one female on the cherry trees, **goldfinch**, **blue tit**, **great tit** and **coal tit**, **blackbird** and other species. BW.

**7th February** Soon after 8 pm, a smallish, rather dark **fox**, probably a yearling, appeared at the foot of the drive, under the street light, stopped for a brief moment, caught sight of me, whirled around and vanished. There seem to have been more **fox** activity in the neighbourhood this year; has anyone else noticed many more sightings? JC.



**12th February** On a bright and sunny although chilly morning, while trying to saw a log in the garden I was distracted by a loud rasping calls of an angry **great tit** calling from a leafless bush and then saw the object of its ire - another **great tit**! They churred and chased each other around for a few minutes, a very welcome diversion from the job in hand. Presumably they were competing for breeding and feeding territories. JC.

- 15th February** A **goldcrest** feeding on fat balls in the garden. One was seen on the same feeder the previous day and also a couple of times earlier in the month. **Goldcrests** are in my garden all year round but usually feeding on the **Norway spruce** and **cedar** trees. AR.
- 18th February** A walk from Tayport to Morton Lochs NNR gave me the pleasure of viewing from the hides **little egret**, **coot**, **tufted duck**, **mallard**, **teal**, **wigeon** and **little grebe**, and of hearing two **great spotted woodpeckers** drumming, and **jays**, **robins** and a **treecreeper** and other woodland birds. BW.
- 19th February** **Frogs** have arrived in the garden|pond but there is no spawn yet. BB.
- 24th February** On the Newtyle Railway Track from Rosemill saw **great spotted woodpecker**, **reed bunting** male, over 100 **linnets**, **yellowhammer**, **chaffinches**, **fieldfare** and a **sparrowhawk**. BW.
- 27th February** Awoke to snow, with more through the day. Bird feeders very busy. AR.
- 28th February** About 80 **fieldfares** in the garden. BB.
- 28th February** 13 **fieldfares** in a garden across the road from me. The snow has brought them in from the countryside. AR
- 1st and 2nd March** A flock of over 30 **fieldfares** in and around my snowy Dundee garden, some eating **cotoneaster** berries and seed mix. No sign of **redwings** with them but there seems to be one **mistle thrush**. MG.
- 8th March** A walk from Tayport Foreshore to Morton Lochs beside a stubble field found about 15 **mistle thrushes**. BW.
- 11th March** A large quantity of **frogspawn** in the garden pond - it has probably been there for a couple of days. Approximately 50 **frogs** counted. BB.
- 20th March** Early in the morning, at about 3.30 am - or 4.30 am because the clocks had just gone forward into summer time - a lone **blackbird** began singing not far away. A short time later a **robin** joined in. JC.
- 20th March** At Letham Pools, Fife, found nine duck species (**gadwall**, **teal**, **shelduck**, **mallard**, **wigeon**, **tufted duck**, **goldeneye**, **pochard**, **shoveler**) and amongst more than 400 **pink-foot geese** found one **Greenland white-fronted goose**. BW.
- 23rd March** Heard my first calling male **yellowhammer** of the year, the typical "little-bit-of-bread-and-no-chee-eeese" notes ringing from the edge of Carsegowniemuir Quarry in Central Angus on a mild and sunny afternoon. A number of the "tee-cher" territorial calls of **great tits**, along with singing **blue** and **coal tits**, **robins**, a **dunnock**, **blackbirds**, and a distant **song thrush** could also be heard in the quarry plus, praise be, a **skylark** over the field to the north. JC.
- 24th March** A **buff-tailed bumblebee** queen at the flowering **heather** in a neighbour's garden. First of the season. AR.
- 25th March** A large, probably queen, **white-tailed bumblebee**, on **crocuses** at 13.45. MB.
- 30th March** In our garden with 3°C and sleet the **blackcaps** and a pair of **bullfinches** visited along with **tits** and other garden birds. BW.
- 1st April** A rare sunny day amongst rain, wind and snow. Some **snowdrops** and **crocuses** still in flower due to cold weather and the **daffodils** just opening. One of my garden **goldcrests** seen feeding on the fat balls again and, later in the day, singing loudly. AR.
- 2nd April** In our snow-covered garden three **jays** appeared. BW.
- 5th April** Heard my first **chiffchaff** of the year along the Lade Braes in St Andrews on a rather dull and chilly afternoon. The bird seemed to give only a couple of weak calls - perhaps just clearing its throat. JC.
- 7th April** Suddenly the temperature rises to 12°C at Loch of Lintrathen and I hear my first summer migrant singing - a **chiffchaff**. In the marsh beside the path there was plenty of **frog spawn** and croaking **frogs**. BW.
- 8th April** A walk east from Cellardyke, Fife gave my first sighting of **swallows** (2) and a pair of **skylarks** with ascending song. BW.
- 8th April** Three **chiffchaffs** were heard calling at separate locations along the Miley SWT Reserve in Dundee on a lovely spring morning. Two were perhaps just tuning up, only a few calls, but



one was 'giving it the full laldy' a short distance north of the Harefield Road bridge and there could have been more further along. Can spring be here at long last? JC.

**13th April** At Monikie Country Park saw **little gull** flock (c 50), first sighting of **sand martin** and a **swallow**. BW.

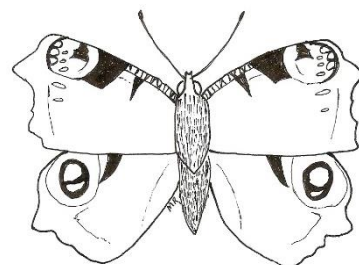
**15th April** A small skein of what sounded rather like **greylag geese** flew over Forfar in the late afternoon, perhaps heading to Forfar Loch. JC.

**18th April** At Kingoodie foreshore heard first **willow warbler** of spring and a **chiffchaff**, and counted about ten **peacock butterflies** in the meadow grasses north of railway. BW.

**19th April** Just as it was getting too dark to see clearly, two large skeins of what sounded like **pink-feet geese** flew high over Broughty Ferry heading in what seemed to be a north-westerly direction. Were they migrating back to their northern breeding grounds? JC.

