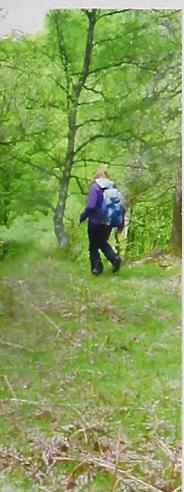


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Journal 2016

A record of activities
in 2015



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Edinburgh Natural History Society

Council elected October 2015

Honorary President	Elizabeth Farquharson
President	Peter Leach
Vice President	Joanie McNaughton
Secretary	Noeleen Donachie
Treasurer	David Adamson

Ordinary Council Members

Jean Long, Ptolemy McKinnon, Ian Schoolar, Sandra Stewart, Robert Wallace, Katherine White

Non-council roles within the Society Excursion Committee

David Adamson, Lyn Blades, Neville Crowther, Tom Delaney, Wilma Harper, Jean Long

Indoor Meetings Organiser	Joanie McNaughton
Website and Yahoo Group	Malcolm Lavery and Joanie McNaughton
Facebook Admin.	Wilma Harper MBE and Pauline King
Journal	Sarah Adamson (edinburghnats@gmail.com)
Audiovisual Support for Indoor Meetings	Peter Leach
Library and Equipment	Pauline King (paulinehome@msn.com)

The aim of the Journal is to create a snapshot of the Edinburgh Natural History Society in 2015.

Outdoor meetings are held throughout the year and publicised by programme cards and on the website. Indoor meetings are held monthly at 7.30pm on a Wednesday from September to April, in the Guide Hall, 33 Melville Street, Edinburgh, EH3 7JF. All are welcome and the meetings are publicised on the website.

edinburghnaturalhistorysociety.org.uk

Library

ENHS books and equipment are stored at The Wildlife Information Centre (TWIC) Offices, Vogrie. Contact can be made with Pauline King by email (paulinehome@msn.com)

Thank you to members who made contributions and helped to produce Journal 2016, especially, Peter Leach, Jean Long, Jackie Muscott, Sandra Stewart

Drawings	Sarah Adamson, Andrew Pearson, Jackie Muscott, Eric Perry, Katherine Edwards-White
Photographs	David Adamson, Sarah Adamson, Neville Crowther, Sarah-Louise Davies, Tom Delaney, Katherine Edwards-White, Laura Edwards-White, Roger Holmes, Peter Leach, Ptolemy McKinnon, Joanie McNaughton, Stan da Prato, Vivian Ramsay, Eunice Smith, Robert Wallace

Edinburgh Natural History Society
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President's piece

When it was suggested that I might like to stand for election as President of the Nats I had been a Council Member for a year and was told, 'being President is just like being on Council but with just a couple of other things to do'. Gullible I might be but I knew that wasn't really true, although I wasn't fully aware of exactly what would be required.

Since then I've been finding out, and what a great pleasure it's been!

As well as observing the work of Council and the Excursion Committee, and seeing the time, effort and administration which goes into arranging and running talks, excursions, finances, and diverse administrative functions, I've met an awful lot of very nice people who are often single-minded (some might say obsessive) about their wildlife interests. What they also do is share their knowledge, experience and enthusiasm with others and therein lies the great strength of the Nats. This Journal is a report and a reminder of the many things which have happened in 2015. We have lost some members, but we have also celebrated with others. There have been high quality excursions and we have had a diverse, interesting and instructive lecture programme. As well as these organised activities, there have been many less formal occasions when a meeting or a conversation has brought pleasure and knowledge, whether at a workshop, information exchange or a chance encounter.

Thanks to everyone for your contribution over the year. It is this participation which will ensure the Nats continues to be the force it is.

Peter Leach, President ENHS

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Social Media

The Facebook page, 197 members, has become increasingly active during the year with some interesting threads developing and photographs of plants, animals and often the sky. It has been a useful way to advertise information about outings and other activities. However, there has been a marked decline in posting on the Yahoo group by its 55 members. Postings gradually increased from 200 to 300 between 2011 and 2014, with a fall to 170 during 2015.

Glossary

Some common abbreviations and acronyms have been adopted and are listed here.

British Trust for Ornithology BTO	National Trust for Scotland NTS
Centre for Ecology and Hydrology CEH	Royal Botanic Gardens Edinburgh RBGE
Edinburgh Natural History Society ENHS Nats	Royal Society for the Protection of Birds RSPB
Forestry Commission FC	Scottish Natural Heritage SNH
Fungus Group of South East Scotland FGSES	Scottish Ornithologists' Club SOC
Local Nature Reserve LNR	Scottish Wildlife Trust SWT
National Nature Reserve NNR	Site of Special Scientific Interest SSSI

Obituaries

George McDougall

George died, aged 101, having been a member since the 1970s. His reputation for gaining access to previously inaccessible locations made his outings popular. He claimed not to know much about natural history but his love of the outdoor world was very deep-seated. Whilst at school he wrote the following article which summed up his character. Days before his death, he still asked about the Nats. George was a people person and had many friends in groups, with individuals and his adopted family. His talent for getting along with people will be remembered by those who have known him.
Sarah Adamson

A Day on Schiehallion

Scarcely a breath was stirring, and no clouds were visible in the clear blue sky as I set out one lovely morning in early July to cycle from Ballinluig to Rannoch.

Towards half-past eight I found my friend waiting for me at Lochan an Daim near the foot of Schiehallion. Leaving our cycles in the heather, we adjusted our haversacks and set out gaily to the foot of the hill. The first half-mile was easy going, as the heather was short and the climb gradual. Soon our difficulties began. The slope is covered with loose stones that slide away under foot, and we were often carried away with them. Of course this greatly added to our enjoyment, and we deliberately encountered difficulties.

Gradually the moor broadened out beneath us. When we rested, my friend, who knew the countryside very well, pointed out the various places of interest. On one occasion we caught a fleeting glimpse of a brace of ptarmigan as they disappeared among the rocks of the self-same colour as their plumage. As we neared the summit vegetation disappeared altogether, and we had to clamber over huge quartz boulders.

At last, out of breath, we sank down at the windswept cairn on the top. Beautiful hills and glens stretched out on every side as far as the eye could see. Rolling plains, rich fields and slow rivers on the one side contrasted with the dark frowning mountains, sunless corries and sounding torrents on the other.

Lawyers stood out in rugged relief against the western horizon. The snow still lingered on its slopes. Perhaps the most pleasing scene of all was that of Loch Rannoch and the Tummel valley. The ripples on the loch glistened with transient splendour in the sun's rays, and on either side hills sheltered it from the blast. The woods of Glen Tilt and Glen Bruar lay far beneath, and away behind in the forest of Atholl rose the five peaks of Ben-y-Ghloe.

Late in the afternoon we reluctantly made our way down the hill-side. On our way we found a great many strange ferns and plants in the rocks. Many of these were unfamiliar to us, but some of them

we recognised. The cloudberry and cranberry grew profusely in the higher regions, and in the marshes at the foot we were delighted to find the two insect-eating plants, the sundew and the butterwort.

The afternoon was well advanced before we reached our cycles, but the sunshine continued, and we had a glorious run home.

George McDougall, Form VI, Breadalbane Academy Magazine, June 1932

Betty Smith

Betty had been a member for about 50 years and president of the ENHS. She had, with her husband Bob, placed the Scottish Odonata on the scientific map by their pioneering research. Since 1959 they had led the development of the Forth Seabird Group, monitoring the bird populations of those islands. Together as a pair they had been conveners of several SWT reserves, where they continued to work until only a decade ago. A tiny lady with a big heart, she will be sadly missed by all who knew her.

Neville Crowther

What inspired her love of wild-life?

Betty's botanical interest as a child was inspired by her mother and aunt with visits to the RBGE, learning the names of plants as they walked. This continued over the years as her outdoor interests grew and led to her qualifying as a biology teacher.

Joining the ENHS emphasised the importance of all aspects of wild-life and meeting her future husband there, Bob, in the late 1950s ensured a life-time of study. Work in bird-life was certainly inspired by Bob who had been interested since a boy. He was mainly self-taught, without the help of coloured photographs, books, or computer-based guidance and became very proficient in all aspects of ornithology. Meeting George Waterston in the late fifties inspired both Betty and Bob to get into sea bird counts for the Forth Islands, taking a young lad, Bill Bruce, with them. He now continues to count and co-ordinate the annual results for the Forth Seabird Group.

Rachel Carson's book 'Silent Spring' published in 1962 made a big impact on Betty. The detrimental effect on the environment caused by chemical pesticides could gradually be seen in the Lothians, particularly with the diminishing numbers of farmland birds.

Dragonflies and damselflies came into their lives as a result of a friend displaying an unknown insect in a shoe box. From then on they were 'hooked' and travelled to many parts of the UK as well as abroad to study the larvae and adults and their fascinating life cycles. Betty became Scottish Recorder for *Odonata*. The entomologist, Professor Philip Corbet FRSE, a world expert on the order, *Odonata*, was much admired by Betty and she attended many of his talks. He emphasised the point that *Odonata* were 'bird watchers' insects' and certainly Betty paid close attention to this as the timing of emergence of dragonflies occurs as the bird life becomes quieter at the end of their breeding cycles. Their trips to the north of Scotland made a natural follow-on from the common bird census work in which they were both involved at the SWT reserve, Roslin Glen. Betty helped Bob in many SWT reserves in the Lothians, setting up an educational facility at Erraid, digging ponds at Milkhall Pond, planting Scottish native trees at Woodhall Dean and even repairing a dry-stone dyke there well after retirement age. She continued to work in the reserves into her eighties, generally inspiring many younger enthusiasts who continue the work today.

Lesley Fairweather

Margaret Watson

Margaret joined the ENHS in 1967 and was President in the mid-1970s. She and her husband lived in Edinburgh and attended many excursions including one to Majorca. Her outings were very popular as she was a good all-round naturalist but particularly good at identifying birdsong. She inspired one youngster, Andrew Lyburn, and this year he planted a black ironwood or Mutukuyio *Olea Capensis* at Kakamega Forest, the only sizeable surviving tract of tropical lowland forest in Kenya. In his blog, www.eastafricasafari.net, Andrew dedicated this tree thus; 'Margaret Watson

who took me under her wing as a boy and nurtured in me a deep interest in birds and plants'.
When her husband retired they moved to the Borders and continued to lead outings. With the passage of time she moved to Gullane and closer to her family. Although no longer able to come to meetings, her interest still continued. Margaret's burial took place at the Woodland Cemetery in Binning Wood.

Elizabeth Farquharson and Sarah Adamson

News

Wilma Harper, Director, Corporate and Forestry Support Division, Forestry Commission, was awarded MBE for public and voluntary services to the Forestry Sector in the New Year's Honours List. Wilma is an excursion committee member and leads many excursions. When leading us to a forest you know that forests are not just trees but all kingdoms of organisms. She always gives us an introduction including history, people, industry, scientific and commercial usage before guiding us for a sociable outing.

Bryophyte Workshop at Water of Leith Centre

7th March 2015

Vladimir Krivtsov had initiated and organised successful workshops on different subjects at Vogrie over the past two winters. Although Vogrie was no longer available, Council wished workshops to continue. David Chamberlain had given a talk at the Water of Leith Centre in January that emphasised the richness of bryophytes in the area, so it was agreed to run a day-long workshop based at the centre.

After an introductory talk, we spent the morning upstream, finding and collecting the mosses and liverworts of woodland and riverine habitats. These included examples of the main moss and liverwort groups, ie, branched and unbranched mosses, and leafy and thallose liverworts. The afternoon was spent attempting to identify our collections using hand lenses and microscopes in the comfort of the centre. Our five new microscopes were being used for the first time and proved to be ideal for this exercise.

With Liz Kungu's help we were able to find and name some 12 species of liverwort and 33 species of moss. As the names of bryophyte genera often have four to six syllables, our beginners were probably a bit overwhelmed by the number of species and their difficult names. Thankfully Liz brought laminated photographic guides to the most common species.

My thanks to the staff and volunteers of the Water of Leith Centre for accommodating us, to Liz Kungu for sharing her immense knowledge of the subject, to Rob Wallace for helping to plan the event and to Sarah Adamson for setting up the microscopes.

David Adamson



Bawsinch SWT Reserve 2015

After I made an announcement at an indoor meeting about the ENHS keys to this SWT reserve being available for loan, I had many requests. I have been key keeper for some ten years and have not had one request in all that time - until this year! The keys were borrowed on eight separate occasions, by groups and individual members. Here follow the reports I received.

- Patrick White and Jason Gilchrist, Animal and Plant Sciences, Edinburgh Napier University on 6th March. A group of 31 students from the MSc Wildlife Biology and Conservation, and MSc Conservation and Management of Protected Areas courses visited Bawsinch and Duddingston Reserve, guided by Ken Knowles, SWT Reserve Convener, with Joanie

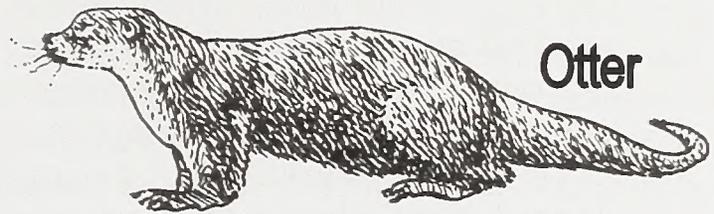
McNaughton, ENHS, in attendance. Our primary aims for the day were for the students to develop further bird surveying and identification skills and to learn about the challenges faced by a reserve management committee within an urban protected area. Students first carried out a breeding bird survey transect along the Innocent Railway, adjacent to the reserve and then made Wetland Bird Survey observations from the reserve's hide. Early observations were somewhat hampered by high winds, a good lesson in the effects of weather conditions on detectability when surveying. The combined bird list for the day was 40 species, including species that were less familiar to some, such as bullfinch *Pyrrhula pyrrhula*, goldeneye *Bucephala clangula* and redwing *Turdus iliacus*. The students came away with a better understanding of the management of the site, including issues of invasive species and use of volunteers for practical management work.

- Members, Fiona and Richard McGuire, borrowed the keys in March to visit the reserve twice with their elderly aunt. She remembered it in the days before the gates were kept locked. That must have been some time ago! The McGuires borrowed the keys again in early summer. Marion Moir visited the reserve in April.
- FGSES led by Roy Watling visited on 5th April, a bright but cold day. Given the time of year, most of the fungi found were on wood. The most spectacular was juniper and hawthorn rust *Gymnosporangium clavariiforme*, conspicuous bright orange spikes arising from the branches of juniper *Juniperus communis* bushes. The rust infects leaves and fruits of a different host, hawthorn *Crataegus monogyna* producing 'cluster cups' during the autumn. Another orange fungus, on blackthorn *Prunus spinosa* this time, was cinnamon bracket *Hapalopilus rutilans* which turns purple when an alkali such as ammonia is applied. One of the few toadstools was spring brittlestem *Psathyrella spadiceogrisea* found in some quantity by the path. Most of the other finds required microscopic identification and after these were included a long list was produced.
- Katherine White on 8th April, went for a walk in Bawsinch and watched a pair of great crested grebe *Podiceps cristatus* doing their mating dance and flinging pondweed at each other. Pictures and videos can be found on Facebook. She saw the three species of butterbur: common *Petasites hybridus*, white *P. albus* and giant *P. japonicus*, and the giant butterbur had three species of butterfly on it, namely comma *Polygonum c-album*, peacock *Aglais io* and small tortoiseshell *A. urticae*. She saw a small herd of roe deer *Capreolus capreolus*. Katherine and myself returned on 10th April and made similar observations which included little grebe *Tachybaptus ruficollis* nest building.
- On Saturday 18th July 2015 I led a small group to the reserve - see excursion report.
- Joanie and Alastair McNaughton visited on 2nd August. The two adult great crested grebes with juvenile were still there. Also a pair of dabchicks or little grebe with one young, 15 greylag geese *Anser anser* and three juvenile heron *Ardea cinerea*. Meadow brown *Maniola jurtina*, ringlet *Aphantopus hyperantus* and green-veined white *Pieris napi* butterflies were on the grasses and on creeping thistle *Cirsium arvense*, with an antler moth *Cerapteryx graminis* on thistle. A large gean or wild cherry *Prunus avium* was heavy with fruit, as were redcurrant *Ribes rubrum* and rowan *Sorbus aucuparia*. A new insect for me, a fungus gnat, *Sciara* sp., was everywhere but mostly on reed canary grass *Phalaris arundinacea*. Growing at the edge of the loch was branched bur-reed *Sparganium erectum*, the female flower growing below the spike of the male flower, with some fruiting bodies already formed.
- On 19th November, a solitary bright and sunny day sandwiched between gales and torrential rain, I decided to pop down to the reserve for a few hours and boy was it worth it. My first Bawsinch kingfisher *Alcedo atthis*! I watched it flying to and fro in front of me from the wee one-man hide at the west end of the loch. Chuffed to bits. Also on the loch were 19 moorhen *Gallinula chloropus*, six dabchick, a pair of shoveler *Anas clypeata*, ten gadwall *A. strepera* and 20 teal *A. crecca*, amongst others. I met the SWT SE Scotland reserves manager, Julian Warman, who told me about the SWT's flying herd of Shetland cows which have been put to graze on the newly acquired 'Murder Acre', otherwise and less romantically known as the

West Extension. As a result of this newly managed area, it is the first time in well over a decade that cattle have grazed on Arthur's Seat. He also told me that the project to clear red-stem dogwood *Cornus sericea* from the reserve is well under way with the invasive non-native species almost eradicated. It is expected that the five year anticipated period to complete this will be fulfilled. This clearance has allowed bottle sedge *Carex rostrata* to make a comeback.

- Katherine and Laura Edwards-White in early December saw a water rail *Rallus aquaticus*, kingfisher, teal, sparrowhawk *Accipiter nisus*, kestrel *Falco tinnunculus*, tree creeper *Certhia familiaris* and shoveler. One day there was a surprise of an otter *Lutra lutra*.

Joanie McNaughton



Camera-trapping Otters

I am overdue an update on our camera trap work funded by the ENHS*. We have been camera-trapping at Powderhall artificial holt for a couple of months and so far we have filmed many cats, quite a few rodents and a single fox *Vulpes vulpes* on the cameras. We'll be keen to keep the site filmed for the duration of the winter, since structures' use has been observed to vary seasonally, so patterns now are not necessarily indicative of the whole year.

However, given the lack of otters *Lutra lutra* so far, we're planning to relocate one of the cameras to maximise the potential of having two units. There are two possible approaches here:

1. Place the camera along a track or embankment nearby so we can identify if there are any otters frequenting the vicinity of the structure. If the structure is not used but otters are frequently in its vicinity, this poses interesting questions as to why. We would need to find a suitable, secure location for the camera.
2. Identify another potential structure to film and move one of the cameras there. This approach will allow us to monitor Powderhall, while extending our reach for filming. Before doing so, we'll need to identify other structures that appear to have otter activity in the vicinity, but have a suitable secure location for the camera-trap.

Either way, if we then get otter activity later at Powderhall, we can re-instate the dual-cam set up there, which will allow us to monitor and assess the function of the structure.

I'll keep you updated as to our actions.

Patrick White, Lecturer in Conservation Biology, Edinburgh Napier University

*Note: The Council offered Patrick the use of the camera-trap donated by Kathy Buckner.