**19th April** A **peacock** has just fluttered by. MB. (Butterfly, I presume! Ed.)

**20th April** Saw my first **peacock butterfly** of the year flitting around near pond 1 in Carsegowniemuir Quarry - and then a short time later another one further along and upwind. Later the same day, heard the first **willow warbler** call of the year and then, even later, my first **swallow** of the year. The Youngs reported that it had arrived at the cottage steading the day before. JC.



**27th April** A **willow warbler** was singing in our garden birch tree. BW.

**3rd May** At the Eden Estuary at low tide I was surprised to see an **osprey** perched on the mud, and a flock of **black-tailed godwits**, some in summer plumage, and my first **common sandpiper** of summer. BW.

**15th May** A rewarding trip up Glen Esk with Alban Houghton gave 27 bird species including **whitethroat**, **kestrel**, **cuckoo** (three heard), **wheatear**, **lapwings** with chicks, **mistle thrush**, **common sandpiper** and **dipper**. Also a **slow worm**. BW.

**17th May** My first male **orange-tip butterfly** of the year was flitting, in warm sunshine, past the low ground between ponds 2 and 3 in Carsegowniemuir Quarry. JC.

**20th May** On a warm day a bright male **orange-tip butterfly** was flitting around along the Dighty, close to the Trottick Ponds local nature reserve. A short time later a **green-veined white butterfly** was seen in the same locality. JC.

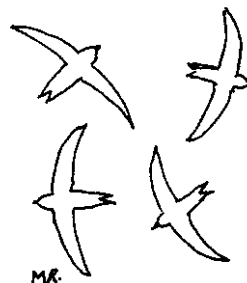
**24th May** On a mild but dull evening I heard and caught sight of a small flock of **swifts** over Forfar, my first sighting of the year. JC.

**7th June** On a warm sunny day, I was standing quietly on back-path 3 at Carsegowniemuir Quarry when a large and handsome **stoat** leaped out of the **rosebay willowherb** and landed on the path less than 10 metres in front of me. It was surprised to see me, managed to turn round in mid-air with a lovely fluid motion on the next bound and in one further leap had returned the way it had come. The whole episode lasted only a second or so but left a wonderful memory. I had wondered why a young **rabbit** had raced out of the same large stand of **willowherb** only a minute or two before but obviously it had just smelled or heard the hunting stoat. JC.

**22nd June** From our garden saw my first **swift**. BW.

**24th June** On The Law summit saw a **painted lady butterfly**. BW.

**11th July** An **osprey** sighted, by a reliable friend, at 7.45am from the footpath on the sea side of the Monifieth caravan site. It caught a fish, probably a 1¼ lb **sea trout**. It turned the fish round so that the head pointed forwards and flew off in the direction of Fife. MB.



**18th July** A few screams from overhead made me look up from the garden in Broughty Ferry and there was a small group of one of the most iconic birds of summer. The curved wings of three or four **swifts** pushed them speedily through the air high overhead and all the while they screamed to each other - screams of joy, I hope, of such mastery of the air. (It was my only sighting this year of swifts over Dundee.) JC.

**20th July** Finally, it rained all morning after about five weeks of unremitting dry, hot weather. The last significant rain I can remember was on 16th June on the Nats outing to Blairgowrie. AR.

**31st July** At Loch of Kinnordy enjoyed watching **marsh harrier** family (2 adults and 2 juveniles) and a **sedge warbler** family feeding close to the Gullery Hide. BW.

**5th August** Visiting the Eden Estuary on a very low tide enjoyed a **knot**, **black-tailed godwit** (both species still in summer plumage), **redshank**, **lapwing**, **little egret**, **common sandpiper**, and

- two **ospreys**. The **buddleias** attracted **peacock**, **red admiral**, **small white** and three **painted lady butterflies**. BW.
- 19th August** At about 8am, a few harsh rattles outside announced a **magpie** in the garden; one of only a few sightings so far this year. JC.
- 1st September** I heard first singing **robin** of the autumn in our garden. BW.
- 14th September** **Great spotted woodpecker** and **long-tailed tit**, **coal tit**, **blue tit** and **greenfinch** visited our garden. BW.
- 24th September** Saw a **willow warbler** feeding on our wild **cherry** trees. BW.
- 30th September** While working at Carsegowniemuir Quarry an angry churring call attracted attention and, on looking up, saw what appeared to be large grey thrush-like bird flashing over. Was it the first **fieldfare** of the winter season? There were also several **jays** and a few late **swallows** still flying about. (The latter had departed for warmer climes, though, by the next Wednesday as the Youngs reported.) JC.
- 10th October** Heard my first **fox** of the season, giving off whining barks at intervals for about half an hour somewhere nearby at about 2 am. (I certainly wasn't going to crawl out of a nice warm bed to find out!) JC.
- 11th October** Four **red kites** and four **buzzards** spotted on the grouse moor above Glen Uig (off Prosen). Very unusually, given the prevalence of multiple **rabbit viruses**, the glen was riddled with **rabbit** burrows and their inhabitants. Hundreds of **pheasants** and **red-legged partridges** populated the glen too (game-birds or flying chickens?). We met a keeper holstering his rifle having just failed to shoot a **stoat**. He was alerted by its squealing **rabbit** victim. We also saw a lone **peacock butterfly**. AH.
- 24th October** A great spectacle at the Eden Estuary with five **little egrets** on show, over 1,000 **dunlin**, about 70 **scaup**, a **great crested grebe**, a family of **whooper swans** and several duck species. BW.
- 27th October** On Balgay Hill saw my first 'winter thrush' - a **redwing**, and also several **blackbirds** (with black bills feeding on rowan berries) and a male **bullfinch**. BW.
- 11th November** The **rowans** in a neighbour's garden were being devoured by a mixed flock of over 100 **redwings** and **fieldfares**. BW.
- 16th November** Saw two **woodcocks** at separate locations in Carsegowniemuir Quarry soon after each other in the afternoon, the first this autumn. JC.
- 16th November** At Clatto Reservoir enjoyed the sight of about 25 **goosander**, **coot**, **mallard**, **teal**, **goldeneye**, **tufted duck** and **black-headed gulls** on the water, a **grey wagtail** on the shoreline, and in Clatto Woods saw **bullfinch**, **goldfinch**, **yellowhammer** and a single **brambling** with **chaffinches**. BW.
- 19th November** Was woken at around 6 in the morning by a very loud harsh screech very close outside. It was calm and quiet and I slowly realised that it must have been a **heron**, out for an early breakfast perhaps in a garden pond. Possibly it had been standing on the roof or perched in a nearby tree. JC.
- 22nd November** Our first **blackcap** (male) of winter visited the fat feeder in the garden. BW.
- 6th December** My **venus fly trap** caught a **two-spot ladybird** which had come inside to hibernate. MB.
- 10th December** At Montrose Basin enjoyed watching **coal tits**, **chaffinches** and a **brambling** feeding on beech mast and understorey at The Lurgies. As usual, several **little grebes** dived near the Old Pier. From the Visitor Centre I watched over 50 **pintails**, a **snipe** in the scrapes, and **shoveler** and **shelduck** dabbled near Rossie Point. BW.
- 17th December** West of Kingoodie, north of the railway, I found a mass gathering of **fieldfares** and **redwings** (probably more than 500) in old **ash** trees before they made regular sorties to take **hawthorn** and **rowan** berries in the neighbourhood. There were a few **linnets** and **goldfinches** in the same trees. BW.
- 24th December** I spotted an adult **ring-necked parakeet** at 2pm, Magdalen Park, Magdalen Yard Road. I heard it first then looked up as it was flying overhead. MS.





## THE TAY WHALE 2018

On Wednesday 21st March an adult **sperm whale** was seen in shallow water near Monifieth, later in the afternoon it stranded on the beach at Monifieth. It was reported around 6pm and volunteers from the British Divers Marine Life Rescue attended. Unfortunately the whale died. The coastguard and RNLI were called out to search in case more whales were in distress in the Tay or had stranded along the coast, however nothing was found.

As in all such stranding in Scotland the whale was reported to the Scottish Marine Animal Stranding Scheme and it was decided that an autopsy of the whale would be carried out. (The SMASS has the responsibility for examining any royal fish stranded around the Scottish coast, although it is the responsibility of the local authority to safely dispose of the carcass.)

"The Scottish Marine Animal Stranding Scheme (SMASS) has been in operation since 1992. It is part of the Cetacean Strandings Investigation Programme (CSIP), and is funded by the Scottish and UK governments. The project aims to provide a systematic and coordinated approach to the surveillance of Scotland's marine species. It collates analyses and reports data of all **whales, dolphins and porpoises** (collectively known as cetaceans), **seals, marine turtles, and basking sharks** that strand on the Scottish coastline. Investigation of stranded marine animals can yield substantial information on the health and ecology of these fascinating but little understood species, while also helping to highlight some of the conservation issues they may face. Post-mortem examinations provide unique insight into metrics such as age structure, sex, body condition, cause of death, pollutant levels, diet, disease burden and other aspects of the general health of marine mammal populations in the seas around our coasts." (Information from SMASS website: <http://www.strandings.org/smass/about/> )

The whale was 13.7m long and estimated to weigh about 35 tons and this meant that the autopsy would have to be carried out on the beach. It was important that this was carried out quickly because many of the tests had to be performed on relatively fresh tissue. There was another reason for speed because the body was considered a biohazard and the longer it was left on the beach the greater the risk to the public.

Vets based at the Scottish Rural College campus in Inverness arrived on Friday 23rd along with staff and students from St Andrews University Sea Mammal Research Unit. Discussions were held with the Barry Buddon training area (the whale stranded within the boundary of the live firing zone), Angus Council, Scottish Natural Heritage and Scottish Environmental Protection Agency for permission to carry out the autopsy and for the disposal of the remains (the whale stranded inside the boundary of the Barry Buddon SSSI). It was decided that the whale should be buried on the beach where it would decompose naturally, returning nutrients to the estuary ecosystem.

The whale was measured and examined for signs of physical injury. There were some shallow marks on its head which indicated that it had probably been fighting with another male, but there were no obvious major injuries. As sperm whales are pelagic, living in the open ocean, it was thought that the whale had swum into the North Sea and, on realising that it was lost, instinctively tried to swim to the west.

Samples were taken from the whale's blubber. The jaw was removed for donation to the National Museum of Scotland and some teeth removed. (The teeth can be sampled for minerals which give an indication of where the whale has lived.)

The tide was starting to come in and it was decided to move the whale up to the high water mark before taking samples of the whale's stomach contents and internal organs. Unfortunately there was no digger available with the power to move the whale and some impromptu work was carried out





before the whale was covered by the tide. It was decided to wait until the next day's low tide to carry out major work. It eventually took three diggers to move the whale to the top of the beach, samples were collected from the stomach, internal organs and even the brain, unfortunately the whale had already started to decompose and these samples could not be analysed apart from the spinal fluid and this will be analysed to improve our knowledge of sperm whales. Although there were two or three small squid beaks in the stomach, the stomach was otherwise empty suggesting that the whale was starving. The final autopsy report suggested the cause of death was injuries caused when the whale stranded

The whale was finally buried on the beach near the high water mark.

David Lampard

## A RARE BEETLE

28th May

We had a walk in Montreathmont where we met Brian Williamson. My daughter, Pauline, spotted a red beetle in flight and we had to wait half a minute, tracking it until it landed. Pauline generously offered me first shot (with the camera) and I commented it wasn't up to much as its pronotum was disfigured! Later, Pauline sent through the identification - *Dictyoptera aurora* (apparently rare), with the description stating "pronotum decorated with sunken pits". It also says that it is confined to Caledonian pine forests, which, as you know, we are actually several hours drive from. Thankfully I hadn't deleted the images! I'd have been kicking myself!

Stevie Smith

Note: The pronotum is a prominent plate-like structure that covers all or part of the dorsal surface of the thorax, especially in beetles. Ed.