Observations

Over the course of 2015 many observations have been made whilst out on excursions and documented in reports. A handful of members also comment on sightings made whilst they go about their daily lives. Nowadays a good number are posting on Facebook which acts as a shop window to our interests with photographs and comments. The format encourages discussion and identification assistance. Some notable examples include:-

- The water rail *Rallus aquaticus* that has taken up residence in the artificial reeded area in Inverleith Park has attracted many to the area.
- David Adamson has broadened his interest in bees to include locating leaf-cutter bees *Megachile centuncula*, woolcarder bees *Antheridium manicatum* and 13 species of bumblebees in their differing sexual forms.
- Shaggy-soldier *Galinsoga quadriradiata* on a new flood-defence ramp and spotted medic *Medicago arabica* near Stockbridge have caught Patrick Chaney's attention on urban walks.
- Tom Delaney has recorded the visitors and residents of his garden at Wadingburn which lies between Lasswade and Loanhead, just beyond the city bypass. His garden has fields behind,

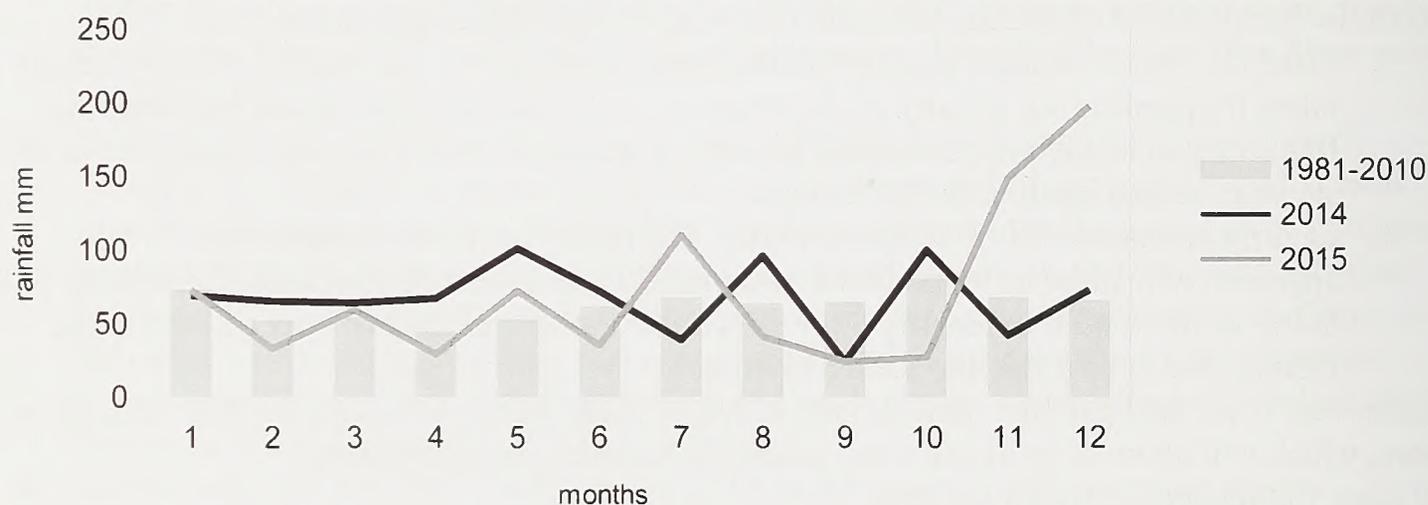
a wood in front, gardens either side and quite a large pond. Much of the surrounding area is taken up with a large grassed-over former landfill site plus three golf courses. His visitors include: bats, roe deer, many butterflies and moths, dragonflies, newts, quail and tawny owl.

- Vladimir Krivtsov's moss workshops have driven an increased interest in mosses and liverworts evident by furtive collecting on excursions.
- Members have been noticing more invertebrates and sought help to identify them online. One fine example is *Rhyssa persuasoria*, our largest ichneumon wasp which parasitises wood wasps, noted by Neville Crowther. Other spectacular insects include two hawkmoths, elephant *Deilephila elpenor* and hummingbird *Macroglossum stellatarum*. Rob Wallace was excited to find his first pseudoscorpion at Linlithgow.
- Jackie Muscott particularly noted wood clubrush *Scirpus sylvaticus* in a pond by the River Almond, near Carlowrie. Of insects, we saw bee flies, family *Bombyliidae*, in various locations and wall butterfly *Lasiommata megera* at Tynninghame. Locally, on the Meadows; there was the fungus chicken of the woods *Laetiporus sulphureus* on a Japanese cherry tree *Prunus serrulata*.

Rainfall in Corstorphine in 2015: A Year of Marked Fluctuations

Rainfall in the East of Scotland is rarely consistent. This was very much so this past year in Corstorphine where records have now been kept for 50 years at the one site.

Comparison of rainfall (mm) 2015 with 2014 and the long-term average (1981-2010)



	Jan	Feb	Mar	April	May	June	July	Aug	Sept	Oct	Nov	Dec	Total
2015	73	33	59	29	72	35	110	41	24	27	149	198	850
2014	69	65	64	67	101	72	39	96	24	100	42	73	812
1981-2010	73	52	55	45	53	62	68	64	65	81	68	66	752

The total fall this past year was 850mm. This is about 100mm above the average for the present 30-year reference period (1981-2010). However, many recent years have experienced rainfall well above the reference period average, so one should not regard 2015 as a particularly wet year.

The first half of the year was unremarkable. February, April and June were drier than normal, and only May registered the reverse. The year's longest dry spell, with no days for which a significant rainfall was recorded, started on 30th January and ran for 14 consecutive days.

July was a distinctly wet month, but August was somewhat dry. The months that followed provided the most noteworthy readings of the year. Firstly, September and October shared only 51mm between them. Only one daily reading went into double figures, and only two approached that level. In sharp contrast, November and December were exceptionally wet, November yielding 149mm

and December 198mm. The latter figure was the second highest monthly total of the 50 year period, The highest was 216mm in August 2008. This November and December experienced the heaviest two months of rain over the 50 years.

Munro Dunn

Are Crab Apples and Wild Plums naturalised in Scotland?

In 1991 at apple-blossom time I wrote a letter to the local paper asking for flowering sprigs of crab apples from hedges. I was pleased to receive about a dozen parcels. I identified the specimens and then visited the localities. I concluded that hedgerow apples in the Scottish Borders are a mixture of crab apple *Malus sylvestris* and seedlings of the cultivated apple *Malus pumila*. Both species seem to have been included randomly in nurserymen's stock as 'crab apples'. The older plantings usually produce small crab-apple-size fruit even if they are not true crab apples and are probably hybrids. More recent plantings are more varied. Self-sown apples are rare.

I have not altered my view over the years except that I find that exotic crabs such as Sargent's apple *Malus sargentii* and purple crab *M. x purpurea* are now planted occasionally.

In 2015 I re-surveyed a 25 mile stretch of the old Waverley Line railway that I had previously surveyed in 1975 in fifteen survey sections. Apples were recorded from four sections in 1975 and the same number of sections in 2015, though only two were the same. All the six trees found in 2015 were wildings from cultivated apples. None had regenerated to form colonies. Some of the trees are far from houses, so it is not clear how the seeds were dispersed, whether brought by birds from gardens or hedgerows, by discarded apple cores from some workman's lunchtime 'piece' or by discarded cores hurled from carriage windows.

Wild plum *Prunus domestica* is quite scarce in the Scottish Borders. There are two sorts. There are small trees with relatively large leaves that correspond with subspecies *domestica*. These are most often found in hedgerows where they are not spaced out methodically like the crab apples, so they do not seem to have been commonly included in nurserymen's stock. Instead they are clustered near habitation. Then there are shrubs that look very much like the native sloes, blackthorn *P. spinosa* except that they have few or no spines, sucker less strongly and may have larger fruit with stones that are ridged and deeply pitted. These correspond roughly with subspecies *insititia* but are variable and may include hybrids with *P. spinosa*.

On the railway *Prunus domestica* was found in four places within three survey sections in 1975 and in four sections in 2015, of which two were the same as in 1975. One of the 2015 finds was of subspecies *domestica*: it was a small tree in a hedge where it had probably been planted. The others were all shrubs and appeared to be bird-sown. It is not at all clear where they had come from. Have we a wild population of subspecies *insititia*, or the hybrid, in the Scottish Borders or have the bushes been bird-sown from gardens or hedges fairly close at hand?

Wild plum and sloes are present in quantity on the Eildons, in the wood on the south side of Hill North, where they appear to have been planted as part of a nineteenth-century fox covert. They are a puzzling mixture of different forms.

I conclude that no apple species are native or naturalised in the Scottish Borders, they are only planted or casual, and that of the two main forms of wild plum only subspecies *insititia* is naturalised, while subspecies *domestica* is usually planted or occasionally a bird-sown casual from garden plums. I would be most interested to hear of any Scottish localities of well-naturalised crab apples or wild plums or of other comments on their distributions or origins.

Michael Braithwaite

Clarilaw Farmhouse, Hawick TD9 8PT

Michael has recently published *The Railway Flora of Teviotdale revisited*. He moved to Hawick just after the Waverley Line closed in 1969. This book coincides with the opening of the new Borders Railway. The Hawick Archaeological Society has donated a number of copies to the ENHS.

Scarlet Elf Cups

I don't know whether the winter of 2014/15 was particularly favourable for scarlet elf cups, but I saw a number of these attractive fungi this year. The first was on a log at the east end of the Hermitage of Braid on 4th January. I was out with the FGSES, got cold and went off for a brisk walk away from the others. On 20th February Mary Clarkson took me to see the banks of snowdrops *Galanthus nivalis* and winter aconites *Eranthus hyemalis* by a burn near West Byres, and here we encountered a number of cups on four separate chunks of wood ranging from the odd specimen on a stick to about half a dozen on a beautiful moss-covered log.

The following week Jean Murray joined us for a walk near Pencaitland and she discovered a couple of tiny specimens on a dry stick, while on March 14th we joined her for a Nats recce near Newtown St Boswells and found some more slightly larger cups. Meantime Lyn Blades had found another moss-covered log with some beautiful specimens at Blairadam on 14th February.

There are two species of scarlet elf cup, *Sarcoscypha austriaca*, the commoner, and *S. coccinea* - and separating them requires a microscope. Mary was most anxious to determine which we had found and checked out a specimen from West Byres and another from Newtown St Boswells, the ones from Pencaitland being too small and dried up. The specimen I collected at Blackford had disappeared before Mary could get her hands on it, but it reappeared on 4th March on the same log, so she was able to look at three samples. All turned out to be *S. coccinea*.

I think she was aware that Liz Holden, an expert mycologist, had found this species in the east of Scotland and was wondering if it's commoner here. In fact, she and Ron McBeath between them had made eight collections of *S. coccinea* in Berwickshire in 2013, so these recent finds add support to the theory. It is therefore important to identify scarlet elf cups properly, and this cannot be done in the field.

Jackie Muscott

Badger Watch, Pentlands

On 27th August 2015 it was with feelings of trepidation that we drove in the pouring rain towards an area of the Pentlands where there were many thriving badger setts. Here we met Tricia Alderson of the Badger Group who was to be our guide. We need not have worried for it turned out to be a perfectly clear evening with an almost full moon and the setting sun bathing the Pentland Hills in beautiful light.

This was an impromptu excursion organised by Tom Delaney following abject failure to find badgers *Meles meles* during the scheduled Cammo outing the week before. Advice had been given to wear dark clothing including hats and gloves to help us merge with the background. Insect repellent proved to be invaluable.

After an introductory talk we made our way to the badger sett where along the way Tricia pointed out badger paths and a latrine. We made ourselves comfortable and it was not long before we saw our first badger and then for an hour or so had the pleasure of watching some interaction during which time the boar was busily clearing out some old bedding. There was a lot of to-ing and fro-ing which made it difficult to tell how many badgers we were actually watching. It was agreed that both the boar and sow were seen with possibly two of the four cubs that had been born in February of this year. They will become sexually mature at around two years of age.

The badger's main source of food is earthworms *Lumbricus* spp. of which they may eat several hundred a night. They will also eat other invertebrates, bulbs and cereals. Because badgers have thick skin and strong claws they are one of the few species able to kill and eat hedgehogs.

We were very fortunate at this time of the year to have had such good views of the badgers. Tricia had informed us that June and July are the best months as at this time they are more likely to appear



Scarlet elf cups

during daylight.

Leaving our observation post we were treated to what were probably pipistrelle bats *Pipistrellus pipistrellus* flying by just a few feet above our heads and the calls of a tawny owl *Strix aluco*. A perfect end to a very successful evening.

Sarah-Louise Davies

Badgers and Tuberculosis – An update

Badgers and bovine tuberculosis (TB) become a news item at fairly frequent intervals and in 2012 they were the subject of a Panorama programme. This lasted for half an hour during which farmers were interviewed and the problems that they face were discussed. Only five minutes was given to a research scientist. It is understandable that the media should concentrate on the plight of dairy farmers and say little about the research that is taking place but it does not give the public an accurate picture. During 2013 and 2014 the government spent £8million on research.

Culling has been tried in the UK and in Ireland, and is still sanctioned by the government in spite of no lasting reduction in infections and very high costs. An alternative is immunisation. Farmers have been against this for their cattle because there is difficulty in separating diseased from immunised beasts. Immunisation of the badgers is an alternative, and for many years an attempt to find a vaccine that is efficient, cheap, and that can be taken by mouth has been ongoing. Until such a vaccine is found, BCG, the vaccine used for humans, is being used. Field trials are taking place in some of the counties of southern England but a field trial in Wales has had to be postponed because of shortage of vaccine.

Some of the trials are quite small having been instigated by the farmers and use is made of volunteers. A much bigger trial has been organised by the Department for Farming and Rural Affairs covering many square miles and is located near Stroud. It has been running for the past three years, so it should not be long before there is some feedback. In this trial the badgers are cage trapped, anaesthetised, tattooed for future identification, injected with vaccine and released. TB is an international scourge so the results of research in this country might have far reaching effects.

Elizabeth Farquharson

Two Islands

This year I have had the chance to experience natural history further afield. In May, I went to Tobago as part of my master's course. It was the first time I had travelled outside Europe. I got the chance to see the marine environment either snorkelling or from glass bottom boats. The corals of Tobago do not suffer badly from bleaching and are beautiful. Buccoo Reef gave me a real insight into the diversity of marine organisms, with angelfish *Pterophyllum*, damselfish *Pomacentridae*, butterflyfish *Chaetodontidae*, moray eel *Muraenidae*, wrasse *Labridae* and many more. One species seen was the lionfish *Pterois* spp. which has brought about the destruction of many tropical marine ecosystems.

On dry land we experienced ecotourism and education on the island, with many guided tours and meeting guides. On the Gilpin Trace we reached the protected rainforest on the Main Ridge. Birds included the white-tailed sabrewing *Campylopterus curvipennis*, a hummingbird which is restricted to Tobago and the rainforests of Venezuela. The collared trogon *Trogon collaris* and red-legged honey creeper *Cyanerpes cyaneus* were a couple of the more elusive species seen. I believe Tobago has less diversity than expected, especially mammals, due to hunting. The Main Ridge rainforest is a UNESCO World Heritage site and covers roughly two thirds of the island. It was made a protected area in the 1700s by Soame Jenyns, a member of the British Parliament at the time, and was to act as an area which could provide rain to fertilise the soil and stop erosion of the landscape. It also gave habitat for rainforest birds and is thought to be the first protection act in the modern environmental movement. With another student I carried out a survey project of different areas within the rainforest, discovering the differences in diversity between plantations, rainforest and urbanised areas. Plantations of banana and cocoa were destroyed by Hurricane Flora in 1963 and

since then Tobago has relied on ecotourism.

It was interesting to see the use of feeding stations for ecotourism, with the opportunity to see hummingbirds feeding up close at Adventure Farm. Five hummingbird species were seen, including the beautiful ruby topaz *Chrysolampis mosquitus* of which the male of the species has a ruby crown and in certain light, looks golden.

Historically, Latvia attempted to control the island in the 1600s and this is seen by the use of Courland in place names. Later the French and British rule interchanged until Tobago became a British colony. In 1962 it gained independence and joined Trinidad. My highlights from Tobago were seeing blue-backed manakins *Chiroxiphia pareola* display dancing, leatherback turtle *Dermodochelys coriacea* laying eggs and the diversity of marine life.

In July I took part in the Young Birders' Training Course on the Isle of May run by the SOC. For six young birders this was a week of birding, activities run by three SNH and CEH staff and learning more about recording and the work of an observatory.

Activities included kittiwake *Rissa tridactyla* catching, puffin *Fratercula arctica* netting and kittiwake watching. The first two were to ring birds and check any that already had rings. Leg rings give information about where an individual was ringed which can be used to gauge a bird's activities and movement, for example migration for food. During the kittiwake catching, blood samples and regurgitated material were collected to monitor the health and diet of the birds. The puffin netting involved taking the dropped fish to analyse the diet and availability of food.

Overfishing has reduced food species populations, such as sandeels *Ammodytes* spp., and therefore monitoring seabirds such as the auks *Alcidae* and gulls *Laridae* on the Isle of May is important to gauge the health of the species. The kittiwake watch was to monitor behaviour between pairs to see how long individuals are spending away from the nests for feeding.

We helped to build nest boxes for roseate terns *Sterna dougallii* which have not had great breeding success on the Isle of May, unlike on the Farnes. Arctic terns *Sterna paradisaea* do breed well here.

We helped catch chicks and check ring numbers to monitor survival and ring younger individuals.

Whilst learning to ring birds, there was a focus on records and the history of the island. Every bird seen and ringed is recorded with details such as weight, age, date, weather etc. for the log books.

The records date back to the 1920s. These were started by Evelyn Baxter and Leonora Rintoul, both Scottish ornithologists, with Baxter establishing the SOC. Volunteers set up the Isle of May Bird Observatory in 1934, the oldest continuously run observatory in Britain.

It was a great week, getting to see many species including great skua *Stercorarius skua* and black guillemot *Cephus grylle*. I would certainly recommend the island to birders but also as a place to see cetaceans. A minke whale *Balaenoptera acutorostrata* was seen by the SNH warden.

Ptolemy McKinnon

Outdoor Excursions

The addition of grid references at the beginning of each article will enable the reader to locate the starting point for excursions. However, the nature of excursions makes it impossible to include the routes taken. Features mentioned in reports may be indicated on Ordnance Survey maps or an online mapping service, such as Magic Maps.

Callendar Park, Falkirk NS 887792

17th January 2015

Leader: Wilma Harper

The first meeting in the New Year was to Callendar Park in Falkirk. We chose an entry point away from the popular children's playground and convenient for Falkirk High Station. As we assembled there were three buzzards *Buteo buteo* circling and being chased by crows. There were good views of a jay *Garrulus glandarius* too.

The first part of the walk took us through the woodland. Although now managed by FC this was originally part of the Forbes' family estate and has some old estate buildings including a grand if somewhat decaying and vandalised mausoleum. It was a cold day with snow on the ground but some birds were heard and sometimes seen in the trees; goldcrest *Regulus regulus*, coal tit *Periparus ater* and *Sitta europaea* were all recorded.

However there is always something of interest for the Nats, and David Adamson and Vladimir found a cap lichen of the species *Dibaeis baeomyces* on one tree trunk. This is unusual in having tiny pink globules almost like minute mushrooms. A possible new record for the area?

The lunch spot selected was a set of picnic tables overlooking the boating pond where I had swept the snow off the benches first thing that day. This is very much an urban park environment but nevertheless there were coots *Fulica atra*, moorhen *Gallinula chloropus*, tufted duck *Aythya fuligula* and black-headed gull *Chroicocephalus ridibundus* to watch while we ate our sandwiches and drank flasks of coffee or soup. Ptolemy took the prize for the most stylish flask, appropriately decorated with pictures of birds!

We worked our way towards Callendar House, through a formal arboretum area with some specimens reputedly commemorating the plant hunter George Forrest who came from Falkirk. In the house, some members visited the exhibition of botanic art while others were drawn to the exhibitions of the history of the area. The excursion committee concluded that the tea room would be a good place for a meeting about next year's programme, including a return visit to Callendar Park.