See photo on page 25

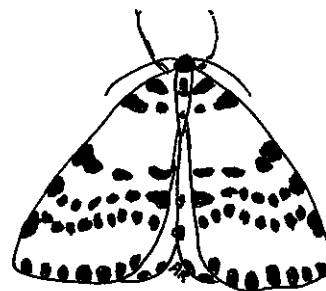
## BIRDWATCHING IN THE OUTER HEBRIDES

A long-held plan to visit the Outer Hebrides finally was possible this year. Adrian and I decided to start at the south end of the chain of islands in early July by sailing into Lochboisdale from Mallaig on the Calmac ferry *Lord of the Isles*. As the ship docked and we waited to be called to the car deck in South Uist, I was delighted to spot two **white-tailed eagles** circling on thermals above the hill to the north - a good omen for the visit that was to include some strenuous walking on remote hills. We based our visit at the north east end of South Uist on Loch Carnan - low-lying countryside riven by sinuous sea lochs and small freshwater lochans that were covered in white **water lilies** and **bogbean**. Short evening walks from the hotel were memorable for the frequency with which I saw hunting **hen harriers**, **short-eared owls**, **stonechats**, **meadow pipits**, **wheatears** and **oystercatchers**.

Our first experience of the machair started on a damp morning at Drinsdale by Loch an Eilein in South Uist. After parking the car a flock of excited **lapwings**, **oystercatchers** and **starlings** suggested that this disturbance may be caused by raptors, confirmation came as a male **hen harrier** swept across the barley field close by. We set off across the strip-cultivated fields of flowering machair towards the beach to the constant songs of **skylarks** overhead, calls of **oystercatchers**, **lapwings** and a few **curlews**. After dropping down from the high dunes to a perfect white sandy beach we watched **arctic terns** taking **sand eels** from the water, **ringed plover**, **starlings** and **pied wagtails** looking for

morsels along the strand line, and on the track back to the car enjoyed small flocks of **linnets** and **greenfinch**. From Loch Carnan we climbed Beinn Mhor, a fine ridge over-looking all of South Uist, and Ben Corodale. We disturbed **golden plover** annoyed at our intrusion of their nesting terrain, a **raven** near the summit, and several **meadow pipits**. **Magpie moths** (below) were numerous amongst the **heather** and across the extensive marshes (rather dried-out this season) were **meadow brown butterflies**.

Heading north across the causeway to Benbecula we visited the airport and I was delighted to see stands of **pyramidal orchids** (*Anacamptis pyramidalis*) amongst **kidney vetch** on the roadside. Another causeway and we were entering North Uist. At Carish we stopped the car to watch a female **hen harrier** cruising low along the marshy inlets as we took the coast road to the Balranald RSPB Reserve. The reserve is much larger than we expected, and mindful of a ferry booked later that day to Harris, we wished we had more than two hours to explore the machair, rocky coastline and white sandy beaches at more leisure. **Arctic terns** were feeding young, and attacking us from above, small flocks of busy **starlings** were abundant on the shoreline and on the ground grazed by cattle. **Dunlin** and **redshanks** were feeding juveniles by the lochans and **sand martins** and **swallows** patrolled above. I spotted a **common blue butterfly** as we made our way back to the reserve visitor centre.



We saw **black guillemots**, **eider**, **arctic terns**, **gannet** and **shags** on the ferry from Berneray to Leverburgh in South Harris as it picked its way through a rather contorted sea lane, but I was disappointed not to see divers or shearwaters on any of our three ferry crossings. The weather deteriorated in Harris and Lewis so after climbing Tiorga Mor in thick fog we decided to explore the north of Lewis, including the Butt of Lewis. This was a good decision because the wildlife on the north peninsula was excellent. As we watched the **fulmars** glide to their nests on the precipitous cliffs near the lighthouse, I suddenly was aware of five **great skuas** flying above. **Shags**, **guillemots** and some **puffins** flew low across the churning sea nearby. **Oystercatchers** called constantly amongst the rocky chasms (echoing like car alarms) and long 'trains' of **gannets** cruised very close to the headland, probably from a major colony on the island of Sula Sgeir situated 41 miles to the north where traditional 'guga hunting' (culling juvenile gannets for food) is still permitted but highly controlled. Most of this headland consisted of close-cropped **thrift** but where fenced off from grazing sheep I found **ragged robin** and **hawkweeds**. There is a relatively new Local Nature Reserve at Loch Stiapabhat near the Port of Ness. It is situated around a lochan and extensive marsh and I was told by Tony Marr, a local bird recorder, that it is well worth a visit because during migration times in spring and autumn many unusual or rare birds can be seen from the new bird hide.

The return journey from Stornoway to Ullapool on the new Calmac ferry *Loch Seaforth* was a most enjoyable way to cross The Minch, and we had the added excitement of the coast guard helicopter performing a practice winching above the speeding ferry boat in mid-crossing, as a school of **dolphins** surfaced nearby!

Brian Williamson

## NESTING HERRING GULLS

When a pair of **herring gulls** took up residence on our roof and started nest-building, I had very mixed feelings. I had started seeing adult birds collecting beakfulls of nesting material from the garden in early May and by mid May there was a nest built up between the roof ridge and the small chimney - a remarkably small and apparently precarious place. By about May 20th one of the adults was sitting on the nest and the second was standing, protectively, on the roof ridge nearby.

On June 18th I found a broken eggshell on the ground which looked hatched, not predated, but could not see a chick as an adult was still sitting tight. The first glimpse of the two small chicks was on 22nd June when they were wandering precariously along the roof ridge with a parent in close attendance. This parental vigilance continued for the next three weeks or so, but as the young grew bigger the adults did occasionally leave them apparently unattended. The approach of any threat, usually another gull, would result in the instant reappearance of the parent and a lot of noise! Interestingly, the adults never showed any aggression to me when observing from below.



It was very interesting to observe the tolerance of close presence of other birds to the nest, especially those which used the TV aerial, attached to the chimney, as a perch. **Woodpigeons, collared doves, feral pigeons** and anything smaller seemed to be ignored totally - presumably because they were not deemed a threat to the chicks. The local **crows** were not tolerated and were actually chased away early in the incubation and small chick stage. The **crows** then appeared to absent themselves, being quick learners and realising that they were not going to get an easy meal. **Jackdaws** seemed to be chased at first, but possibly because they were with the **crows**.

I started to find **crab** shells (several species) on the path beside the house as soon as the chicks hatched (we are less 500m from the Tay at Balmossie). To begin with, these had the contents pecked out - presumably to be fed in small pieces to the young. As they grew I stopped finding the shells and observed the feeding process. The adult would return with a full crop and the two demanding youngsters would beg for food and reach up to touch the adult's beak. Food would then be regurgitated and, if they were lucky, the youngsters would retrieve and swallow it before it rolled down the roof. Their capacity for swallowing large items seemed quite out of proportion to their size. Any item which did roll down was, somewhat clumsily, retrieved by the adult and taken back to the chick - the adults were a lot better at climbing up rather than descending the sloped roof!

It was as the chicks grew that the **jackdaws** became more frequent visitors to my garden. They would appear and quarter the roof for dropped morsels from this rather messy feeding procedure.

By late July the youngsters were fully feathered on the body and wandering far and wide on the



slopes and ridge of the roof. They also began to access the garage roof (more or less flat) by negotiating the two gutters at the point where the two roofs met. On 13th August the tail feathers were well-developed and much flapping was taking place along the roof ridge without the birds actually becoming airborne. The following day both juveniles were on the ground, effectively running round our garden, despite being able to

fly short distances. They continued to behave like delinquent teenagers for three days, vandalising potted plants and pecking large strips of bark off the **lilac** tree, though they did manage to get back on the garage roof on the evening of 18th August (possibly from next door where the ground level is higher).

The following day, when I returned from the Barry Buddon outing, I found one juvenile in the garden and a tell-tale scatter of feathers near the trees. The feathers were definitely juvenile herring gull and the evidence of plucked feathers in a heap, along with a couple of fragments of intestines, strongly suggested that a **sparrowhawk** was responsible. Despite the large size of the gulls they had shown no fear of anything or anybody up to that point and would have been easy pickings for the **sparrowhawk**. The remaining juvenile was much more wary after that!

For the sake of the roof, I got the slater in to gull-proof the chimney by adding bird spikes. The adult **herring gulls** continue to sit on the roof ridge as their territory, but it remains to be seen what will happen when the urge to build a nest takes them.

Anne Reid

## SPINDLE ERMINE MOTHS

In early June I noticed that the **spindle tree** *Euonymus europaeus* in my front garden was being stripped by web-building moth caterpillars. David Lampard identified them as **spindle ermine moth** *Yponomeuta cagnagella*. Unfortunately, while I was away, a well-meaning neighbour, concerned that the caterpillars would kill the tree, gathered up the webs and put them in the compost! However, he must have missed some, because later in the summer, I saw a few adults, a white moth with black spots. The NBN Atlas shows just a handful of records from Scotland, with none from Tayside <https://species.nbnatlas.org/species/NHMSYS0021142458> (a cluster of records in Shetland must

surely be an error). The species is probably more widely distributed than shown, although **spindle** itself is not a common tree in Scotland, especially north of the Forth.

Colin McLeod

## RECORDING STRATEGY

When? How Often? Where? Which Way? Notebook? How many recorders?

Many opinions have been expressed about the best way to approach recording, but there do not seem to have been many attempts to evaluate the process. This article describes the limited attempt of one botanical recorder to assess the methods used. A number of small studies are described, all carried out in Easter Ross (VC106).

### 1. When? Is winter recording worthwhile?

Two short 30-60 minute visits were made to 10 varied sites in Easter Ross following a standard route of approximately 500 metres. The first visit was made in January or February and the second in June or July.

In winter 334 records were made, noting 95 species sites not repeated in the summer.

In summer 529 records were made including 315 not repeated in the winter.

This suggests that winter recording may have a part to play but only as a supplement to summer recording. Plants may be obscured by other vegetation in the summer and some species may die down early. Longer summer visits may have produced longer lists but time is often limited at that time of year. The Vegetative Key is very helpful in winter (Poland and Clement 2009).

### 2. How Often?

Four locations were visited three times in a two week period. One 1 hour visit and two half hour visits were made to the same sites in random order. The half hour visits only visited half the site on each occasion.

Eight short visits to the four sites yielded 277 records and four longer one hour visits produced 231 records.

This suggests that two shorter visits may produce more, although this takes no account of travelling time to the sites. However it may be possible to cover several squares on one occasion. Light and weather conditions may vary and plants can change even in a short period.

### 3. Where? Monad or Tetrad?

In recording for the botanical atlas, recorders are asked to cover areas to at least tetrad (2km x 2km square) level. However, increasingly, most botanical records are made to a least monad (1km sq) accuracy.

The present survey attempted to determine whether a three hour visit to one monad in a tetrad or a three hour visit to all the four monads in the same tetrad was more effective. The most favourable looking monad was selected for the single monad visit. Visits were made in random order.

The monad visits produces 135 extra records not seen on the tetrad visit and the tetrad visits noted 120 extra species records not made on the monad visits.

This suggests a possible advantage to a more intensive survey of one monad if time is limited, although the trend is fairly small, and also no information is obtained for the wider area.

### 4. Which way? The way back?

Six varied linear sites of approximately 600 metres were visited in the autumn.

A total of 155 records were made on the way out, but an extra 41 species sites were found on the return journey along the same route. This suggests that recording should be continued on the return journey, when plants may be seen from a different angle and in different light.

### 5. Notebook or card?

Standardised recording cards are available for some species groups, listing those organisms likely to be found in that area, and they are widely used. Time is often limited when large areas have



to be covered and we should try to make the best use of it.

Four sites were assessed for half an hour each way, using a notebook and card alternately in random order.

The notebook method yielded 234 records and the card 200.

This suggests a notebook advantage for this particular recorder but this may reflect his problems with small print rather than a true effect.

The other advantage of a notebook is that it can be more discreet if a suspicious landowner is encountered.

#### 6. How many recorders?

It was not possible to set up a systematic study of this but a much recorded square (Craig Wood, Dingwall) was assessed.

Since 2000 there had been 13 visits by one recorder (some brief) and 10 by groups.

241 taxa had been recorded. 118 were noted by both single recorders and groups, 86 by groups only and 37 by single recorders only.

So more species were found by groups, as would be expected, as more eyes generally yield more records and different people often spot different things.

However this is not conclusive as the time spent was not matched and there were many other variable factors

Conclusion This group of studies must be looked at with extreme caution as they reflect the experience of one person and may not apply to others. They are also very limited in scope and many were undertaken in the autumn outwith the main botanical recording season.

These findings only relate to vascular plants so may not necessarily apply to other species groups.

Nevertheless I suggest there is a case for those undertaking recording to think about evaluating their methods to seek the most efficient and fruitful outcome.