Wilma Harper

Cockmuir to Toxside, near Gladhouse Reservoir NT 264551

21st February 2015

Leaders: Tom Delaney and Neville Crowther

Despite the gloomy forecast earlier in the week, the day itself dawned wonderfully bright and sunny, admittedly quite cold but with only a moderate breeze. There was a light covering of ice on the puddles on the track, but the heavy frost was already disappearing in the sunlight. There was a surprisingly good turnout of 16 members at the start, plus Janet, who soon caught up with us, having mistakenly gone to Toxside and made a swift translocation.

We might have had even more participants, apologies having been received from three members. However, we had the pleasure of welcoming to the company Mike Robinson's son, Rob, a senior scientist at the BTO HQ in Thetford and who has offered to give the society a talk on bird-ringing next season.

While the group was foregathering at Cockmuir, we saw a distant kestrel *Falco tinnunculus* being mobbed by a carrion crow *Corvus corone*. David set off to explore ahead, and when we caught up with him he had already located a bullfinch *Pyrrhula pyrrhula* and a flock of about 20 redpoll *Carduelis flammea*. They were feeding eagerly on a plentiful crop of cones along the edge of a plantation of larches *Larix* sp. A short time later, a raven *Corvus corax* flew over, apparently heading towards a nearby plantation where they were reported to have bred in recent years. There is a large, disused gravel quarry by the track, and here we found a surprising variety of mosses and lichens. The abundant red capsules of *Polytrichum piliferum* contrasted with the glaucous green leaves of nearby *Pogonatum urnigerum*.

Crossing the burn and passing the pond, we followed the westerly track between a variety of plantations, mainly of spruce *Picea* sp, but including a small area of young oaks *Quercus robur*; still holding onto their dead leaves, rather as a beech *Fagus sylvatica* hedge does, and a few small



Nuthatch

clumps of Scots pine *Pinus sylvestris*. Our route offered wide views over open moorland, mainly grassy but with some extensive areas of heather and bog, all set in a serene and diverse landscape of low undulating grassy hills of glacial origin, with the distant Pentlands as backdrop and the frosty Moorfoots ahead of us. Although it is only ten miles from the centre of our capital city, the area is totally unspoiled and gives an impression more akin to the remote north.



A pair of roe deer *Capreolus capreolus* fed unobtrusively 100 metres from our track. John Palfrey and Ptolemy spotted a buzzard *Buteo buteo* soaring in the distance: with further scanning a total of four were seen flying in the vicinity. Otherwise there were few birds, and of those that were reported, some eg crossbill *Loxia curvirostra* and goldcrest *Regulus regulus*, were quite elusive. Two species of clubmoss were growing by the edge of the forest path: stag's-horn clubmoss *Lycopodium clavatum* and alpine clubmoss *Diphasiastrum alpinum*.

As we approached the road at Tweeddaleburn, we spotted a large flock of thrushes, flying up into the trees surrounding a large grass field liberally dotted with molehills. There were about 120 starlings *Sturnus vulgaris*, 50 fieldfares *Turdus pilaris*, a dozen redwings *T. iliacus* and a single song thrush *T. philomelos*.

We had lunch in the shelter of a large clump of rhododendrons. David once more went off to investigate our surroundings and immediately flushed a bird from the ground; Mike Robinson and Ptolemy identified it as a woodcock *Scolopax rusticola*, the best bird of the day! In woods along the road to Toxside, we saw four or five mistle thrush *Turdus viscivorus*, and a scattering of chaffinch *Fringilla coelebs*. A few gulls were soaring over fields newly scattered with dung. Rob and Ptolemy spotted a tree sparrow *Passer montanus* near a bird feeder.

Toxside Farm produced the day's greatest concentration of small birds; tits including blue *Cyanistes caeruleus*, coal *Periparus ater* and great *Parus major*; and dunnock *Prunella modularis* and more chaffinches.

Our route back to the cars was via the moorland where on a previous excursion with Butterfly Conservation we had been successful in finding a good number of large heath butterflies *Coenonympha tullia*.

During the whole of our walk, we came across only one dog-walker and one lady on a horse. Back at the starting point, we were somewhat surprised to learn that it was only 2pm: it hadn't really been weather for lingering or dawdling and we had covered the route at a goodly pace.

After a most enjoyable walk in this tranquil place, the only gloom on the horizon was the towering presence of the meteorological mast set up in support of the proposed wind farm at Mount Lothian. The proposal is going to enquiry in March this year. It is sad to think that, by the time we next wish to visit this lovely area, it could well be blighted by the first major wind farm in Midlothian.

Tom Delaney

RSPB Loch Leven, near Kinross NT 160990

21st March 2015

Leader: Joanie McNaughton

Weather-wise it could not have been better for this visit to the RSPB reserve, formerly Vane Farm, with sunshine, high cloud and no wind to mention.

On the loch spring was definitely in the air with goldeneye *Bucephala clangula* and great crested grebes *Podiceps cristatus* displaying, mute swans *Cygnus olor* 'necking' and many others already paired or pairing up: wigeon *Anas penelope*, teal *Anas crecca*, shelduck *Tadorna tadorna*, tufted duck *Aythya fuligula*, mallard *Anas platyrhynchos* and more gadwall *Anas strepera* pairs than I have ever seen at once.



Lapwing

On the surrounding fields lapwing *Vanellus vanellus* were displaying, and 100 curlew *Numenius arquata*, 1,300 pink-footed geese *Anser brachyrhynchus*, 20 greylag *A. anser* and many oystercatcher *Haematopus ostralegus* were all gathering for their journey north or into the hills to their summer breeding grounds. One of the first spring indicators, the skylark *Alauda arvensis*, was singing his wee heart out, lifting high into the sky and out of sight, but never out of earshot. A 'funny goose' was spotted and this gave rise to lengthy discussion as to what it was. It had the bill of a greylag and neck colouration of a pink-footed goose with dirty creamy-white body plumage. It flew in with some greylags. On doing some later research, the Lothians' Recorder confirmed that it was a leucistic greylag.

In the shrubs surrounding the Gillman Hide we watched a party of long-tailed tits *Aegithalos caudatus* and tree sparrows *Passer montanus* flitting back and forward from their perch to the nearby feeders. Brambling *Fringilla montifringilla* was also spotted. A blue tit *Cyanistes caeruleus* was investigating some nest boxes to find a suitable site.

Three birds of prey were recorded on the day: buzzards *Buteo buteo* circling over Benarty Hill; Molly spotted an osprey *Pandion haliaetus* flying over the loch, possibly a first arrival from Africa; and a peregrine *Falco peregrinus*.

Animals seen were roe deer *Capreolus capreolus*, rabbits *Oryctolagus cuniculus* and brown hare *Lepus europaeus*. A fox moth *Macrothylacia rubi* caterpillar was recorded, along with peacock butterfly *Aglais io* and buff-tailed bumblebee *Bombus terrestris*. On the way up Benarty Hill fungi seen were winter polypore *Polyporus brumalis*, tinder or horseshoe bracket fungus *Fomes fomentarius*, razor strop fungus or birch polypore *Piptoporus betulinus* on silver birch *Betula pendula*, turkey tail *Trametes versicolor* and hairy curtain crust *Stereum hirsutum*.

Joan McNaughton

Leader Water with mosses, south of Earlston NT 572371

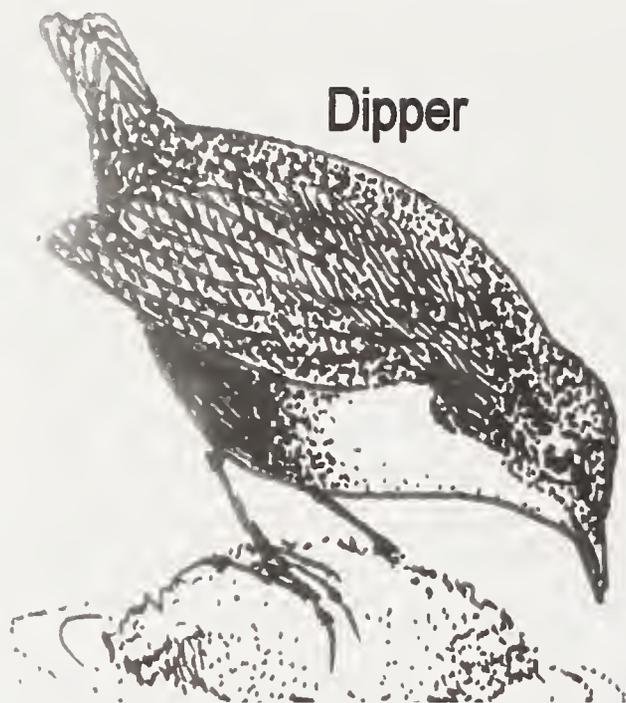
4th April 2015

Leader: Jean Murray

The first outing of the spring and summer programme happily coincided with the first real spring day of 2015. Our venue was the stretch of the Leader Water south of Earlston and just north of last year's walk. The habitat and natural history, not surprisingly, were very similar to the outing on 5th April 2014, but this did not detract from the pleasure renewing acquaintance with the plants and birds of a woodland in spring.

In the morning we followed the Leader Water Path on the west bank of the river until we took lunch in a grassy field opposite Cowdenknowes. Here packs of wolf spiders *Lycosidae* were running over last year's dead grasses and dry leaves. Jean Murray had told us that townhall clock *Adoxa moschatellina*, was a unique plant with no close relatives; its flower-head has four fused petals on its uppermost face, and five fused petals on each of the four clock faces. Today we found it growing in many places, including on two rotting tree stumps. Unfortunately, much of the woodland floor is carpeted with alien species, particularly the few-flowered leek *Allium paradoxum*, and native plants are being out-competed.

We crossed the river to the Jubilee Path and ascended a winding path through a thicket of rhododendrons *Rhododendron ponticum* until reaching the edge of a field. Old wooden fenceposts under trees are often worth checking for the presence of over-wintering invertebrates. Today we were rewarded by finding four species of ladybird, larch *Aphidecta oblitterata*, orange *Halysia 16-guttata*, 7-spot *Coccinella 7-punctata* and 10-spot *Adalia 10-punctata* and early instar shieldbugs. Sarah later found a 10-spot ladybird that had emerged from hibernation.



Dipper

A circular walk was not practical so we retraced our steps and were back at the starting point by 3pm.

The most numerous birds, if frequency of call is a good measure, appeared to be nuthatch *Sitta europaea* and chiffchaff *Phylloscopus collybita*. Less vocal were dipper *Cinclus cinclus*, goosander *Mergus merganser*, buzzard *Buteo buteo* and tree-creeper *Certhia familiaris*. Molly also found pied *Motacilla alba* and grey wagtails *M. cinerea*.

Finally, as the main theme was bryophytes I must thank Jean Long for finding *Nowellia curvifolia*. This is a small leafy liverwort that paints the surface of well-rotted logs a brown-orange colour. It is somewhat uncommon, and I had just expressed a wish to find it when Jean came up with a specimen. It was one of the 10 liverworts, and around 30 mosses that we identified today. Thanks also to Jean Murray for leading another excellent spring walk

in the Borders.
David Adamson

Aberlady area circuit and Gosford Estate Parkland NT 457794

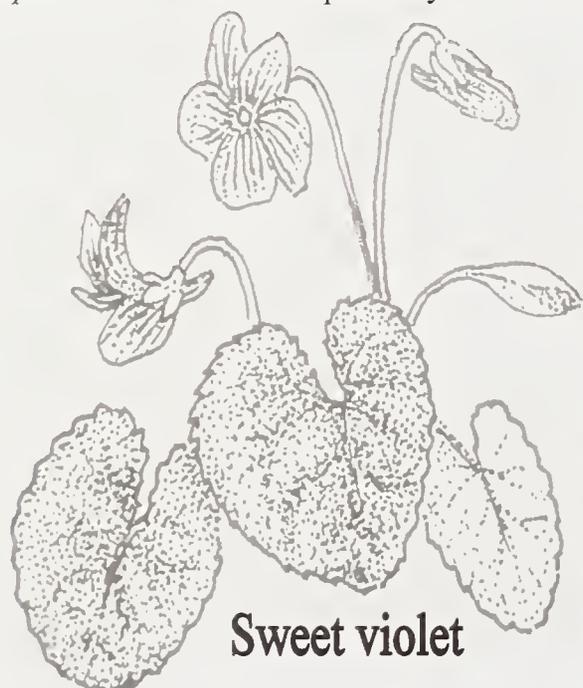
11th April 2015

Leader: Ptolemy McKinnon

The weather prior to Saturday the 11th had been gloriously sunny and warm. An air of excitement and anticipation of the coming season were perceptible. The sun was shining and the day was full of promise.

Before we left the car parking area at the main road, a buzzard *Buteo buteo* was spotted soaring above the fields. A large group of us gathered. From the Gosford Bothy Farm Shop and Café, we crossed its car park and continued along a pathway into the estate, with a wall to one side and a wooded glade on the other. Here we saw and heard an abundance of plants and wildlife.

In the trees above we heard and caught a fabulous close up view of a male great spotted woodpecker *Dendrocopos major*. Sounds too were heard of a nuthatch *Sitta europaea*. On the ground below among the many plants in evidence were; yellow figwort *Scrophularia vernalis*, dog violet *Viola riviniana* and lesser celandine or pilewort *Ficaria verna*. With great delight David spotted an early bumblebee worker *Bombus pratorum* foraging amidst the vegetation. In all David had a count of six common bumblebee species and a bee fly, probably *Bombylius major*. *Coccinella 7-punctata* the seven-spot ladybird was also spotted, pardon the pun!



Sweet violet

As I walked alongside Jackie and chatted while she recorded plants, she introduced me to the beautifully flowering Norway maple *Acer platanoides*. In the days ahead I was able to recognise this tree by its wonderful limey green inflorescence.

Further up the path the area widened where we found patches of sweet violet *Viola odorata* and a wonderful bank of cowslips *Primula veris*.

As we continued into the main estate people started to spread out and investigate. Just before we approached the mausoleum there were sounds of a green finch *Carduelis chloris*. I was pleased to catch sight of him in his yellow-green brilliance atop a small tree. In this area there was a network of paths that went off in different directions, something to explore at another visit. We had a quick look

round the mausoleum then walked on into the wider estate towards the ponds.

On approaching the large ornamental pond area we found slender or creeping speedwell *Veronica filiformis*. While pretty, it can be an invasive and troublesome weed to many a gardener. A couple of other plants were pointed out to me; butchers' broom *Ruscus aculeatus* and an impressive holm oak* *Quercus ilex* which Neville identified for me. Unfortunately I have found out this impressive tree is apparently damaging biodiversity within the United Kingdom and is listed as an alien invader.

While the sun shone down, the ponds and trees were a tranquil setting for the greylag geese *Anser anser* and mute swan *Cygnus olor*. It was wonderful to hear the excitement and knowledge of others, recognising the calls of so many different birds, sixteen species identified at least. At some point the fungus *Psathyrella spadiceogrisea* was also found.

The weather was changing and we pushed on down past the beautifully shaped ponds towards the boat house. There is a network of drains and aqueducts taking water to the ornamental lake and the ha-ha acts as a dam to part of the lake. It became much colder and the heavens opened so we made for cover of the nearby wood to have lunch.

Bordering the wood was a large open field and we were lucky to catch sight of 3-4 beautiful roe deer *Capreolus capreolus*, including a buck. The sun had once again appeared. I sat on a rock at the border of the field to warm up and watch as they cantered down it and across in to some woodland on the opposite side.

Vivian Ramsay

*Note: Holm Oak presents a risk in southern England, however, it does not produce offspring in Scotland at this time.

Jackie Muscott

Excursions are central to the Nats

The excursion committee is always looking for ideas for places to visit, leaders, co-leaders and people to write reports for the Journal each year.

If you have an idea please speak to one of the committee and make it happen.

All excursions rely on collaboration and you will get support in planning your day.

Many of the excursions are organised after a member has a good day out and thinks 'That'll make a good Nats outing'.



Hopes Valley, West Hope NT 556626

18th April 2015

Leader: Molly Woolgar

'A spiffing day' The title was Helen's reaction.

On her way to Hopes, our leader performed an emergency stop, not to avoid a mishap but to record her first swallow *Hirundo rustica* of the year. During the day a number of other summer visitors were included in the bird count which reached the grand total of 46.

Nineteen Nats met at West Hope and made their way slowly up the valley towards the dam. The sun

came out and it was a lovely day for walking. House martins *Delichon urbica* and sand martins *Riparia riparia* were flying around.

As we scanned the hillside a stoat *Mustela erminea* still half ermine raced across, bouncing athletically between the juniper *Juniperis communis*. High above we saw buzzard *Buteo buteo*, kestrel *Falco tinnunculus* and raven *Corvus corax*.

By the burn there were dipper *Cinclus cinclus*, pied wagtail *Montacilla alba* and grey wagtail *M. cinerea*, goosander *Mergus merganser* and grey heron *Ardea cinerea*. A pair of common sandpipers *Actitis hypoleucos* were exploring the bank perhaps looking for a nest site. We added willow warbler *Phylloscopus trochilus*, chiffchaff *P. collybita*, goldcrest *Regulus regulus*, lesser redpoll *Carduelis flammea* and many others including red grouse *Lagopus lagopus* both dead and alive. The pussy willows *Salix* sp., being one of the few food sources available at this time of year, were alive with insects, including peacock *Aglais io* and small tortoiseshell *A. urticae* butterflies and several different bumblebees enjoying a feed. As well as white-tailed *Bombus lucorum* there were a number of queens of the rarer heath bumblebee *B. jonellus* and the blaeberry *B. monticola*. Spring flowers noted on the way included coltsfoot *Tussilago farfara*, celandine *Ficaria verna*, violet *Viola riviniana*, spring whitlow grass *Erophila verna*, dog's mercury *Mercurialis perennis* and barren strawberry *Potentilla sterilis*. The most beautiful was at our splendid lunch stop by the dam where we sat on a bank of primroses *Primula vulgaris*.



Dioecious crowberry

Possibly the most interesting plant of the day was one which is easily overlooked. Crowberry *Empetrum nigrum** flowers early producing tiny flowers in the leaf axils. It is dioecious with male and female flowers on separate plants. The males are more conspicuous with long purple anthers hanging out, but the small pinkish ovaries of the females, tucked away in the leaf axils, are easily missed. We found many plants of both sexes in flower. Later in the year the black berries make plants easier to spot.

Most of the party continued after lunch but split into smaller groups. Two completed a circuit of the reservoir. Those going widdershins came on an adder enjoying the sunshine. A little later the party going clockwise spotted a mountain hare and found a number of green tiger beetles *Cicindela campestris* on the stony path. Black-headed gulls *Larus ridibundus* were reported on the water, another sign of summer.

The rest of us either strolled further up the main track or took the path through the woods to the marshy area at the end of the reservoir, before returning to the cars.

Thank you Molly for a splendid outing on a beautiful spring day.

Lyn Blades

*Note: The crowberry described above is subspecies *nigra*. A different subspecies *Empetrum nigrum hermaphroditum* grows on high mountains. It has hermaphrodite flowers, and in the autumn botanists can spend a lot of time searching for berries with the remains of anthers attached, to be sure of the identification.

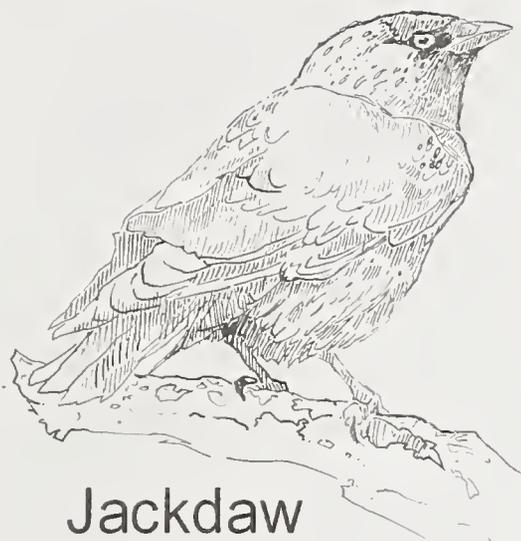
Jackie Muscott

Dunglass and Bilsdean NT 769721

25th April 2015

John Palfery

The weather forecast was not good and when David emailed that 'occasionally an outing has to be cancelled due to weather conditions', it began to look even worse! However, for the seven of us who braved the predicted rain and cold, the reality was much better than expected - cold yes, but dry - and at lunch time sunshine and blue skies arrived.