Brian Ballinger

## A JULY JAUNT IN A PERTHSHIRE GLEN

Driving up the glen we were greeted by a **common sandpiper** by the burn and a retreating **wheatear**. Our party of retired walking club buddies were all set to walk the ridge of a surprisingly green glen.

Along the uphill track a couple of **mountain hares** lolloped along ahead. **Red deer** hinds with calves bleated at us from the slopes as they moved away. Later, on the ridge, a similar sized herd of mainly stags in velvet avoided us too. As we reached the bealach dozens of **dark green fritillaries** skittered about the slopes. Fortunately the bright sunshine and a soft breeze kept the **midges** away.



As we lunched a pair of **eagles** with their youngster soared up out of the glen and were rapidly specks in the sky. **Common rock-rose** really was common on the hillside. Despite this being the food plant of the **northern brown argus** we did not see any.

On a more peaty stretch we found almost Scandinavian quantities of **cloudberryes** (left, photo Alban Houghton) - an occasional plant is the Scottish norm. The continental, long spell of sunny and warm weather we have enjoyed had clearly helped the flowers to set fruit.

Alban Houghton

## FAST FOOD

24th October

Earlier on in the day, Ronnie Young and I had seen a **heron** fly off from pond 2 at the quarry, the first time ever, but what was it doing there? There are no fish of any sort in that pond. I later found a number of small frogs in the grass around about, presumably what the heron had been after.

Then early in the afternoon I had just finished spreading the matting around a newly-planted tree some 25m south of the hide when a loud screaming burst from close by. I knew what it was, obviously a **rabbit**, but what was causing it to scream? A second or two later a rabbit came belting along back-path 2 from the direction of the hide and, when only about 15 feet away, saw me - and froze. A large **stoat**, which had obviously been in close pursuit, had to take a flying leap to avoid colliding with the rear end. The stoat performed a beautifully fluid pirouette and ended up facing its intended dinner. This started the rabbit out of its frozen state; it dodged round the stoat and continued at speed away along back-path 2 to disappear into the **willowherb** of area Z, still with the stoat close behind. There was a lot of rustling in the willowherb and then the screaming re-started, to die away fairly quickly. I left the stoat to its lunch - very fast food, indeed! And soon turned into slow food.

Much later in the afternoon, I was watching and hearing a **blackbird** in a berry-laden **hawthorn** across on the north side of pond 5 stoutly defending its feeding territory against a series of hungry **redwings**. There were lots of angry 'tickings' and sudden rushes, quite entertaining to watch! Then suddenly they all disappeared and I wondered what had happened. A moment later a movement in the corner of my eye caught my attention and there it was - a handsome female **sparrowhawk** perched on a bough of the large ash tree just a short distance from the hawthorn. It stayed there for 20 seconds or so and then flew off, almost casually, back along the length of pond 5.

Jim Cook

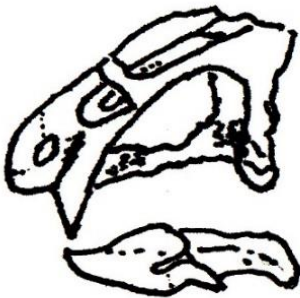
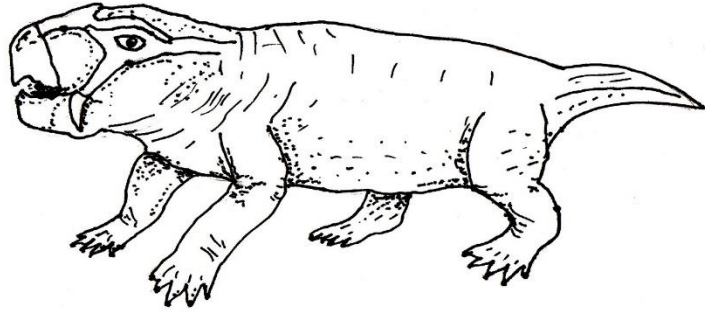
## FOOTPRINTS IN THE SAND - THE HOPEMAN SANDSTONE

On day three of the Elgin Weekend, we visited the small coastal town of Hopeman. On the foreshore, some of us explored the extensive rocky outcrops of the famous Hopeman Sandstone, looking for footprints and trails of the Upper Permian fossil reptiles, preserved within the sandstone. At the nearby bandstand, situated beside the coastal path, we found some rock slabs, with well-preserved reptile footprints, along with a helpful information board. Finding the footprints on the weathered and sea smoothed sandstone, not to mention seaweed and encrustations, proved challenging, but with the 'eye of faith' some identifiable reptile footprints were found.

During the 1990s, Open University earth science student and local resident Carol Hopkins, noticed previously unreported reptile footprints and trackways in the exposed Upper Permian sandstone at Clashach Quarry near Hopeman. Neil Clark from the Hunterian Museum, an expert on fossil reptile tracks including dinosaurs, was delivering a lecture to OU Science undergraduates at a Summer School in Edinburgh. Science undergraduate, Carol Hopkins, approached Dr Clark after the lecture and informed him about the trackways at Hopeman. The two then joined forces to investigate the tracks. By 1997, Carol had recorded more than 200 reptile footprints and tracks in the quarry, along with more than 100 fossil tail drags.

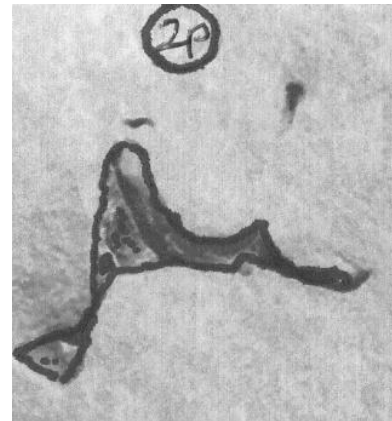
The re-working of Clashach Quarry, in order to obtain building stone to be used in the new extension of the National Museums of Scotland in Chambers Street, Edinburgh, obliterated some trackways, but revealed other interesting discoveries, including un-weathered, well-preserved reptile tracks. With the co-operation of the quarry owners and workers, some of these tracks have been rescued from further weathering and the slabs can now be viewed in the nearby Elgin Museum, as well as the Hunterian Museum in Glasgow and the Royal Museum of Scotland in Edinburgh.