Along the Dunglass Dean the jackdaw *Corvus monedula* colony was busy. There were feral pigeon *Columba livia* colonies under the various bridges, and a small number of tree sparrows *Passer montanus* were active in the ivy-clad trees above the old mill. A few migrant warblers were singing – chiffchaff *Phylloscopus collybita*, willow warbler *P. trochilus* and blackcap *Sylvia atricapilla* – but numbers were lower than on the recce the previous week, presumably because of the weather. On the beach the wind was bitter and we sought shelter at the burn mouth. Few waders were to be seen but offshore there was at least one diver, a red-throated *Gavia stellata* entering into summer plumage, diving repeatedly and difficult to locate and identify in the choppy sea. Some migration was taking place: a small but continuous passage of hirundines, mostly barn swallows *Hirundo rustica* and sand

martins *Riparia riparia* with the occasional house martin *Delichon urbica*, although none of the latter were yet frequenting the breeding cliffs in this area. This movement continued throughout the morning and into the afternoon. Seabirds were mostly far offshore and there were no fulmars *Fulmarus glacialis* on the breeding ledges, although they had been present the week before. After lunch in some welcome sunshine overlooking the Bilsdean, we followed the cliff-top path towards Thorntonloch and this proved to be the most interesting part of the day. Hirundines were still moving through and, as we stopped to observe the waders and ducks on the rocks below, a peregrine *Falco peregrinus* flew along the base of the cliffs, then swung out to sea before doubling back inshore to retrace its flight along the cliffs, perhaps hoping to catch one of the numerous feral pigeons which nest in the rock arches. Further along, a yellow wagtail *Motacilla flava flavissima* flew over uttering its distinctive 'sweet' call. It alighted, well out of sight, in the middle of the field, a crop of young cereal. Fortunately we soon found a different bird, an attractive canary-yellow male perched on the drystone dyke. Then as we started back good views were had of what may have been the first bird again, also a male in full breeding plumage. The race *flavissima* is confined to the UK and is red listed, having declined by more than 50% since the 1980s. This decline has also taken place in southern Scotland although the latest national atlas (Bird Atlas 2007-11) indicates range increases in the coastal areas of East Lothian and Berwickshire, where it nests in arable fields bordering rough grazing along the cliffs – exactly the habitat where we found them today. Unlike the other wagtail species breeding in Britain, the yellow wagtail is a long distance migrant wintering in Africa south of the Sahara. Like many of the sub-Saharan migrants breeding in Britain, the causes of its rapid decline are uncertain but agricultural intensification is a factor.

Although this field trip focussed on birds, some of the flowers found on the same trip a year ago were again present, including northern dead-nettle *Lamium confertum*. David commented that this is 'an arable weed with a UK distribution largely confined to the Scottish coastline and islands. I have only found it in that field where we saw it today'. Few insects were about in the morning but as the temperature rose in the afternoon some bees and butterflies appeared. David noted queen bumblebees of five species, but none that are not common. Butterflies seen were peacock *Aglais io*, green-veined white *Pieris napi* and a possible wall *Lasiommata megera*. Unfortunately no mammals were seen this year.

My thanks to David Adamson for supplying comments on the plants and insects on the walk.

John Palfery

Fife Coastal Walk - Dysart to East Wemyss NT 304930

2nd May 2015

Leader: Lyn Blades

When we arrived at Dysart we were surprised to find the car park quite busy, but it turned out to be the start of the yachting season. On our return, later in the day, we were even more surprised to see

a yacht dangling on the end of a crane and then deposited by the harbour slipway – where it nearly came to grief when another boat parted from the car which was towing it away.

The weather was unexpectedly cold and wet; nevertheless 18 members of the society set out in the face of a strong headwind. The rain stopped after a time but the bracing wind continued and as a result we saw very few insects; David managed a couple of bumblebees and I saw one, a carder *Bombus pascuorum*.

After leaving Dysart the first flowers we encountered were showy garden escapes – honesty *Lunaria annua*, white comfrey *Symphytum orientale* and cultivated Solomon's seal *Polygonatum x hybridum*. Further on we passed a lone cowslip *Primula veris* and a small patch of barren strawberry *Potentilla sterilis* which despite appearances is neither barren nor a strawberry. There was also a clump of a Scottish rarity, hedge bedstraw *Galium album* (syn *G. mollugo*). It was not in flower but was recognisable by its height and robustness and the whorls of leaves around the stem. Presently we descended by the usual giant steps to the beach, passing primroses *Primula vulgaris*, violets *Viola riviniana*, and at the foot of the steps a little patch of pale blue flowers – cornsalad or lambs lettuce *Valeriana locusta*, which can be eaten as a salad.

From now on we were passing vertical sandstone cliffs fronted by sycamore woods *Acer pseudoplatanus* and a beach. There were two interesting plants on the beach, not yet in flower, but both members of the pea family. Melilot *Melilotus* sp. which has trifoliate leaves and narrow spikes of fragrant yellow flowers is not uncommon on rough ground, while wild liquorice *Astragalus glycyphyllos*, which has broad pinnate leaves and plump spikes of whitish flowers is a local rarity. There was also a couple of spindly-looking plants of annual wall rocket *Diploxis muralis*, a yellow crucifer - which was in flower. It's an uncommon casual, also known as stinkweed because of its unpleasant smell.

The ground flora in the woods was largely dog's mercury *Mercurialis perennis* to start with, later enlivened by red campion *Silene dioica* and wild bluebells *Hyacinthoides non-crispus*. There were a good many blackbirds *Turdus merula* in the wooded areas, some tits and robins *Erithacus rubecula* and plenty of wrens *Troglodytes troglodytes* singing, while Molly saw a pair of blackcaps *Sylvia atricapilla*. Out to sea there were gannets *Morus bassanus* diving against the black clouds as we set out and a number of people saw terns during the walk, which Molly identified as sandwich terns *Sterna sandvicensis*.

As we neared West Wemyss we passed the beautiful 16th century walls and tower of the Wemyss burial grounds, and the Victoria Copse, a glade near the village, where there were seats and mosaic decorations on the wall, the most elaborate depicting two swans. In the village is a moving memorial to five fishermen who died saving the community from a floating mine during the last war.



Eider

West Wemyss was built in the 18th and 19th centuries to house the Wemyss estate workers and is very attractive – and full of sparrows *Passer domesticus*. The old village harbour was filled with coal waste when it went out of use, but now they seemed to be excavating it. As we approached the village we saw three fulmars *Fulmarus glacialis* sitting on the cliffs, either adults nesting or young ones prospecting. Further on there was a good view of cormorants *Phalacrocorax carbo* on a sea wall with a small flock of eider *Somateria mollissima* nearby.

The sandstone cliffs continued devoid of vegetation apart from great hanging curtains of ivy *Hedera helix*. On the beach there was a good deal of common scurvy grass *Cochlearia officinalis*, and a nice patch of alexanders *Smyrniolum olusatrum*, a yellow umbel introduced as a pot herb and happiest near the sea. Greater stitchwort *Stellaria holostea* was added to the woodland flora and the wood edge was brightened by a couple of budding apple trees *Malus pumila* (syn *M. domestica*) while as we came into East Wemyss, the end of our journey, we passed a bank of ramsons *Allium ursinum*.

Some of the more energetic walked back to Dysart, a pleasanter journey with the wind behind them, while others caught the bus, but most finished the day in the café at the old Harbourmaster's House. When the harbour was full of tall ships, many taking coal from the nearby mines, the harbourmaster regulated trade. The most famous was Andrew Dryburgh who trained as a shipbuilder in Dysart and later joined the famous tea clipper 'Cutty Sark' as carpenter's mate on its maiden voyage. He settled on Vancouver Island for a time but then returned to take the harbourmaster post. The harbour closed in 1929 and narrowly escaped being filled with coal waste like West Wemyss, but was eventually rescued by the yacht club which was so busy when we arrived. A very interesting day out.

Jackie Muscott

Kirkliston Old Railway and Pepper Wood, Kirkliston NT 127745

6th May 2015

Leader: Malcolm Lavery

This outing had originally been planned for Craigie Hill, but the large quarry complex was closed to the public because of rock falls. It was decided to transfer the excursion to this popular linear walk from Kirkliston to Pepper Wood which often produces a plentiful variety of plants, birds and butterflies. The major part of the walk proceeds along the path of a former railway branch line which was opened in 1866 and closed a century later in 1966.

Two butterfly species obliged almost immediately - a male orange tip *Anthocharis cardamines* sitting on one of its larval food plant, garlic mustard *Alliaria petiolata*, and a green-veined white *Pieris napi*. A 7-spot ladybird *Coccinella 7-punctata* added to the early tally of insects.

Ditches along the edges of the railway path gave a good home to damp-loving marsh marigold *Caltha palustris*, yellow flag iris *Iris pseudacorus* and great willowherb *Epilobium hirsutum*. On the bird front the calls of willow warbler *Phylloscopus trochilus* and chiffchaff *P. collybita* were heard, and the periodic fluted song of the blackcap *Sylvia atricapilla* suggested that at least two territories lay along the path.

Midway along the walk was a mixed avenue of mature pines with Scots *Pinus sylvestris* and Corsican *Pinus nigra* varieties. The song of a flock of goldfinches *Carduelis carduelis* could be heard from the canopy and a variety of tit calls including blue *Cyanistes caeruleus* and great *Parus major* were heard from the lower bushes of hawthorn *Crataegus monogyna*, elder *Sambucus nigra* and hazel *Corylus avellana*.

We detoured off the railway to visit Pepper Wood, a small SWT reserve which has ash *Fraxinus excelsior*, oak *Quercus* sp. and elm *Ulmus* sp. among the principal tree types. Many plant species are found there, both native and those that have been introduced at various times from the 19th century onwards.

Woodruff *Galium odoratum* and wood anemone *Anemone nemorosa* were widespread, with ramsons *Allium ursinum*, ground ivy *Glechoma hederacea* and cowslips *Primula veris* also in flower. A large area of white butterbur *Petasites album* occurs at the far end of the wood and opposite-leaved golden saxifrage *Chrysosplenium oppositifolium* lined the banks of a small stream that flows through the middle. Introduced plant species included leopard's bane *Doronicum orientale*, lords and ladies *Arum maculatum*, pink purslane *Claytonia sibirica* and angular Solomon's seal *Polygonatum odoratum*.

Some time was spent looking for the rare May lily *Maianthemum bifolium*, a species similar to lily of the valley *Convallaria majalis*, which occurs in ancient woodlands. Unfortunately, none were found on this occasion. The reserve has a small pond which has been cleared out in recent years and which usually has tadpoles in spring and looks like a good newt habitat, but the surface was rather too weedy to see much.

We retraced our steps to Kirkliston along the former railway, having enjoyed some good sunshine and seen a good many typical spring flowers plus a few butterflies and birds - all in all a good late substitute for the original excursion.

Malcolm Lavery

Woodcockdale, Linlithgow NS 97759

9th May 2015

Leader: Jackie Muscott

This excursion involved a short walk along the Union Canal before turning onto a path by the River Avon, which seems to be part of the John Muir Way, and leads to Linlithgow Bridge. We peeled off earlier however to investigate an area of old gravel pits, now a nature reserve with a sizeable loch. Along the towpath cuckoo flower *Cardamine pratensis*, pignut *Conopodium majus*, sweet cicely *Myrrhis odorata*, water avens *Geum urbanum* and hybrid avens *Geum x intermedium* were all in flower, while leaves of water plantain *Alisma plantago-aquatica* and water dock *Rumex hydrolapathum* were visible in the water. The latter two species seem to have spread since the canal was re-opened; indeed, until quite recently, the water dock could only be found in the Falkirk area. Chiffchaffs *Phylloscopus collybita* had already arrived a month before when we did the recce, but now they had been joined by willow warblers *P. trochilus*, both singing. Butterflies had also appeared, orange tips *Anthocharis cardamines* and green-veined whites *Pieris napi* being on the wing, while alder flies *Sialis lutaria* were resting on emergent vegetation.



Townhall clock

The footpath by the river was decorated by patches of violets *Viola riviniana* and moschatel or townhall clock *Adoxa moschatellina* with its strange little inflorescence – 5 little yellow flowers, one on each of four sides and one on top. Further on were wood anemones *Anemone nemorosa*, leopard's bane *Doronicum pardalianches* and dog's mercury *Mercurialis perennis*, some of which, near a stand of grey poplar *Populus x canescens* were infected by an orange rust *Melampsora populnea*. This rust requires both hosts to complete its life cycle.

Dippers *Cinclus cinclus* and grey wagtails *Motacilla cinerea* were seen in the river and both 7-spot and 10-spot ladybirds *Coccinella 7-punctata* and *Adalia 10-punctata* were recorded. Bumblebees began to put in an appearance as we neared the more open area round the loch, and it was here that Rob turned over a log and discovered a pseudoscorpion - a small type of spider with big claws. It was the

first he had ever seen, and caused much excitement.

Near the Loch was a large patch of wood small reed *Calamagrostis epigejus* a plant that had me very confused when I first found it in drainage ditches on the Kerse of Kinneil. I originally recorded it as reed canary grass. Now however it forms large stands on the Kerse, crops up in waste places in Bo'ness and is becoming generally more widespread. Apparently it's also spreading in Fife - perhaps the result of climate change. Other tall water plants included bulrush *Typha latifolia*, wild angelica *Angelica sylvestris*, water horsetail *Equisetum fluviatile*, brown sedge *Carex disticha* and assorted rushes *Juncus* spp., and there were numbers of little frogs *Rana temporaria* around.

Birds on the water included a pair of swans *Cygnus olor* at nest, the usual mallards *Anas platyrhynchos* and some giggling little grebes *Tachybaptus ruficollis*. A pair of great crested grebes *Podiceps cristatus* entertained us with their courtship display until they were rudely interrupted by two pairs of fighting coots *Fulica atra*. The coots were going at it hammer and tongs, male to male, female to female (or so we assumed) and appeared to be trying to drown each other. Interestingly we saw something similar going on at Linlithgow Loch some 10 days later.

Returning along the path we noticed a badger sett *Meles meles* near a bridge. We had seen one hole on a previous visit some years ago, but now there were more. A good end to the day!

Jackie Muscott

Trinity Railway Walk, Edinburgh NT 248763

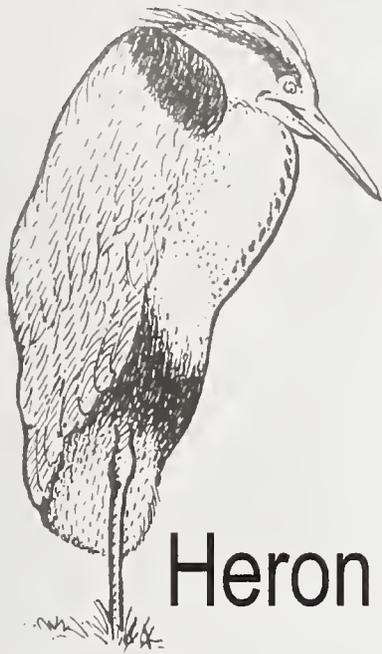
13th May 2015

Leader: Heather McHaffie

Nine of us met at the old railway bridge in Clark Road and walked along to the five-ways junction.

We headed down towards Warriston and saw good quantities of the usual common flowers. We looked at the lesser celandine *Ficaria verna* to see if it had tubers in the axils of the leaves. They did, and this showed that we were looking at the ssp. *verna* which has four sets of chromosomes rather than two. We saw four large ferns; the common lady fern *Athyrium filix-femina* with frilly pinnae, the common male fern *Dryopteris filix-mas* and the golden-scaled male fern *Dryopteris affinis* agg.. As they were still expanding their croziers the difference between the two male ferns was very apparent with the brighter golden-scaled male ferns standing out in the emerging spring vegetation. We also saw the broad buckler fern *Dryopteris dilatata* with widely spaced side branches that branched three times.

With the usual sense of disorientation induced by walking along below our usual ground level we were pleased to see the sign for Ferry Road. Just before the bridge here we saw a group of shrubby trees of the small-leaved elm *Ulmus minor* growing on the east bank. Like the other elms they too were shedding their winged seeds, but they were much smaller.



Heron

We walked on, rising onto an embankment past the allotments at Warriston. We passed nursery children in fluorescent yellow waistcoats and saw an active group of them in an allotment with their teachers. Heading straight on we came to the weir on the Water of Leith where a heron *Ardea cinerea* is always seen. There was also a pair of hopeful swans *Cygnus olor*. There were many birds calling in the trees. Some ash *Fraxinus excelsior* grew in the stonework on the riverbank and was conveniently at eye-level. It had nearly finished flowering. Ash is unusual insofar as individual trees can be male one year and female the next, or even hermaphrodite. We saw one tree with both male and female flowers and the developing ovaries on the female trees were clearly seen mixed with the remains of stamens. Further downstream we looked over the wall to see a fig-tree *Ficus carica*. Another larger group of figs grows away from the river below the gable end of a tenement. These had been cut down but were springing up again.

Turning north again we walked back under Ferry Road into Victoria Park. We passed the bowling greens, part of which were now assigned for allotments. We very soon passed Trinity School and the SWT meadow with the cowslips *Primula veris*. Old railway yards north of this meadow are occupied by trees overgrown by ivy *Hedera* sp. with dense patches of few-flowered leek *Allium paradoxum*. Some fallen trees have been removed and the lighter areas had more flowering plants. We returned to the five-ways junction and had come full-circle.

Heather McHaffie

Humbie Woods, by Humbie Church NT 461638

16th May 2015

Leader: Lyn Blades

A group of 12 met by the church, some having arrived by the scenic route dictated by a satnav. We started by looking at the tall plant not yet in flower growing along the high wall, first noted by two ENHS lady members many years ago. It is related to the seaside scurvy grass to which it bears little obvious resemblance but it is called tall scurvy grass *Cochlearia megalosperma*. Its seeds were apparently used in phytochemistry in Nottingham and plants have become naturalised there.

Humbie is one of only two other known sites.

Going into the wood we seemed surrounded by birdsong: chaffinch *Fringilla coelebs*, great tit *Parus major*, blackcap *Sylvia atricapilla* and willow warbler *Phylloscopus trochilis*. Alas deeper in it seemed to fade and I had the feeling the birders had a slightly disappointing day. Not so the plant hunters: if there is such a thing as a perfect spring wood this is it. Everything you would hope to find is here. At first glance it's all greater woodrush *Luzula sylvatica*, dog's mercury *Mercurialis*

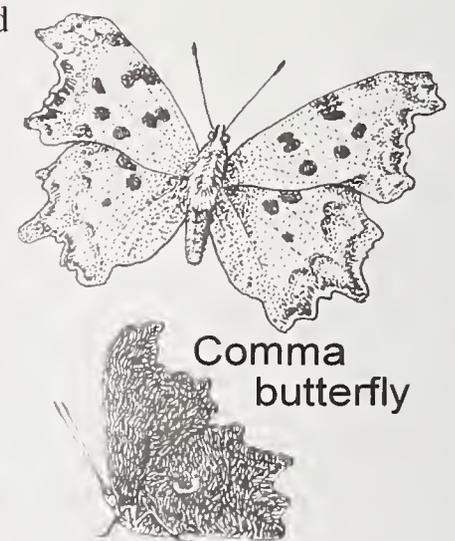
perennis and tuberous comfrey *Symphytum tuberosum*, but then you come across swathes of wood anemone *Anemone nemorosa* and wood sorrel *Oxalis ascetosella*. Woodruff *Gallium odoratum* is here too and a bit of searching uncovered fading townhall clock *Adoxa moschatellina*. The path was lined with wood speedwell *Veronica montana* and the occasional violet *Viola riviniana*. Wood sanicle *Sanicula europaea* will flower later in the summer. There's a real mixture of young trees here: oak *Quercus robur*, elm *Ulmus* sp., lime *Tilia* sp., rowan *Sorbus aucuparia*, sycamore *Acer pseudoplatanus* and beech *Fagus sylvatica*. Wilma pointed out two tall Norway spruce *Picea abies* which are not usually planted as specimen trees. Squirrels had been active in this area, but which? We took an early lunch while the sky was blue before making our way towards the river. The final descent is narrow and a bit muddy so I was watching my feet and managed to miss the pretty moss David had told me about, *Tetraphis pellucida*. It's not rare but I'd never been lucky enough to find it. I did see my pet *Rhizomnium punctatum* which likes damp places. By the end of the day our combined bryophyte total was well over 30.

It was all change by the river. Hard fern *Blechnum spicant* was here along with ramsons *Allium ursinum* and opposite-leaved golden saxifrage *Chrysosplenium oppositifolia*: thankfully few-flowered leek *Allium paradoxum* was completely absent.

We saw one or two orange tip butterflies *Anthocharis cardamines*, and there might have been a green-veined white *Pieris napi*. There were not many bees. Jean Long found a small moth with extremely long silvery antennae found to be a green longhorn *Adela viridella*. Other finds were larch ladybirds *Aphidecta oblitterata* and a violet ground beetle *Carabus violaceus*.

On return we potted around the peaceful churchyard where Katherine had a fleeting glimpse of a comma butterfly *Polygonia c-album*. Some of us called in at the café at the foot of Soutra on the way home. Picture windows here give glorious views back towards Edinburgh and out over East Lothian making it a perfect place to end the day.

Jean Murray



Comma butterfly

Linlithgow Loch NS 996770

20th May 2015

Leader: Kathy Buckner

This stroll around Linlithgow Loch took some two hours on a blowy but dry May afternoon. We met at the St Ninian's Way car park, and set off in a clockwise direction on the main lochside path, crossing a small bridge from which we saw a shoal of sticklebacks *Gasterosteus aculeatus*. Coots *Fulica atra* and mute swans *Cygnus olor* were nesting near the shore, and there were several great crested grebe *Podiceps cristatus* and tufted duck *Aythya fuligula* on the open water. A family of long-tailed tits *Aegithalos caudatus* hunted for food in a tree at the water's edge. Many swifts *Apus apus* and a few swallows *Hirundo rustica* chased insects above the loch.

Kathy had given me a copy of The Northwestern Naturalist which had an article about swifts by Edward Mayer of Swift Conservation - www.swift-conservation.org. The following information on swifts is taken from that article.

Scotland lost 57% of its swifts between 1995 and 2011. As swifts nest in open eaves, under roof tiles and in holes in walls, their nest sites are lost as buildings are renovated. Most new buildings are unsuitable for swift nest sites. Swifts are slow breeders and need help if they are to regain their former numbers. If you want to help them you could put up a swift nest box, available from ornithological supply companies. Other measures are to encourage developers, local authorities and householders to preserve existing nest places, replace any that are lost and build internal nest places into as many new buildings as possible. A total ban on insecticides, including neonicotinoids in the urban areas where swifts nest, would also help. The decline in other insectivores such as cuckoos *Cuculus canorus* and spotted

flycatchers *Muscicapa striata* may be linked to these insecticides.

To return to our outing, Sarah found a female common blue damselfly *Enallagma cyathigerum* resting on an aspen *Populus tremula* twig. We also came across alder flies *Sialis* sp, some shiny leaf beetles on aspen leaves, a male orange tip butterfly *Anthocharis cardamines* and the occasional bumblebee.

From time to time we saw the botanical rearguard following us on the other side of the loch. As we returned to St Ninian's Way we passed the feeding throng of mallards *Anas platyrhynchos*, coots, mute swans and lesser black-backed gulls *Larus fuscus*. The anglers were berthing rowing boats after their day's fishing. Thanks to Kathy for an enjoyable afternoon.

David Adamson

Scotland's Big Nature Festival - 23rd May 2015

This was hosted by RSPB at its new venue on Levenhall Links, East Lothian. The ENHS excursion programme had kept this weekend free so I went for a morning and enjoyed visiting a wide variety of stalls, exhibits and workshops. There was a varied programme over the two days and I attended this talk with Ptolemy; Patterns and Implications of Individual Diet Specialization in a Generalist Predator Population by Dr Julien Terraube-Monich, the Watson Raptor Science Prize 2015 Runner-up, based at the Section of Ecology, Department of Biology, University of Turku, Finland. The session was chaired by Roger Crofts, Director of Watson Birds. Dr Terraube-Monich and his colleagues, David Guixé and Beatrix Arroyo published their scientific paper, 'Diet composition and foraging success in generalist predators: Are specialist individuals better foragers?' in Basic and Applied Ecology.

Their study considered variations in the diet of radio-tracked male Montagu's harriers.

The East Lothian Council marquee showcased several of the county's sites, popular for many ENHS outings. Scottish Power were engaging as many people as they could with their plans for ash lagoons by 2017.

There were lots of activities for children such as pond dipping and watching bird ringing. The event was blessed with sunshine and I clearly underestimated how much time was needed to make the most of the event.

Pauline King

Hadfast Valley, near Cousland NT 379684

27th May 2015

Leader: Pauline King

This has been a ringing site since the early 1970s and one of the first in Scotland. It is one of only a few in the country to have continuous records for over 40 years.

The rangers are undertaking the Constant Effort Site (CES) recording from May to September. The CES scheme is the first national standardised ringing programme and has been running since 1983. Ringers operate the same nets in the same locations over the same period at regular intervals through the breeding season at over 120 sites throughout Britain and Ireland. There are only 14 sites in Scotland. The scheme provides valuable trend information on abundance of adults and juveniles, productivity and also adult survival rates for 25 species of common songbird.

The information board at the site car park had information about a goldcrest *Regulus regulus* which at 7am on 1st October 2013 was ringed at the Island Bird Observatory of Stora Fjäderagg at Holmon, Vasterbotten in the North of Sweden. Forty days later he was trapped at Hadfast Valley, having flown over 1595km. Statistics from bird ringers show that he weighed 5.5 grammes and had a wing length of 55mm.

Our excursion was not specifically aimed at this activity, however, on the recce I was able to observe two rangers' ringing activities when a male black cap *Sylvia atricapilla* was brought back from one of seven sets of mist nets to have his statistics recorded. On examination, by blowing on the chest feathers it could be seen that he was brooding a clutch of eggs as part of the chest was bare of feathers and this brood patch was engorged to help the transfer of heat to eggs while incubating.

During the evening it was cool and damp, evidenced also by the constant crackling of the overhead power lines which run the length of the site and we spent just an hour on the looped path round the base of the steep valley sides. There was an abundance of white dead-nettle *Lamium album* but no sunshine to bring out bees and butterflies. The three main ferns seen were broad buckler *Dryopteris dilatata*, male *D. filix-mas* and lady *Athyrium filix-femina*.

The short-cropped meadow by the car park showed large numbers of common spotted orchid leaves *Dactylorhiza fuschii* which will be worth revisiting when they bloom, along with twayblade, *Neottia ovata*. Also, there was abundant bright green moss probably *Plagiomnium undulatum*. Another moss appears to be *Cirriphyllum piliferum*. The dingy moss at the dried up pool, with water crowfoot, was *Leptodictyum riparium* which David collected last year near Chalkieside. A moss that was growing on bark appears to fit the description of *Orthotrichum tenellum* in that the green calyptra, or hood, covers the spore capsule completely. However, that is a rare moss in the Lothians and may be the more common *O. affine*. There were many other mosses, eg *Calliergonella cuspidata*, *Thuidium tamariscinum* and the elder *Sambucus nigra* had good coverings of moss and lichen.

Other plants included: Good King Henry *Chenopodium bonus-henricus*, monkshood *Aconitum napellus*, germander speedwell *Veronica chamaedrys*, thyme-leaved speedwell *Veronica serpyllifolia*, bulbous buttercup *Ranunculus bulbosus*, Russian comfrey *Symphytum x uplandicum*, crosswort *Cruciata laevipes*, pignut *Conopodium majus*, sandwort *Moehringia trinerva* and a fungus St George's mushroom *Calocybe gambosa*.

Of birds: blackcap *Sylvia atricapilla*, chiffchaff *Phylloscopus collybita*, willow warbler *P. trochilus*, bullfinch *Pyrrhula pyrrhula*, yellowhammer *Emberiza citrinella* and songthrush *Turdus philomelos*.
Pauline King

Dunkeld Area Walk, Craiglush to Dowally NO 045447

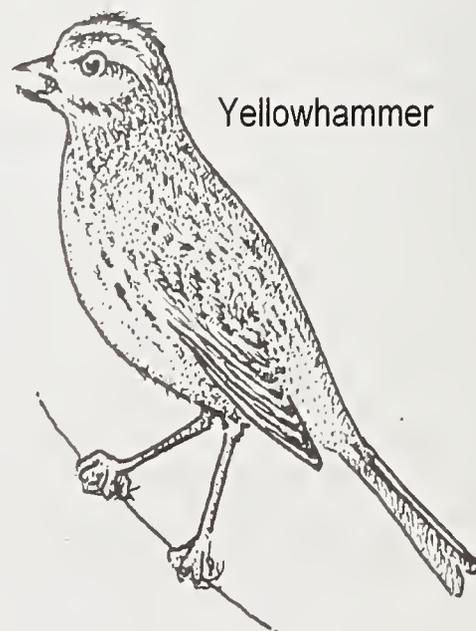
30th May 2015

Leader: David Adamson

Our coach left Waterloo Place at 08.40 and arrived at the Loch of Craiglush lay-by, where our walk began, just after 10.30. Our destination was Dowally, following the excellent Atholl Estates path network past Mill Dam, Rotmell Loch and Dowally Loch. We were picked up near the Dowally Craft Centre and set off back to Edinburgh around 15.30, stopping at the Birnam Institute for ice creams.

These are the facts of today's outing. The breeze that had blown throughout May was still with us, but the sun at last shone with some strength and the weather began to resemble early summer. Our party of seventeen set off through larch *Larix* sp. woodland, soon opening to give broad views of the hills to the north and west. The spring flowers were near their best, and we soon came across the single white stars of chickweed wintergreen *Trientalis europaea*. The natural history interest was not confined to plants; Rob identified a beetle with a deep green pronotum and copper wing cases as a garden chafer *Phyllopertha horticola*. To begin with, birds had been few and far between, but as we approached the Glack we heard a cuckoo *Cuculus canorus*, and soon the song of willow warblers *Phylloscopus trochilus* seemed to be all around us.

At one stage Mike and Ian were ahead of the rest, and were rewarded with great views of an osprey *Pandion haliaetus* fishing. Meanwhile Sarah and the rest of the main group were a matter of feet away from a spectacular yellowhammer *Emberiza citrinella*. The tail-end Charlies, including myself, missed all this avian interest, but had some compensation in finding the leaves of lesser twayblade *Neottia cordata* growing with marsh pennywort *Hydrocotyle vulgaris* and flowering butterwort *Pinguicula vulgaris*, all beside Rotmell



Loch. Sarah-Louise kindly waited behind to show us a group of eight plants of white flowering bugle *Ajuga reptans*.

When we caught up with the others near Dowally Loch the osprey obligingly reappeared, and Fraser at last saw a viviparous lizard *Zootoca vivipara*. He had seen his first adder *Vipera berus* only a few weeks before, so the saying about waiting for buses is apparently true for reptiles as well. Interest then switched to the crags above the loch where we found one large and four small plants of wall pennywort *Umbilicus rupestris*. In his Flora of Perthshire, published in 1898, Francis Buchanan White records this plant growing on walls beside the Tay at Dunkeld, but it was uncommon then and its occurrence today was totally unexpected.

To the writer's great satisfaction he found moonwort *Botrychium lunaria* growing just off the path at the north end of Dowally Loch. This small fern then became the centre of attention for the photographers. At the Raor Lodge we could hear the sound of guinea fowl *Numeda meleagris* coming from the other side of a stone wall; when Ptolemy and Fraser looked over the dyke the guinea fowl took exception to this and the noise increased tenfold.

There was a rather unwell curlew *Numenius arquata* in the meadow below the path down to Dowally, and Jean pointed out a red deer hind *Cervus elaphus* just before it disappeared behind the trees. There was also a dead shrew *Sorex araneus*, some oak apples *Biorhiza pallid* and the black and green bug nymph that Rob identified as *Calocoris alpestris*. Finally the coach was at Dowally to take us home at the end of an enjoyable day.

David Adamson

Callendar Park, Falkirk NS 887792

3rd June 2015

Leader: David Adamson

A group of seven gathered at the western entrance to Callendar Park for an afternoon exploration of this Falkirk Community Trust site. The woodland and the grounds surrounding Callendar House provided a good range of botanical species in flower including wood anemone *Anemone nemorosa*, bugle *Ajuga reptans*, yellow pimpernel *Lysimachia nemorum*, common spotted orchids *Dactylorhiza fuchsii* with highlights of pale sedge *Carex pallescens* and wood horsetail *Equisetum sylvaticum*. The afternoon remained dry with occasional spells of sunshine and three bumblebee species *Bombus pascuorum*, *B. hortorum* and *B. pratorum* and a few green-veined white butterflies *Pieris napi* were spotted.

The main excitement of the afternoon was provided by fantastic views of a Daubenton's bat *Myotis daubentonii* at Callendar Loch. The group stood at the loch edge and watched the bat at close range as it flew just above the water's surface repeatedly feeding. With bats being nocturnal mammals, observing a bat feeding during the day was definitely an unexpected sighting. However, this is not unusual bat behaviour, with research suggesting that daylight sightings of individual bats feeding are a potential result of inadequate nocturnal foraging. This was a real treat to be able to observe the feeding behaviour of this species when there was sufficient light to detect its features using binoculars.

Katherine White



Tentsmuir Point, Kinshaldy NO 498242

6th June 2015

Leader: Wilma Harper

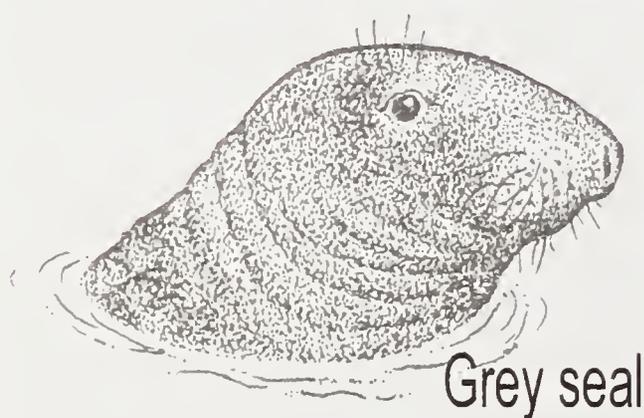
A busy day at the NNR started with the group heading out in windy weather, passing the ice house

and out of woodland into more open habitat near the dunes. One early sighting was a cinnabar moth *Tyria jacobaea* flying past, the first of many more insects to come. It was not long after that some of the group came across juvenile siskins *Carduelis spinus* in hawthorn *Crataegus monogyna*. Despite the brisk wind from the North Sea, spirits were high, especially when David came across a plant in the form of adder's-tongue *Ophioglossum vulgatum*. This is a rare fern, roughly 10cm high. Once the rest of the group were alerted of this great find, they followed the same route along the east side of the woodland to see it.

A few of us stayed further ahead of the main group and it was at this point we heard a noise similar to white-tailed eagle *Haliaeetus albicilla*, a species which has bred in the area since their reintroduction to East Scotland. David, Ian, Fraser and I headed in the direction of where we thought the possible eagle was. After hearing the call again, we realised it was a green woodpecker *Picus viridis*. It just shows the problems of recognising calls in certain conditions. A detour in trying to see this bird did however lead to seeing the remains of the World War 2 concrete defences created by Polish forces, adding some historical context to the excursion.

After having lunch in the shelter of the forest, the group headed North towards the Tay Estuary. It was on this stretch of the route that we finally saw the green woodpecker as it flew off ahead of us. This group stumbled across some animal remains, on which were sexton beetles *Nicrophorus* sp. and nearby were red-breasted carrion beetles *Oiceoptoma thoracicum* identified by a reddish brown thorax. These carrion beetles are vital to decompose corpses. Aphid gall *Adelges abietis* on Norway spruce *Picea abies* was a reminder of other interactions insects have with the environment. At the estuary, many plants were found alongside the beach, including goat's-beard *Tragopogon pratensis*. This is also known as Jack-go-to-bed-at-noon due to the flowers only opening in bright sunny mornings.

Further along the path some orchids were spotted, including early marsh orchid *Dactylorhiza incarnata* towards the end of the excursion. The rare coralroot orchid *Corallorhiza trifida* was located. Its rhizomes are coral-like and are invaded by a fungus which provides nutrients to the plant. The coralroot fungus is a saprophyte, obtaining nutrient from decaying vegetation and the plant is parasitic on the fungus. Another rarity was found in the form of moonwort *Botrychium*



lunaria, adding to the group's joy. Soon after, when Jackie and I were at the back of the group having followed two small copper butterflies *Lycaena phlaeas*, we came across a green hairstreak butterfly *Callophrys rubi*. This is a beautiful butterfly which has green colouration on the underwing and the main food plant of the caterpillar is blaeberry *Vaccinium myrtillus*. The excursion ended watching the grey *Halichoerus grypus* and common seals *Phoca vitulina* on Tentsmuir Beach. This is one of the few places in the UK both species can be seen hauled out. The two can be told apart by the dog like appearance

of the grey seal and the flatter face of the common seal.

Ptolemy McKinnon

Figgate Burn Park, Edinburgh NT 293732

10th June 2015

Leader: Patrick Chaney

This excursion was the final leg of a series of walks led by Mary Clarkson over the last three years following the course of the Braid Burn from the Pentlands to the sea. The Figgate Burn is the same burn as the Braid Burn, only the name has been changed. The excursion was originally scheduled for 2014 when it was unfortunately cancelled due to heavy rain. However, this year we had a lovely day and the warmest of the year to date. Seventeen Nats turned up to enjoy the walk.

David Adamson got us off to a good start by identifying a rare tree bumblebee *Bombus hypnorum* at

the entrance to the Park. As we walked downstream we found some water figwort *Scrophularia auriculata* not yet in flower, and close by was some bright yellow monkeyflower *Mimulus guttatus* and many species of grass including reed sweet grass *Glyceria maxima*. There was also a species of hybrid crack willow *Salix x rubens* with the longest catkins I have ever seen. A big stand of box *Buxus sempervirens* was also in splendid flower. The pond had abundant common spike-rush *Eleocharis palustris* and many clumps of flowering water forget-me-not *Myosotis scorpioides*. The park has a good balance between recreational and conservation areas and is well worth a visit. The pond has a sturdy boardwalk along the Portobello end providing good opportunities to see aquatic plants and waterfowl.

We also found some eastern rocket *Sisymbrium orientale* in fruit under the pedestrian overpass just outside the park on the way to Portobello. Red valerian *Centranthus ruber* was also abundant close to this area. This species seems to be expanding in area and abundance all over Edinburgh in recent years. We reached the sea at Portobello Promenade after watching a dipper *Cinclus cinclus* foraging in the burn by Adelphi Road car park. Just where the burn enters the Firth of Forth there were small clumps of sea sandwort *Honckenya peploides* and sea milkwort *Glaux maritima*, as well as many swallows *Hirundo rustica* hunting and along the shoreline.