In spite of the abundance of footprints and trackways, finding reptile skeletal fragments proved elusive. The quarry workers were asked to look out for cavities in the rock, and one large excavated rock slab revealed a cavity opening, which Neil Clark identified as a fossil mould. A smaller slab, containing the cavity was cut, and Neil arranged for the slab to be MRI and CT scanned in Glasgow. These revealed a 3D image of a near intact skull. The reptile species was identified as belonging to the dicynodont group of Permian reptiles, and was given the name *Gordonia traquairi* (reconstruction, above), a species which was also found in the Upper Permian rock at Cutties Hillock Quarry, West of Elgin. Dicynodonts, named for their distinctive tusks, were herbivores, which could grow up to two metres in length. The identification of *Gordonia traquairi* from the skull (below, left) enabled the researchers to date the rock as Upper Permian (Tartarian). This in turn provided a reasonably accurate assessment of the other reptiles in the Hopeman Sandstone, most of which were assumed to belong to the therapsid group of reptiles, which include the dicynodonts. However, it has proved impossible to identify individual species from the footprints alone.



Several reptile species had already been identified within the Upper Permian sandstone quarried at Cutties Hillock. Like the *Gordonia traquairi* from Clashach Quarry, many of these fossil remains were cavity moulds, the original bones having been dissolved, leaving the original fossil shape of the reptile remains. Before the advent of CT and MRI scanners, these cavities were filled with rubber before smashing the surrounding rocks, revealing a rubber cast of the mould. (The rock cavity, right.)

Amongst the reptile species identified at Cutties Quarry, are the pareiasaur, *Elginia mirabilis*, a model of which can be found in the Elgin Museum, the dinosauriform, *Saltopus elginensis*, and another dicynodont, *Geikia elginensis*. A cast of the *Gordonia traquairi* skull and a model of *Elginia mirabilis*, can be found in the Elgin Museum.



Jenny Allan

Photos (opposite) and sketches by Jenny Allan

Further reading:

New finds in the Hopeman Sandstone: Carol Hopkins, Open University Earth Sciences Undergraduate: OUGS Journal, Symposium Edition 1999, Pages 10-15

[https://ougs.org/files/ouc/archive/journal/OUGSJ\\_20\\_\(2\)\\_screen\\_res.pdf](https://ougs.org/files/ouc/archive/journal/OUGSJ_20_(2)_screen_res.pdf)

The Elgin Marvels – Neil D. L. Clark

<http://eprints.gla.ac.uk/30349/1/id30349.pdf>

(Also pages 16-18 OUGS Journal, Symposium Edition 1999: link as above)

Elgin Reptiles <https://www.revolvy.com/page/Elgin-Reptiles>





**Reptile Footprint (From the Hopeman Foreshore)**



**Reptile Footprint (From a slab beside the Bandstand, Hopeman)**



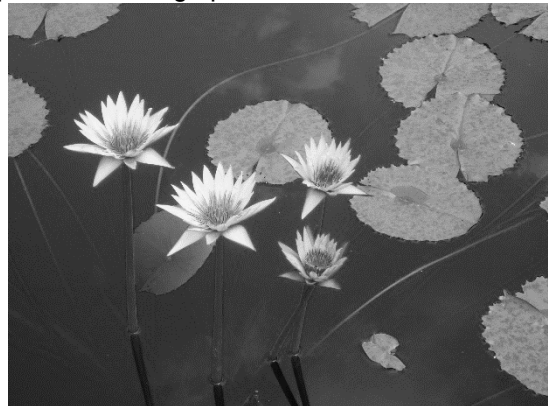
## ROCKY REFLECTIONS

A family wedding took me to Colorado in August, to a ski resort in the Rockies above Denver. The spectacular mountain scenery was very impressive, yet away from the immediate peaks, the overall feeling was not that different from the Scottish Highlands. A wide valley with mountains around it and a town called Fraser which was strikingly reminiscent of a small Aviemore, dedicated to serving the tourist trade with cafes, bars and shops servicing snow sports and outdoor activities.

The Scottish impression was increased on a day of drizzle and mist - not ideal tourist weather but very reminiscent of many highland days. In any event, those conditions were better than the ferocious thunderstorms nearby that produced **hailstones** large enough to smash car windscreens and kill a **vulture** in a local zoo. The local advice for those hiring cars in summer is always to park under cover – for shade from the heat and protection from hail – and to think about the damage large hailstones can do to cars when deciding which insurance package to get.

The wildlife too often had a familiar but slightly off-key feel to it. It was obvious to see how plants and animals were filling the same niches as here, but with slightly different leaf-shapes, plumage and voices. The highlight, though, was distinctly un-Scottish - **hummingbirds**! It felt truly incongruous to be sitting outside a café, surrounded by conifer-clad mountains yet watching a **hummingbird** dart between the flowers in the planters by the street. That, and the hand-sized **moths**, and the heat of the sun all showed that we were indeed a continent away. In fact we were at an interesting point of the continent. A small river we crossed was the young Colorado River that flows on through the Grand Canyon and on to the Gulf of California. Yet only a short distance away streams were flowing into the South Platte River and on to the Missouri and Mississippi before ending up in the Gulf of Mexico.

Travel took me through Denver which is famously known as the Mile High City because of its height above sea-level. Interestingly, though, the steps of the State Capitol have three separate markers of this notable height, a few steps apart, reflecting different official measurements over the years. The Botanic Garden there is much to be recommended, especially the **lily** ponds speckled with jewel-like flowers against the dark water, dyed black to suppress **algal** growth. (Photo, right, Colin Reid)



**Ground squirrels** on the way to Denver airport were a delight to see. Incidental sights on the long trans-Atlantic journeys added to the enjoyment of the trip - the desolate landscape of Iceland viewed on the way down to and up from brief stop-overs, the jagged mountain tops of East Greenland poking through the clouds, and the scenery of the west coast of Scotland on the way down to Glasgow.