On the way back to the park we found the fairly uncommon squirrel-tail fescue *Vulpia bromoides* growing at the Hamilton Drive entrance.

The Portobello area was originally known as Figgate Muir and may have been used as a pasture by the monks of Holyrood Abbey. Some internet sources claim that the name Figgate comes from the Saxon term for 'cow ditch', others that it means 'cow road' I could not find any evidence for either of these claims.

Figgate Whins is listed as a site for many botanical observations in Balfour and Saddler's 'Flora Edinburgensis' of 1871. The area now occupied by the park was feued to a Mr. William Jamieson in the late 18th century. He discovered a valuable bed of clay close to the burn, and the pit from which this was extracted is likely the site of the present pond. He built a brick and tile works on the site and later an earthenware pottery factory. Some of the pottery kilns still stand close to the sea.

Patrick Chaney

Vogrie Country Park, Pathhead NT 375631

13th June 2015

Leader: Rob Wallace

This was a relatively short, clockwise walk around Vogrie looking for insects in a mixture of woodland, scrub and meadow. Despite the day's damp weather, making a sweep-net less useful, we still saw a good variety of species.

Walking through an initially wooded area we came across some sort of *Peziza* fungus growing in some wood-chippings. Under the nearby logs were a lot of woodlice *Isopoda*, a flat-backed millipede *Polydesmus* and a ground-beetle which was likely to have been the very common *Nebria brevicollis*.

Sweeping from long grass and herbage revealed several of the species of small, predatory, soldier beetle common at this time of year including *Cantharis nigricans*, *C. pellucida* and *C. paludosa*. Also present were pea weevils and nettle tap moths. Amongst the hawthorn *Crataegus monogyna* blossom was the rather rugose click beetle *Denticollis linearis*, a large-ish weevil with a brown checker-board pattern called *Otiorhynchus singularis*, lots of tiny pollen beetles from the family *Nitidulidae* and several specimens of *Anaspis maculata* – a small species of false flower beetle. A small meadow nearby contained oak trees *Quercus* sp. with some low boughs which had quite a few caterpillars of the mottled umber moth *Erannis defoliaria*. This caterpillar is quite striking with red and yellow streaks running down its flanks. Also present was a rather beautiful true bug called *Rhodomiris striatellus*. The stinging nettles *Urtica dioica* in the area were full of the bug *Liocoris tripustulatus* which feeds exclusively on this plant.

Back inside the woodland we rounded a pond and could hear the noise of begging birds. We spotted a tree-hole high up and a few feet off the path, and some of us were treated to views of great spotted

woodpeckers *Dendrocopos major* visiting their young. From here the broad-leaved woodland dimmed into conifer plantation which lead us south along the Tyne Water. The temperature dropped noticeably and we didn't see as many insects. In an effort to rustle something up I flipped a piece of horse-dung and found a few dung beetles *Aphodius rufipes* and some species of *Histeridae* beetle, these are predators of dung feeding insects with impressive jaws for their size.

Further on the path opened up to riverside meadows containing large quantities of the common micro-moth *Micropterix calthella* on buttercups. This moth is in a basal family within the *Lepidoptera* and doesn't have the highly modified proboscis for drinking nectar seen on other moths. Instead it has mouthparts capable of chewing and feeds on pollen. Also in this area were a few snipe flies including *Rhagio scolopaceus* and *Rhagio notatus* watching and hunting over the meadow.

On the way back towards the car park, we diverted into a patch of woodland known for its small population of herb paris *Paris quadrifolia*. En route to this patch we found a small longhorn beetle *Grammopera ruficornis* in the hawthorn, and in the grass, a crane fly with painted wings *Tipula maxima* which is the largest species of its family found in the UK.

Thanks to everyone who came on what started out as an unpromising day.

Rob Wallace

Hermant Quarry and nearby habitats, Polbeth NT 029638

17th June 2015

Leader: Barbara Sumner, BSBI recorder for Midlothian

On an overcast and breezy afternoon, ten members of the ENHS and a guest joined me on a field trip to Hermant Quarry and nearby habitats, near Polbeth. Although in the Local Authority administrative area of West Lothian, this site is in the vice-county of Midlothian (VC 83), so it falls within my area.

Historically, Hermant Quarry was a sandstone quarry which fell into disuse and then became colonised by a variety of grassland plants. In 1990 SNH designated the quarry area as an SSSI on this basis. However, in subsequent years scrub developed and shaded out some of the grassland species, reducing the biodiversity and leading to a decision to remove the SSSI designation in 2009. Since then, the quarry area and nearby habitats have been considered together and recently re-designated as a Local Biodiversity Site, with the site name of 'Parkhead East and Hermant Quarry.' We started our perambulation from the Chapelton housing estate in Polbeth and walked under the railway to the riverside of the Harwood Water, a tributary of the R. Almond which it joins at the west end of Livingston. Among the lush grasses near the river were some particularly tall grasses, identified as tall fescue *Schedonorus arundinacea*. Among the shorter grasses we were pleased to find some plants of greater butterfly orchid *Platanthera chlorantha*, one of them in bud. There were also leaves of common spotted orchid *Dactylorhiza fuchsii*. A clump of pale lady's mantle *Alchemilla xanthochlora* was in flower. Scattered in the damp riverside grassland were purplish plants of marsh ragwort *Senecio aquaticus* in bud, and pink flowers of ragged robin *Silene flos-cuculi*. At the riverside were some budding plants of monkey flower, not identifiable to species on this occasion, but from flowers seen on previous occasions found to be *Mimulus x robertsii*, a hybrid.

Returning to the path we passed a hybrid hawthorn *Crataegus x media*, which was a cross between hawthorn *C. monogyna* and Midland hawthorn *C. laevigata*. Next to that was a cultivated form of burnet rose *Rosa spinosissima*. We then crossed the river towards the quarry area, but before going up the hill to the quarry we made a diversion into the riverside vegetation. Water avens *Geum rivale* were abundant in this area, and in flower. Among these plants were scattered flowering clumps of smooth lady's mantle *Alchemilla glabra* and a moderate colony of common bistort *Persicaria bistorta*, showing many leaves and a single pink flower. A couple of good-sized frogs *Rana temporaria* made their escape as we returned to the path.

On re-joining the path we went uphill to the grassland and scrub among the hilly remains of the quarry. In this area there were roses, brambles and raspberries *Rosa canina* agg., *Rubus fruticosus*

agg. and *R. idaeus*. Among the ground flora were common vetch *Vicia sativa* in flower, and many plants of common toadflax *Linaria vulgaris*, not yet flowering.

We then entered the field east of the quarry area and went towards the pond. Among the trees round the pond was a horse chestnut *Aesculus hippocastanum*, still bearing blossom though past its best. In the pond yellow flag *Iris pseudacorus* was blooming colourfully and floating sweet-grass *Glyceria fluitans* more modestly. Around the pond edge were colonies of creeping Jenny *Lysimachia nummularia*, not yet flowering. Although a native British species, creeping Jenny is also a garden escape. It is common in central and southern Britain, but scarce in Midlothian. In the damp grass near the pond several plants of marsh foxtail *Alopecurus geniculatus* were flowering. Oval sedge *Carex leporina* was also flowering here.

On the way back from the pond to the quarry area we searched through the grassland for moonwort *Botrychium lunaria*, but with no success. This species had been recorded here in 1982. The grasses were quite tall and included sweet vernal grass *Anthoxanthum odoratum* and meadow foxtail *Alopecurus pratensis*, both flowering. In spite of the tallish grasses we still managed to spot some orchid leaves, mostly common spotted orchid. On previous occasions northern marsh orchid *Dactylorhiza purpurella* and greater butterfly orchid have also been recorded here.

Beside the path past the quarry spreading mouse-ear hawkweed *Pilosella flagellaris flagellaris*, a garden escape with lemon-yellow flowers, was a showy sight in a small area of barer ground.

Further on among shortish grasses several sedges were flowering, including glaucous sedge *Carex flacca* and carnation sedge *C. panicea*. Then, across the path at the foot of the quarry hillocks we spotted a monster! A reddish geum flower, as big as a *Geum* cultivar, was sprouting another flower stalk from its centre. We assumed a genetic or developmental accident had occurred.

Further on we entered a wooded area which continued down to the river and across the other side. There were many flowering hybrid geums in this area *Geum x intermedium*. Above the river on the other side fringecups *Tellima grandiflora* were flowering, and there was also a colony of pale bluish-pink bluebells with a robust upright habit, long but also quite broad leaves, and an inflorescence of broad, bell-shaped flowers in a loose spike all round the stem, like Spanish bluebell *Hyacinthoides hispanica*. However, these plants were large even for that species, which suggests a cultivar, but is more

likely to be the hybrid *Hyacinthoides x massartiana*, though closer in character to the Spanish bluebell than I have seen before. On the path slender rush *Juncus tenuis* was in flower. We soon came to a point where a small path led off to the right and went down to join the main path between Parkhead and Polbeth. To the right and left of the small path, much planting of broad-leaved tree species has recently been carried out in damp marshy ground among grasses and rushes.

At the junction with the main path two participants turned left to return to the railway station at West Calder, and the rest of the party turned right to return to the cars parked at Polbeth. On the main path to Polbeth we had a good view across the river to the steep side of the quarry, where a landslip had exposed a raw surface resembling that of a shale bing. A subsequent search by Google has revealed that shale workings preceded the sandstone quarry on this site.

As we went along the riverside we passed a small culvert where brooklime *Veronica beccabunga* and watercress *Nasturtium officinale* agg. were flowering. Further along the way we passed some willows. Beside the river was purple willow *Salix purpurea* and across the other side of the path among other tree species were several trees of a hybrid willow *Salix x smithiana*, a cross between goat willow *S. caprea* and osier *S. viminalis*. This hybrid had long leaves like osier, but with the colour and texture of goat willow.

As a final flourish, a clump of Pyrenean lily *Lilium pyrenaicum* was showing off its yellow flowers



Monster water avens

and orange anthers beside the railway fence. We then went under the railway back to our cars. Thank you to all participants for their interest and company, and to Jackie for making a plant list. Altogether over 130 vascular plants were recorded, and Jackie also added two rust fungi, three insects and a mite. Adrian recorded the molluscs and found 11 species, which he says was a moderate total. I hope all members of the party found something to interest them.

Barbara Sumner

Carlops Area Walk NT 161557

20th June 2015

Leader: John Palfery

Six of us made the walk from Carlops to the Borestane and back on a day that was overcast and cool for the time of year although some warm sunshine did break through at lunchtime. We followed the farm road first through pasture, then over the Fairliehope Burn and up past Fairliehope Farm to the North Esk Reservoir.

Our first stop was to observe an active sand martin *Riparia riparia* colony in a shallow eroded gully, no more than three-foot deep, beside the road. The nest tunnels are around two-foot long and excavation, using their bills and tiny feet, can take a pair fourteen days. They winter in the Sahel zone and in East Africa and, like many sub-Saharan migrants, they are an amber listed species. In the waterworks enclosure a richer, more colourful pasture is starting to develop: oxeye daisies *Leucanthemum vulgare*, an early coloniser of unsprayed grassland, sparkled and meadow buttercups *Ranunculus acris* carpeted the grass. At Fairliehope a nuthatch *Sitta europaea* was perched on the chimney of an old barn. Beyond, a great white swathe of hare's-tail cotton grass *Eriophorum vaginatum* covered the hillside; common cotton grass *E. angustifolium* was also seen during the walk.

The reservoir was built in 1850 to regulate the water supply to the paper mills in Penicuik and Thomas Stevenson, Robert Louis Stevenson's father, was the engineer. Until three or so years ago there was a thriving black-headed gull *Chroicocephalus ridibundus* colony but the present owner has used a dummy falcon, dangling CDs and electrical devices to discourage them, apparently because the noise of the colony annoys the fishermen. The geese have not been discouraged, however, for both the Canadas *Branta canadensis* and greylags *Anser anser* had goslings. A few common gull *Larus canus* also showed signs of breeding. A mass of common water-crowfoot *Ranunculus aquatilis* covered the north-west bay of the reservoir.

Heading on, we crossed the burn and climbed through heather *Calluna vulgaris* moorland. Along the burn whinchats *Saxicola rubetra* perched on fence posts, the males resplendent in their black-brown heads, white supercilia and cinnamon breasts. There is a 'colony' of these delightful chats here. They are summer visitors, unlike their close congener, the resident stonechat *S. torquata*, and winter south of the Sahara. Numbers in Britain more than halved between 1995 and 2008 and they are amber listed.

As we began to climb, we came across the first of the insectivorous plants seen, a colony of common butterwort *Pinguicula vulgaris*, some still in flower, in a wet flush. There were plenty of meadow pipits *Anthus pratensis* but few other birds in the moorland and the most exciting sighting as we approached the Borestane was not a bird but an insect, the green hairstreak butterfly *Callophrys rubi*. Although rather late in their season, we came across several males.

Undistinguished in flight, once settled their emerald green underwing lit up the overcast day! In this area blaeberry *Vaccinium myrtillus*, one of their food plants, was growing among the heather. The pupa is very attractive to ants, exuding a sweet secretion for them and also communicating with them using clucking and churring noises.

The Borestane is a natural slab of rock marking the pass where the old trans-Pentland track crosses the hills. In a hollow below it blaeberry, crowberry *Empetrum nigrum* and cloudberry *Rubus chamaemorus* were growing, together with our second insectivorous plant of the day, round-leaved sundew *Drosera rotundifolia*.



Figgate Park



Dunmore Loch



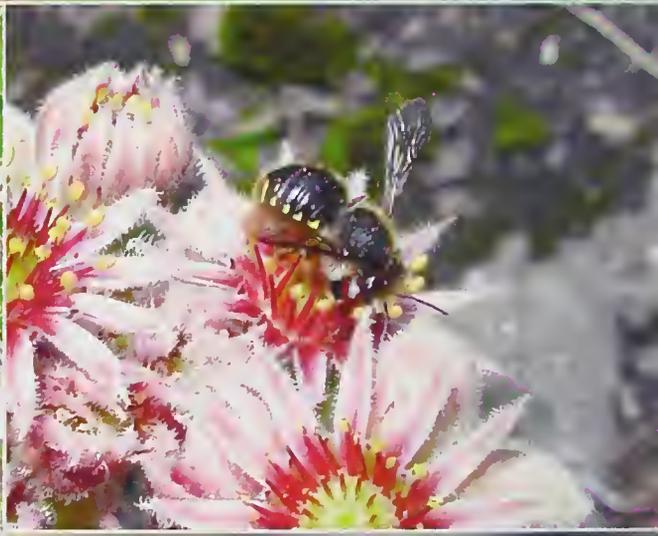
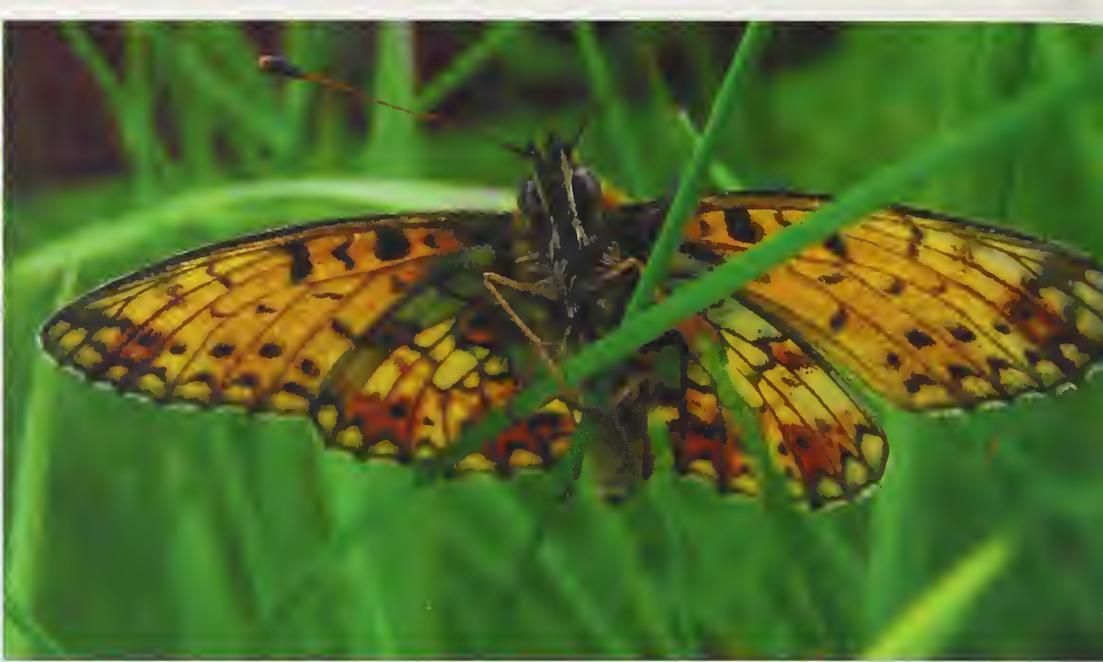
Gullane



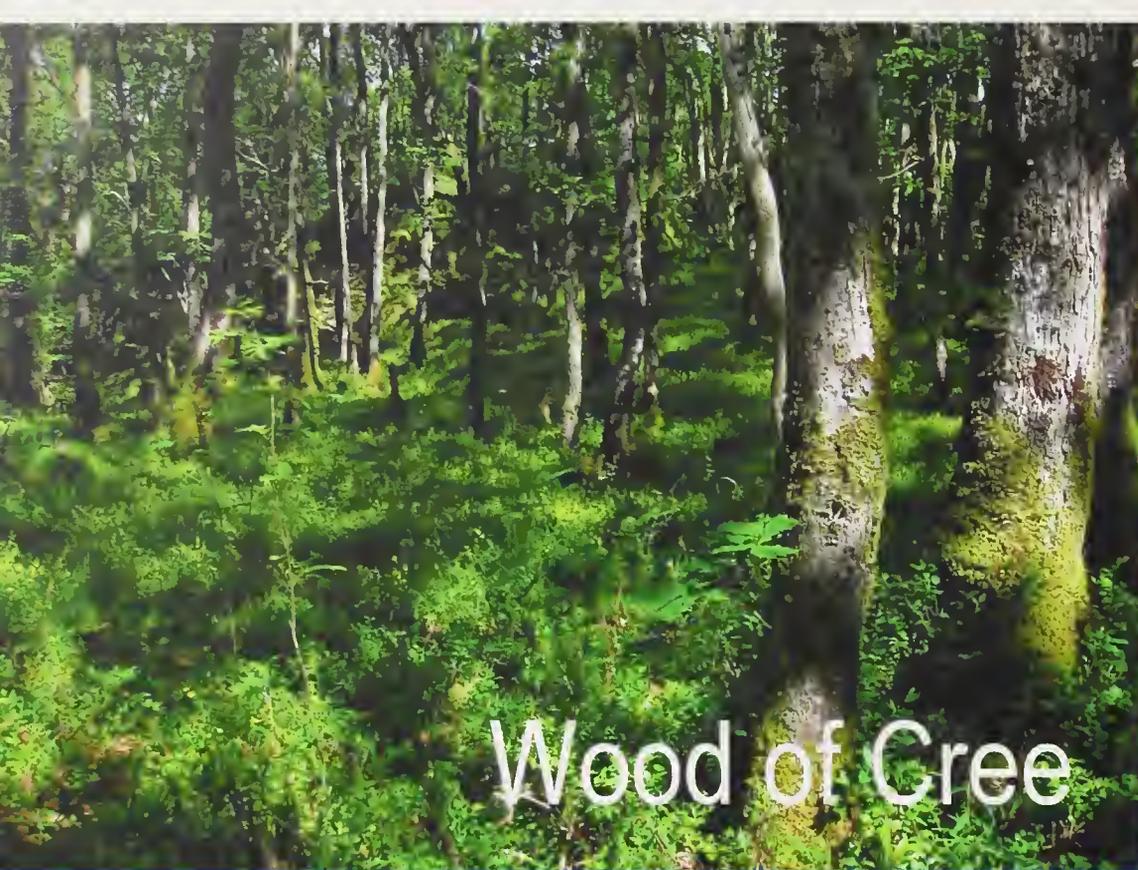
Luce Bay



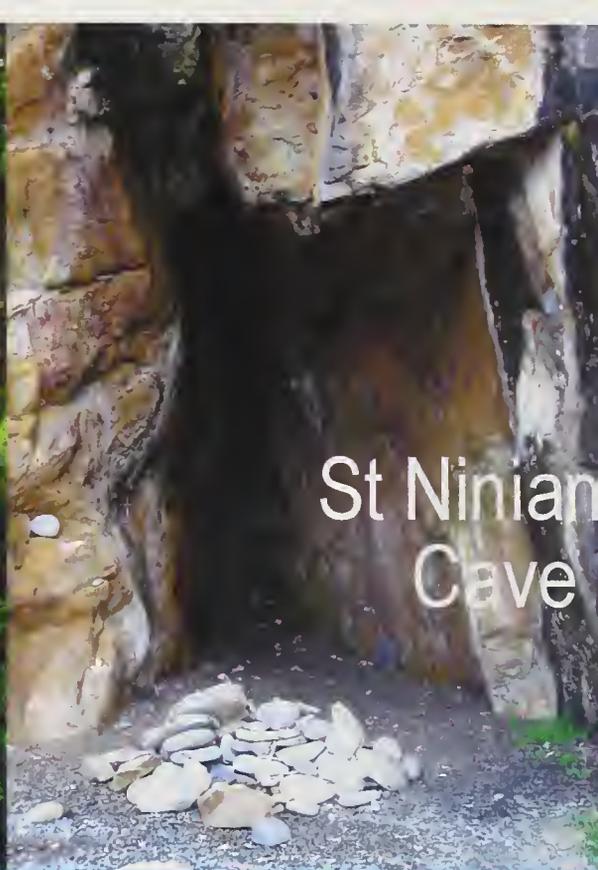
Leadburn Woodland







Wood of Cree



St Ninian's
Cave



Portobello



Tentsmuir



Killiecrankie



Palacerigg



Mull of Galloway



Humbie Wood

During lunch we enjoyed watching a pair of kestrels *Falco tinnunculus* diving and harassing a buzzard *Buteo buteo* and later a deep resonant croak alerted us to a raven *Corvus corax* overhead.