Colin Reid

## A SPARKLING EVENING

3rd December

Coming back late, I looked up and saw a beautifully glittering clear and still star-lit night. I'd looked out for sightings of the **Leonid meteor shower** a week or two earlier but had been foiled by horizon-to-horizon cloud cover. Would I see any this evening? This time, however, the **plough**, looking more like a 'big dipper', hovered over the northern horizon with the 'W' of **Cassiopeia** nearly overhead and the three stars of **Orion's** belt marking the constellation's position well above the street lights to the south. The bright spotlight of **Sirius**, the 'dog-star', showed clearly above the southern horizon and, high in the west, I could even pick out the faint fuzzy patch of the **great nebula of Andromeda**, actually our nearest galaxy and the only one just visible to the naked eye on a good night, high in the west. All of a sudden I caught sight, out of the corner of an eye, of the streak of a bright **meteor**, almost a like fire-ball. Result! It was from the wrong direction for a Leonid, however.

Jim Cook

## GARDEN BIRDWATCHING

A long time ago, when my children were small, what had been a passing interest in birdwatching became more focused. Various school projects and Brownie badges had an element of bird identification and recording and we started, as a family, doing the once a year RSPB garden birdwatch. For a long time there was a notebook on the windowsill to write down our garden visitors and I looked out of the window, to see what was there, every time I went past.

In due course all the relevant Brownie badges were completed and we were no longer formally recording birds in the garden. There was a hole which needed to be filled. Somehow I found out about the BTO (British Trust for Ornithology) Garden BirdWatch survey and decided to join in. I was easily persuaded that this project was of long-term benefit and the data collected would feed into the BTO's extensive database. In addition, records from Scotland are always valuable as the number of birdwatchers is much lower than elsewhere in the British Isles.

To begin with the number of species I recorded in the garden every week was relatively low - only about ten to twelve. Whether this was because I wasn't very good at spotting things, or whether there were genuinely only a few birds using the garden was hard to tell. I did put food out but not in large quantities. None the less, I learned quite a lot about what visited my garden. Extra birds visited in cold weather and the only **yellowhammers** and **bramblings** ever seen were both when there was snow on the ground. Similarly, I once had **fieldfares**, feeding on **cotoneaster** berries. I also learned to look out for the juvenile **willow warblers** which always put in an appearance in August when dispersing and feeding up before their migration.

Over the years I started to spend more money on bird food, and broadened the selection available. In addition to basic peanuts and feeder seed I supplied black sunflower seeds and fat balls and, these days, I have even become so extravagant as to provide sunflower hearts (occasionally!). This increase in variety has coincided with my weekly count rising to somewhere between 16 and 20



species per week. **Woodpigeons** were once rare visitors, but these days I can often have five together waddling round under the trees. It does not help that they also breed in the tall trees in the garden. While there have always been a few **collared doves** (left) around, they have been joined by a couple of **feral pigeons** in the last year or two. I do not specifically put food out for the pigeon clan, but there is quite enough spillage from the seed feeders when a mob of **sparrows** descends to keep the ground feeding birds happy.

One winter, for no apparent reason, up to four **bullfinches** were daily visitors but they only appear very occasionally these days. Over the years **greenfinches**

have become a rare sight after the well-reported disease problems they have suffered, but **chaffinches** continue to be garden residents. I have a healthy **house sparrow** population which peaks in late summer and declines steadily, possibly due to **sparrowhawk** visits, over the winter. These are nowadays joined by **tree sparrows** for the winter months only - very welcome, but it makes counting them more difficult when they are all mixed up together.

The general rule of birdwatching is that 'anything can turn up anywhere' and this has been confirmed by some of the 'once only' birds which have visited. I once had a **woodcock** under the hedge when everywhere else was snow-covered. A female **redstart** hopped about, very robin-like, for just long enough for positive identification one spring and a **lesser whitethroat** perched in my **plum** tree,

still enough to get a couple of ID photos, one autumn. Also on migration, a **spotted flycatcher** and a **whitethroat** have appeared over the years.

The list still sits on the windowsill, ready for me to jot down what I see, and how many, and the Garden BirdWatch has just become part of my life. The list for birds in the garden is now over 50 species, but it becomes increasingly difficult to add to the total.

Recently, records of mammals, reptiles, amphibians and insects can also be made as part of the scheme. Weekly results are normally submitted online these days (having started out on paper) and there is an annual subscription of £17 to pay for the privilege of taking part in such an important survey - worth every penny! Why don't you join and become a part of this country-wide community of Garden BirdWatchers? Full details can be found on the BTO website: <https://www.bto.org/> or talk to me about it sometime.

Anne Reid

## RECIPE FOR A WILDLIFE WATCH

### Ingredients:

(Serves 4)

Lovely sunny and even warm day or a calm, mild evening, optional but definitely preferable  
Sun-cream, optional  
Clothing appropriate for the weather expected  
Footwear suitable for the rough and potentially damp ground  
Binoculars, camera, hand lens, nets, scoops and so on, optional  
Picnic meal of a variety of tasty items, essential  
Bottle or Thermos of something refreshing or hot, also essential  
Pack for carrying the smaller items above  
Light but comfortable folding chair or lounger  
Purdey the lurcher, provided, but optional (if you're quick enough to sneak past quietly!)  
Hide, provided  
Picnic table with benches, provided  
Barbecue plinth for those so inclined, provided but optional  
Quarry full of interesting wildlife (760+ at last count), provided - and don't forget, please, to fill in the records diary protected (against mouse nibbling!) inside a large flat tin in the hide

### Method:

Load up the car with the ingredients not already provided at Carsegowniemuir and head along to the quarry  
Keep your eyes peeled for sightings on the way along (but the driver watching the road!)  
Load the smaller items into the pack, pick up the chair/lounger and walk along to the quarry  
Once at the picnic table or in the hide, drop off the pack and set up the chair/lounger  
Depending on the wind and weather, either keep warm in the hide or marinate in sun-cream and baste in the sun, turning frequently  
Toss a variety of tasty items of food and drink into the mouth and mix thoroughly  
Apply binoculars, camera or hand lens, as appropriate, to the eyes  
Keep eyes and ears open for birds, mammals, insects and any and all other forms of wildlife  
Take a quiet walk around the path network, visiting the ponds, while watching and listening carefully for interesting sightings of all types – birds, flowers, mammals, insects and other invertebrates, amphibians, fungi and mosses  
Record all your identified sightings in the log book kept in the hide

**Serve** and enjoy as soon as possible with a side order of interesting wildlife sightings on the way there and around about.

Jim Cook