Hairy stonecrop

Some interesting plants, which we had missed on the outward walk, were seen on the return: common rock-roses *Helianthemum nummularium* above the track and, beside some muddy ruts approaching the reservoir, hairy stonecrop *Sedum villosum*. Near the reservoir dam were globe flowers *Trollius europaeus* and various ferns: male *Dryopteris filix-mas*, scaly male *D. affinis* and lady fern *Athyrium filix-femina*. Earlier we had found lemon-scented fern *Oreopteris limbosperma*.

Insects of note were dor beetles *Geotropidae*, click beetles *Elateridae* and a two-banded longhorn beetle *Rhagium bifasciatum*, a species normally found among trees but this individual deep in the heather. Some large, fast flying

moths flushed from the heather were perhaps northern oak eggars *Lasiocampa quercus callanae*. Sarah-Louise found three fungi species: *Galerina paludosa*, *Agrocybe elatella* and *Collybia dryophila*. I am grateful to David Adamson, Sarah-Louise Davies and Professor Roy Watling for help with the plants, insects and fungi seen.

John Palfery

Summer Excursions based at Newton Stewart

SWT Knowe Top Lochs, near Balmaclellan NX 705789

22nd June 2015

We arrived on a cool grey day shortly after noon. We were soon joined by five others and we had a quick sandwich. Alongside the burn which enters the reserve from the west, we were diverted by a sinuous stand of globe flowers *Trollius europeus* numbering several hundred blooms in prime condition. At the reserve entrance was the longhorn beetle *Rhagium bifasciata* sheltering under the information board. Our anti-clockwise circuit on the boardwalk took us through wet heath and peat bog. Unlike last time there were no adder traps, sheets of corrugated iron and strips of carpet. Too dreich! We did find an aberrant flower of water avens *Geum rivale* which was quite beautiful despite having its floral parts distorted dramatically, known as a pseudo-peloric aberration. At the first small lochan were both yellow and white water lilies, *Nuphar lutea* and *Nymphaea alba*. Recent rain had raised the water level and the 'brandy glasses' were struggling to stay afloat. A few red and blue damselflies were reluctant to fly but still avoided close examination. We were beginning to feel troubled by midges, even though the rain had become condensing mist. The suggestion to crush bog myrtle *Myrica gale* leaves and rub them on face and neck didn't seem to work. Maureen particularly seemed not to be midge proof.

We began to see a few moths such as silver-ground carpet *Xanthorhoe montanata* and yellowshell *Camptogramma bilineata* and even the odd green-veined white butterfly *Peiris napi*, but the search for large heath *Coenonympha tullia* in the wet heather was barren. A wind-blown Sitka spruce *Picea sitchensis* well-endowed with cones, drooped across our path and a shake of the branch produced hundreds of tiny spinning seeds slowly descending into the grass. A nice vision to depart with after a disappointing afternoon.

Neville Crowther



Bog myrtle

RSPB Wood of Cree, near Newton Stewart NX 381708

12th July 2015

After our long drive to Newton Stewart, we were glad to have a short journey the next morning to Wood of Cree along a narrow twisting road - where we had the excitement of an encounter with a bin lorry! It was a sunny morning and the pignut *Conopodium majus* in the grassland round the car park was alive with chimney sweeper moths *Odezia atrata*. We didn't have to go far up the path into the wood before we encountered sheets of bright yellow common cow-wheat *Melampyrum pratense*, more than any of us had ever seen before. Several dor beetles *Geotrupes stercorarius* were spotted on the path which followed a tumbling burn. We heard blackcaps *Sylvia atricapilla*, a whitethroat *S. communis* and wood warblers *Phylloscopus sibilatrix*. As well as robins *Erithacus rubecula* and blackbirds *Turdus merula* we saw a grey wagtail *Motacilla cinerea* at the edge of the water. On the way up, the trees included oak *Quercus* sp., willow *Salix* sp., rowan *Sorbus aucuparia* and hazel *Corylus avellana* and on the last we found glue fungus *Hymenochaete corrugata* which glues branches together. Underfoot was a beautiful mossy carpet composed largely of common tamarisk moss *Thuidium tamariscinum*. As we approached a more open moorland area, we were dismayed to come upon a stand of dead larch trees *Larix* sp. and wondered what had caused this. On the way down, we found a small patch of oak fern *Gymnocarpium dryopteris* and a larger area of woodruff *Galium odoratum*. A final treat was to see a family of wrens *Troglodytes troglodytes* flitting about in the undergrowth.

Jean Murray and Mary Clarkson

The Mull of Galloway, near Lighthouse NX 155304

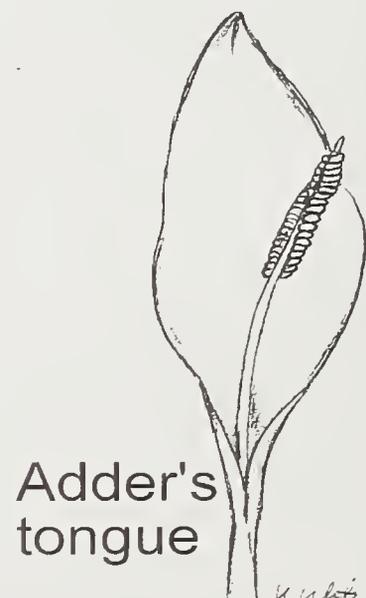
24th June 2015

A visit to the south west is interesting for the botanist as it's a chance to see not only western plants, but also a few from the south which just make it into Scotland - and there are quite a few such on the Mull and nearby Luce Bay.

Familiar plants on the cliffs were sea campion *Silene uniflora*, purple milkvetch *Astragalus danicus* and thyme *Thymus polytrichus*, but here also was English stonecrop *Sedum anglicum*, sheepsbit *Jasione montana* and rock sea-spurrey *Spergularia rupicola*. English stonecrop, which ought to be called western stonecrop, largely replaces biting stonecrop *Sedum acre* along the west coast of Britain. It has small star-like white flowers with contrasting red sepals. When not in flower it looks very like biting stonecrop - but if you nibble the leaves you'll quickly find out which one is 'biting'! Sheepsbit, a member of the bellflower family has pretty blue daisy-like flowers and is found in SW Scotland, Orkney and Shetland, while rock sea-spurrey, which looks much like other sea-spurreys except that it usually grows on rocks, is found on the west coast as far north as Jura.

Spring squill *Scilla verna* was scattered throughout the grassland, some in flower and some already in seed. A dainty blue flower, it is found mainly in the west, but there is an isolated colony near Eyemouth. Also in the grassland were orchids - common spotted *Dactylorhiza fuchsii*, northern marsh *D. purpurella* and their hybrid *D x venusta* - and a nice patch of adder's-tongue *Ophioglossum vulgatum*, apparently not where it was found on our last visit on 10th June 2009, so there's probably quite a bit of it around.

Butterflies and moths were much less in evidence than on our previous visit, perhaps because we were later in the year, and also it was slightly misty. However those of us prepared to venture close enough to the cliff edge had a good view of a fox moth *Microthylacia rubi*. It's a large brown moth, distinguished by two pale lines across the wing, and this was a handsome foxy-coloured male. The large hairy orange caterpillars can often be seen in the autumn.



Adder's
tongue

Birds nesting on sea cliffs at the tip of the Mull included fulmars *Fulmarus glacialis* and kittiwakes *Rissa tridactyla* while gannets *Morus bassanus* were seen fishing out to sea. There were meadow pipits *Anthus pratensis* in the grassland and a whitethroat *Sylvia communis* serenaded us from the back wall of the lighthouse. A little below the wall there's a line of cliffs a little distance from the sea, but evidently within reach of winter storms since there was quite a lot of sea spleenwort *Asplenium marinum*, in cracks and crevices and it needs to be sprayed by sea water.

The lighthouse, no longer in use, has been bought by the community and is now a museum and small shop. Members of staff were very friendly, and it was they who alerted us to the presence of a roe deer *Capreolus capreolus* in profile below on the landward side.

After leaving the Mull we visited a couple of sites along nearby Luce Bay in search of more unusual assemblages of plants. It is always interesting to see plants near the northern edge of their range, like sea kale *Crambe maritima* and yellow horned-poppy *Glaucium flavum* mingling with others, such as oysterplant *Mertensia maritima* near the southern edge of theirs. Sea kale and oysterplant were present at both sites and yellow horned-poppy at the second, Garheugh Port, where the sea kale was doing particularly well. It covered many yards of beach and the population included lots of young plants. It's a spectacularly large cabbage with stiff, well divided flower stems, white flowers and spherical seeds, and one wondered if it was becoming a threat to the other plants on the beach. At Garheugh we also sighted a green-veined white butterfly *Pieris napi* and a cinnabar moth *Tyria jacobaeae*.

Jackie Muscott

Port Castle Beach NX 432366

25th June 2015

Nine members arrived to visit a site previously visited by the Society in 2009, when we found several botanical rarities that had not been previously recorded in the area. We were very keen to see if we could find these rarities once again.

The weather forecast was not good, but we all hoped to stay dry for at least the first part of the day. The route from the car park had been changed so that it went round the back of a farm, and a yellowhammer *Emberiza citrinella* was heard as we passed along the track. At the end, a mature specimen of kapuka *Griselinia littoralis* was flowering. It appeared to have been coppiced many years ago. This species, originating from New Zealand, is often grown in coastal areas as a hedging plant, but rarely produces flowers.



At the start of the main track there was a lovely specimen of *Arum italicum* notable for its striking leaves and flowers with a white spadix.

We then continued down a beautiful woodland track where ramsons *Allium ursinum* was the dominant woodland floor plant, but we also noted moschatel *Adoxa moschatelina* and sanicle *Sanicula europaea*. There was also an abundance of healthy specimens of hart's-tongue fern *Asplenium scolopendrium*.

The woodland was alive with the sound of birdsong that was quite remarkable.

On a fungal note, a fine specimen of two caps of dryad's saddle *Polyporus squamosus* was growing.

We reached the beach, and with a sense of anticipation, started looking for the rarities found on the previous visit. It appears that fresh shingle has been carried high up the beach by winter storms, and this has covered the site where ivy broomrape *Orobanche hederæ* had previously been found. It did not however, prevent some fine stands of sea kale *Crambe maritima* from flowering. Near to St. Ninian's Cave,

we clambered up to the crag to look for the two vetch species, yellow vetch *Vicia lutea* and Bithynian vetch *Vicia bithynia*. We did find several yellow vetch plants in flower, but sadly there was no sign of the Bithynian vetch. That species is an annual, so may not have survived at this site. At the entrance to the cave, we watched young house martins *Delichon urbica* fledging from the nest. They seemed hesitant at first, and clung on to the nest before flying around, and returning to it. We also found some interesting insects. Sarah's eagle eyes found a sloe shieldbug *Dolycoris baccarum*. I found a colourful larva, which was later identified as being a yellow-tail moth *Euproctis similis*, not common in Scotland.

We headed back across the beach, as low cloud, sea mist and spots of rain became more persistent. We continued to look for the ivy broomrape, but did not find any. We headed up the steep path up the eastern headland, where there is a fine colony of dyer's greenweed *Genista tinctoria*, but decided to return to the cars as the weather was deteriorating further.

The group then split up, some visiting Isle of Whithorn and others went to Monreith Bay.
Roger Holme

Below the Strandline, Monreith NX 357409

25th June 2015

Just Roger and myself visited Back Bay at Monreith. After a wander along the edge of the dunes we set off towards the sea. Some storm-dislodged kelps, *Saccharina latissima* and *Laminaria digitata*, were stranded on the sand. The tide was low as we made our way on to the rocks and could see the typical littoral zones marked by the wrack seaweeds, channel *Pelvetia canaliculata*, spiral *Fucus spiralis*, bladder *F. vesiculosus* and knotted *Ascophyllum nodosum*. There was an epiphyte *Polysiphonia lanosa* on the knotted wrack and some areas were draped with *Ulva intestinalis*, a flimsy bright green algae. As we approached the sea it was obvious that the tide was rising and that we should heed this. In the shallow water we came across a dead small-spotted catshark, or as I remember, a lesser-spotted dogfish, *Scyliorhinus canicula*. The previous evening we had been speaking about this fish, euphemistically called rock salmon, a popular food in parts of England. Sadly, this particular specimen had been predated in the process of depositing an egg case, mermaid's purse. The case was still attached to the fish but perforated and drained of its contents.



Stepping cautiously from rock to rock there were more seaweeds, sea lettuce *Ulva lactuca*, coral weed *Corallina officinalis* and many others in the rock pools. The rocks were covered with patterns of acorn barnacles *Semibalanus balanoides* and limpets *Patella vulgata* awaiting the rising tide to feed. In the pools we searched for opening beadlet anemones *Actinia equina* and noted orange and green sponges *Halichondria panicea* just below the waterline as the water rose around these stranded pools. Numerous molluscs included common flat periwinkles *Littorina obtusata*, edible periwinkle *L. littorea*, flat top shell *Gibbula umbilicalis* and dogwhelk *Nucella lapillus* which wandered about above and below the surface of the water leaving trails in the sand.

We eventually realised that no-one was going to join us and left the beach to the rain.

Sarah Adamson

Off to Galloway by way of Lancashire

22nd - 26th June 2015

The best of the weather seemed to be when I was driving, until the final day when it rained from Newton Stewart to just south of Edinburgh. I caught up with the Nats on Tuesday evening for a meal in the Galloway Arms. Earlier in the day coming from Dumfries I stopped first at Caerlaverock Castle and then Threave Castle. The latter has an excellent osprey *Pandion haliaetus* watch where three nestlings had fresh fish delivered by dad and served up nicely by mum.

Next morning, off to the Mull of Galloway so full of colour with thrift *Armeria maritima*, orchids and the stunning blue of sheepsbit *Jasione montana*. Puffins *Fratercula arctica* swam on the sea amongst many guillemots *Uria aalge*. Stonechat *Saxicola torquata* and linnet *Carduelis cannabina* were nesting in thickets of bramble *Rubus fruticosus* agg., bracken *Pteridium aquilinum* and whin *Ulex europaeus*. A kestrel *Falco tinnunculus* was spotted hovering above.

I left the group on the Mull and went birding from the car - sometimes successful. First stop Portpatrick to watch tysties *Cephus grylle* going into their nests in the harbour walls then Loch Ryan for a summer-plumaged great northern diver *Gavia immer* - left behind - though he looked very impressive to me. Finally near New Luce I drew up to watch stonechat and there too were whinchat *Saxicola rubetra* - first for a couple of years.

The following day the flowers once again were eye-catching, bird's-foot-trefoil *Lotus corniculatus*, thyme *Thymus polytrichus* and small pieces of sea centaury *Centarium littorale* as we walked along a shingle beach to St Ninian's Cave. On the cliffs house martins *Delichon urbica* had nested and the three young ones in the nest closest to the mouth of the cave were being persuaded to leave home - very reluctantly in the case of the third who held on briefly by his last claw!

Sadly, the rain came on forcefully as we returned to the cars so a coffee shop was found in the Isle of Whithorn to conclude the day. Next day as the rain was heavy I drove home to Edinburgh and hope next year the weather will be kinder and the Nats will be away again.

Molly Woolgar

SWT Bo'mains Meadow, Bo'ness NS 988795

1st July 2015

Leader: Jackie Muscott

The Meadow near Bo'mains Farm is quite a small area, essentially two large fields. The northern and lowest field was once a small reservoir and is still quite marshy in places, though pretty dry when we were there. The south field is quite a rarity, a flower-rich meadow, with somewhat calcareous soil. There is a small car park at the north end, whence the path runs alongside a treed fence which has nesting boxes on many of the posts. These were put up for tree sparrows *Passer montanus* by a Falkirk group of birders after some tree felling - and happily some of the boxes were occupied.

In the damper areas we were soon finding pink and purple orchids: common spotted *Dactylorhiza fuchsii*, marsh *D. purpurella* and their handsome hybrid *D. x venusta*, with patches of yellow iris *Iris pseudacorus* and a scattering of deep purple marsh thistles *Cirsium palustre*. There were also large patches of water avens *Geum rivale* some of which exhibited an interesting malformation - clusters of petals giving rise to a stalk terminated by normal flowers. Jean Long says she has noticed this malformation at several sites this year.

Both meadows were yellow with buttercups *Ranunculus* spp. and in the upper one there were the delicate white flowers of pignut *Conopodium majus*, the reddish flowers of sorrel *Rumex acetosa* and yellow rattle *Rhinanthus minor* which keeps the grasses in check. In places fox-and-cubs *Pilosella aurantiaca* added additional colour. Sarah said that she had always called fox-and-cubs 'Grim the Collier'* and sent me an interesting article about the name, see below. There were also large patches of smooth lady's-mantle *Alchemilla glabra* some of which were infected by the rust *Trachyspora intrusa* which turns the underside of the leaves bright orange.

However it was the large patches of twayblade *Neottia ovata* and quantities of greater butterfly orchid *Platanthera chlorantha* which were the stars of the day, particularly the latter which is a local rarity, much less common than it was 30 years ago.

The day was warm but dull, but we did manage to see a few insects. David got a satisfactory bag of five bumblebees, and we saw a single small copper butterfly *Lycaena phlaeas* whose larvae feed on sorrel, several chimney sweeper moths *Odezia atrata* whose larvae feed on pignut, and a ringlet *Aphantopus hyperantus*, the first of the grassland butterflies. Other insects included a scorpion fly *Panorpa* sp. and several blue-green lacewings, probably *Chrysoperla carnea*. The fierce-looking scorpion flies are scavengers, while the delicate lacewings are predators, they and their offspring

consuming large numbers of aphids. Just the thing for the garden!

Jackie Muscott

*Note - I am always a little disappointed when *Pilosella aurantiaca* is called fox and cubs. The name Grimm the Collier is intriguing, and, perhaps, the name I picked up whilst living near Croydon. Charcoal was produced in the Croydon area and left the place names of Collier's Wood, near Wimbledon, and Collier's Water Lane in Thornton Heath.

'The stalks and cups of the flours are all set thicke with a blackishe downe or hairinesse as it were the dust of coles; whence the women who keepe it in gardens for novelties sake, have named it Grimm the Collier' (Gerard, 1597).

Other tamer names include orange hawkweed and golden mouse-ear included in the sanitised later versions of Gerard Herball and other early plant books.

Sarah Adamson



Saltoun Wood, West Saltoun NT 465668

8th July 2015

Leaders: Peter Leach and Neville Crowther

Sunshine and showers are common enough in July and there seemed a good chance that it might suit dragonflies and amphibians. Twelve members thought it worth the chance.

One of Peter's main interests has been amphibians, and one of Neville's is dragonflies and the ponds at Saltoun offered an opportunity to see both. If the weather was inclement there was always dipping to look for larvae.

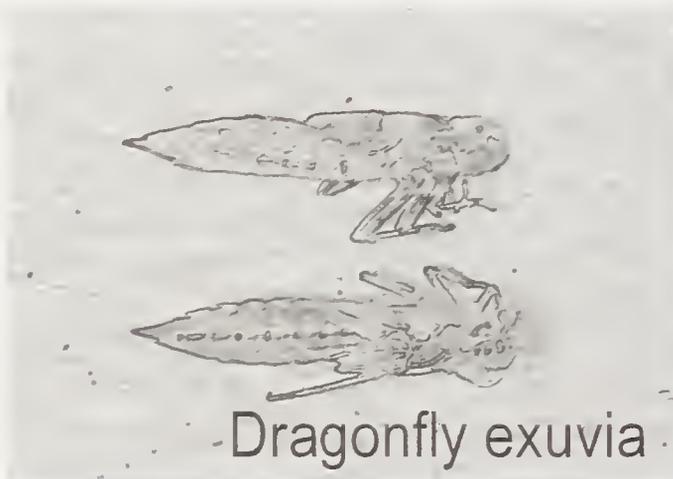
Saltoun Wood has been part of FC, Dumfries and Galloway Pension Fund and now Winton Estate, who run both a commercial forestry and a recreational area, with a comprehensive path network and a number of ponds, built about 5-10 years ago and now beginning to mature biologically.

We visited five of them, with hand nets and specimen trays, and soon accumulated a collection of palmate newts *Lissotriton helveticus*, the males of which displayed their characteristic webbed hind feet and tail filament. There was also a number of palmate newt larvae or efts still retaining their gills to allow water-breathing, before they assumed full adult form and left the pond.

We found no adult common frogs *Rana temporaria* or common toads *Bufo bufo* but their presence was confirmed by tadpoles in abundance.

The pounding rain of the morning ceased on the drive to East Lothian and we soon managed to find a few adult Odonata sheltering in the pool-side vegetation. Large red *Pyrrhosoma nymphula*, common blue *Enallagma cyathigerum* and blue-tailed damselfly *Ischnura elegans* were all present as adults in small numbers. We caught many tiny nymphs which were all *Coenagriidae* but too small to be sure of their identity. We were possibly right to assume that all the bigger ones had already hatched. Our most striking successes were the large numbers of large late instar nymphs of common hawker dragonflies *Aeshna juncea* found in various modes. Some were just cast skins from earlier instars floating in the water: some were live nymphs just ready to emerge and many were exuvia of

ones that had already hatched. They were found clutching the reeds or rushes where they had split open to release adults. Sadly, no adults were found. If only there had been a bit of sunshine and warmth! The flowering heads of umbellifers and thistles produced their usual crop of hoverflies and bumblebees including cuckoos which pleased David. More unusual were two species of longhorn beetle. *Leptura quadrifasciata* was large and as the name suggested with maroon elytra bearing four cream bars. A smaller relative from a different genus



was *Judiola sexmaculata*, pink with black spots, nectaring on hogweed *Heracleum sphondylium*. It was a productive and enjoyable afternoon and good to see members of mature years return to their childhood when they have a dip net in hand.

Peter Leach and Neville Crowther

SWT Linn Dean, near Soutra NT 466594

11th July 2015

Leaders: Katherine White and Laura Edwards

A group of 18 gathered for a sunny, but blustery day exploring the steep-sided glen at Linn Dean reserve in East Lothian. With no designated paths on the site, the group tackled the rough terrain and steep slopes to complete a circular route finding a wealth of flora and fauna. The deep purple flowering spikes of the northern marsh orchids *Dactylorhiza purpurella* as well as the flowering hairy stonecrop *Sedum villosum* and marsh speedwell *Veronica scutellata* provided a few highlights in the wet patches at the bottom of the slopes. The base rich flushes also provided botanical interest with quaking grass *Briza media*, tawny sedge *Carex hostiana*, star sedge *C. echinata*, flea sedge *C. pulicaris* and burnet saxifrage *Pimpinella saxifraga* beginning to show signs of flowering.

Everyone made their way back up the steep expanse of calcareous grassland which was carpeted with the small delicate white flowers of fairy flax *Linum catharticum*. Other species in flower included common rock-rose *Helianthemum nummularium*, wild thyme *Thymus polytrichus*, spring sedge *C. caryophylla*, crested hair grass *Koeleria macrantha* and heath grass *Danthonia decumbens*. This flower rich grassland was thriving with insect life including chimney sweeper moths *Odezia atrata*, the butterflies common blue *Polyommatus icarus*, ringlet *Aphantopus hyperantus*, meadow brown *Maniola jurtina*, dark green fritillary *Agynnis aglaja*, northern brown argus *Aricia artaxerxes* and six bumblebee species with a sighting of the upland bumblebee *Bombus monticola*. Lunch on the slopes, although breezy, provided a lovely view of the reserve with swifts *Apus apus*, swallows *Hirundo rustica* and a soaring buzzard *Buteo buteo* calling nearby.

After lunch, the group walked single file along a challenging waterside route to see the few plants of mountain melick *Melica nutans* scattered amongst the overhanging rock. After crossing the water at the north end of the reserve we found an early-purple orchid *Orchis mascula* spike still in flower. A green carpet moth *Colostygia pectinataria* and sexton beetle *Nicrophorus vespilloides* were a few of the insect discoveries on the walk back to the cars. A lovely day ended with tea and cake.

Katherine White



Northern brown argus on common rockrose

Oatridge College, Ecclesmachan NT 057737

15th July 2015

Leader: Fraser Donachie

A small group of us arrived at the Oatridge campus on a pleasant Wednesday afternoon on the 15th July. We set off towards the start of the drive and took a left onto the path that follows a burn through a small woodland called the Covert and walking along the path we came across a stinkhorn fungus *Phallus impudicus*. Halfway through the woodland there was also standing deadwood with evidence that woodpeckers can be found in the area. We then took a right at the end of the woodland up towards a meadow which surprised us as it contained a variety of plants and insects including common spotted orchid *Dactylorhiza fuchsii*, pignut *Conopodium majus* that had some chimney sweeper moths *Odezia atrata* resting on them and tortoiseshell butterflies *Aglais urticae*.

There were also a number of birds including whitethroat *Sylvia communis*, yellowhammer *Emberiza citrinella*, chaffinch *Fringilla coelebs* and other warblers. After having a look in the meadow we wandered down to the bridge that crosses the burn. Katherine and Vladimir both got into the river to look at some blue water speedwell *Veronica anagallis-aquatica* and spotted some bullheads or miller's thumbs *Cottus gobio*. After this we crossed the bridge and walked down a path that ended at some fields in order to get a better look at some of the birds and any other plants that we might have missed. We retraced our steps through the Covert towards the car park.

Fraser Donachie

Bawsinch and Duddingston SWT Reserve, Edinburgh NT 284725

18th July 2015

Ptolemy McKinnon, Bill and Margaret Gilmour and myself made an impromptu visit to Bawsinch after the programmed excursion to Heights was cancelled for weather reasons.

From the hide, we found a pair of great crested grebes *Podiceps cristatus* with one young. The hide records book noted originally three chicks and one egg on the nest. I had been told the otters had not been seen on the loch for some time with the consequent return of the great crested grebes. Nice to see two juvenile herons *Ardea cinerea* sitting together on the far side of the loch, and one adult sitting on a branch in the wee bay to the left of the hide. There were two adult moorhen *Gallinula chloropus* with four chicks, also a pair of dabchick, or little grebes, *Tachybaptus ruficollis* with three chicks.



Great crested grebe

Through the reserve I noticed a big difference in the almost total clearance of the red-stemmed dogwood. Only a few plants were growing which none of us recognised at the time, I for one only ever seeing it in winter or early spring, not in leaf. This used to be a huge menace in the past. Here we found black snipefly *Chrysopilus cristatus* and pupa of 7-spot ladybird *Coccinella 7-punctata*. Returning via Goose Green we found two newly hatched 7-spots on creeping thistle *Cirsium arvense* with a host of dinner in the form of blackbean aphids *Aphis fabae* agg. Here I was particularly aware of a song thrush *Turdus philomelos* singing from atop a tree, it being the only bird song heard all day. Nor were many other birds seen round the reserve. Butterflies made up for their absence, with green-veined white *Pieris napi*, meadow brown *Maniola jurtina*, red admiral *Vanessa atalanta* and ringlet *Aphantopus hyperantus*.

Joanie McNaughton

A Day on the Edinburgh Trams, Haymarket NT 239731

18th July 2015

The excursion to Drumtassie and Heights was cancelled, however, by Friday afternoon it looked as if a local but blustery outing would be possible. At short notice five members gathered at Haymarket Tram Stop and set off to Ingliston Park and Ride spotting a couple of roe deer *Capreolus capreolus* along the way. We rode back to Edinburgh Park Central passing swathes of giant hogweed *Heracleum mantegazzianum* which had been treated with herbicides but still had the audacity to flower. This year has seen much publicity about the risks of coming in contact with giant hogweed and the severity of burns suffered by numerous young people.

At Edinburgh Park Central we walked a circuit of the man-made loch cunningly planted with drifts of native and cultivated plants. Around the loch were busts of poets and pieces of rock which John Palfery suggested could become another geology excursion. We were entertained by a mother mallard *Anas platyrhynchos* and her four very young ducklings demonstrating their skills at running on waterlily leaves and water. Lurking in the water we noticed some roach *Rutilus rutilus*.

We went on to Edinburgh Park which was a complete contrast, with a boggy wasteland and weedy pathside. There were teasels *Dipsacus fullonum*, both old and about to flower, and a large patch of hairy sedge *Carex hirta*.

A short ride took us on to Saughton where we ate our lunch before walking to Balgreen. Alongside the track grow many clovers, notably hare's-foot *Trifolium arvense*. Seven species of bumblebees *Bombus* spp., risked the blustery conditions. A single sand martin *Riparia riparia* was flying over Carrick Knowe golfcourse.

Leaving the trackside we walked to the Winter Gardens to meet up with Ptolemy, who had spent the morning with Joanie, and there we explored the varied styles of planting. Our route took us along the Water of Leith to Slateford and a cup of tea, where we met another Nat, Liz Eaton. She encouraged us to visit Redhall Garden Open Day. The garden is part of a successful community and health enterprise. There was an abundance of edible produce and flowering perennials with bumblebees in profusion. We also saw a leaf-cutter bee *Megachile* sp. along with a couple of small tortoiseshell butterflies *Aglais urticae* and a forest bug *Pentatoma rufipes*.

This seedling idea for an excursion became an adventure in varied suburban habitats.

Sarah Adamson

Harlaw Circuit, Pentlands NT 182656

22nd July 2015

Leader: David Adamson

The name of this outing is perhaps misleading; we did walk around Harlaw Reservoir, but at such a distance that we saw it only in the early stages and at the end of the walk. The main theme was bumblebees, and we were fortunate to see a number of species in the Harlaw Wildlife Garden where we met with John Stirling of the Friends of the Pentlands, and with Doug Clark who joined us on our walk.

Having covered the ground to Threipmuir at a fairly brisk pace, we slowed down once we reached the east end of the reservoir, at last sheltered from the cool westerly breeze. As the water level was low, we were able to walk along the exposed gravel all the way to Black Springs. Swifts *Apus apus* swooped and dived through clouds of mayflies *Ephemeroptera* and other insects, and many narrow-bordered five-spot burnet moths *Zygaena lonicerae* were settled on the plants beside the reservoir. Neville managed to catch a blaeberry bumblebee *Bombus monticola*, the only one that we found. Most of the bees seen on this part of the outing appeared to be white-tailed workers *B. lucorum*, but we did find males of that species as well as of the buff-tailed bumblebee *B. terrestris*.

At Black Springs we were pleasantly surprised to be joined by Natalie with her children Daniel, 2½, and Tabitha, 16 months. They had caught up with us after being delayed by a nappy change for which Tabitha must take responsibility. Jean spent most of the rest of the walk entertaining and being entertained by Daniel, while Neville and Doug helped Natalie to lug Tabitha's pushchair up the slope from Black Springs and over the dyke at Harlaw. We returned to the visitor centre in sunshine that had seemed most unlikely two hours previously.

For the record we found ten bumblebee species, including two cuckoo species, the six common ones found in gardens, the recently arrived tree bumblebee *B. hypnorum*, and the aforementioned blaeberry bumblebee. At least seven of these were present in the Harlaw Wildlife Garden, for which those who look after the garden must take credit. In addition Neville pointed out three family parties of little grebe *Tachybaptus ruficollis* and the following plants:- northern yellow cress *Rorippa islandica* and two pondweeds



Potamogeton graminea and *P. polygonifolius*.

David Adamson

Bush Estate and Leadburn Community Woodland, NT 247637 and NT 236546

25th July 2015

Leaders: Neville Crowther and Tom Delaney

The aim was to resurrect last year's planned dragonfly excursion which ended so dismally in diluvian conditions. This time as I listened to the weather forecast the night before I was tempted to use other than biblical language. We were told of increasingly showery weather becoming constant heavy rain by 2pm.

Undaunted Tom and I arrived at the Bush House car park 30 minutes early and squelched through the wet grass to the pond. We waded in with nets and managed to collect an array of aquatic species which we thought might compensate for the lack of flying insects. A quick dash back to the carpark revealed almost 20 people all smiling in expectation of wonders to behold. The rain had stopped for a while although as yet there was no sunshine. Peter Leach had thoughtfully brought a couple of additional nets and trays, so we were able to turn everyone loose to identify the wonderful selection of aquatic plants and animals. Around the periphery were tussocks of soft rush *Juncus effusus* and tumbling masses of greater bird's-foot trefoil *Lotus pedunculatus* and surprisingly a large and unmistakable skunk cabbage *Lysichiton americanus*, which I thought had been listed under Schedule 9 of the Wildlife and Countryside Act as a plant to be extirpated. Very tall reedmace *Typha latifolium* plants dominated the emergent vegetation but were outshone by the yellow flowered greater spearwort *Ranunculus lingua* possibly introduced from elsewhere in Britain. Common pondweed *Potamogeton natans* and white water lily *Nymphaea alba* provided floating leaves and *Eloдея* possibly *nuttallii*, the commonest submerged plant.

Brown china-mark moths *Elophila nymphaeata* fluttered through the aquatic vegetation, and ringlets *Aphantopus hyperantus* and meadow brown butterflies *Maniola jurtina* were equally common in the grassland. Netting revealed several vertebrates. Three-spined sticklebacks *Gasterosteus aculeatus aculeatus* of all sizes were common. The biggest were males with red chests and blue irises. 'Newt poles' with external gills and long tails were scooped up with tadpoles beginning to grow legs. The most splendid capture was a great diving beetle *Dytiscus marginalis* resembling a tiny speedboat, black-green back with a yellow margin and orange underparts. Lots of backswimmers *Notonecta glauca* with their distinctive 'rowing boat' paddling were another predator species, of many. Two dragonfly nymphs were added to our list, namely common hawkers *Aeshna juncea* with prominent longitudinal stripes, reaching about 75mm in length and common darters *Sympetrum striolatum*, much squatter and smaller, about 40mm. It was time to go! With only 2¼ hours to the dreaded downpour at 2pm we drove to Leadburn Community Woodland just inside Borders region.

Two former railway tracks, diverging southwards are the easiest way to walk around the site. This track bed was probably made from basic slag from steel works and is now covered with a herb-rich vegetation attractive to butterflies. We saw small pearl-bordered fritillaries *Boloria selene*, several other *Nymphalids* and moths such as narrow-bordered five and six-spot burnets *Zygaena lonicerae* and *Z. filipendulae*. Flowering plants included common spotted orchids *Dactylorhiza fuchsii*, self heal *Prunella vulgaris*, eyebrights *Euphrasia* spp., foxgloves *Digitalis purpurea*, meadow vetchling *Lathyrus pratensis*, both bird's-foot trefoils *Lotus corniculatus* and *L. pedunculatus* and clovers *Trifolium* spp.

The rest of the site is derived from the original peat bog, which was ploughed and planted with Sitka spruce *Picea sitchensis* in the post war decades. Bought from the FC in 2007 by a community charity, four ponds were excavated, native trees were planted leaving clearings and natural progressions were left to produce the excellent site now present.

We had lunch in one of the ex-Ministry of Defence buildings previously used as ammunition storage buildings. The most recent inhabitants seem to have been barn owls *Tyto alba*. Pellets littered the floor and Kevin remembered well a family party of owls a year ago.

We decided to stumble around the four large ponds looking for dragonflies and damselflies which had been so prominent last year and only three weeks ago. The first emerald damselflies *Lestes sponsa* were just emerging and several distinctive 'hammer-headed' nymphs were netted. A brief

blink of sunshine brought out over a hundred common blue *Enallagma cyathigerum* and a few large red *Pyrrhosoma nymphula* damselflies. The black clouds began to pile up to the south west and folk began to disperse, particularly those without wellies. By 2.30pm the remaining stalwarts also accepted the futility of any further exploration. Encouragingly, most members thought that in different circumstances they would love to return. Next Year!

Neville Crowther

SWT Tailend Moss, Bathgate NT 005678

29th July 2015

Leader: Tom Delaney

This was a new site for me and much to my pleasure far exceeded my expectations no doubt helped by the fact that the weather was so much better than forecast, with plenty of sunshine and only a few spots of rain as we were leaving.

It was an outing, led by Tom, for a very select few, namely myself and Nev then at 4.15pm we saw Jackie Muscott in the distance with her head down industriously recording the plants.

Many Odonata were seen. Damselflies included large red *Pyrrhosoma nymphula*, emerald *Lestes sponsa*, common blue *Enallagma cyathigerum*, azure blue *Coenagrion puella* and blue-tailed *Ischnura elegans*. The emerald was the most numerous. Dragonflies were not much in evidence but included the four-spotted chaser *Libellula quadrimaculata* and a single, most striking female black darter *Sympetrum danae* glinting golden in the sunshine that Tom found resting in the heather giving great photo opportunities.

There were few butterflies but we did see some meadow browns *Maniola jurtina*, ringlets *Aphantopus hyperantus*, a small tortoiseshell *Aglais urticae*, and a green-veined white *Pieris napi*, with the highlight being a painted lady *Vanessa cardui*. This was the first time that I can remember having been out where *Odonata* greatly outnumbered butterflies.

Many moths flitted in amongst the grasses including a plume moth species *Pterophorus* sp that we were unable to identify. There were a few latticed heaths *Chiasmia clathrata* and brown china-marks *Elophila nymphaeata*. The most obvious moths were the six-spot *Zygaena filipendulae* and five-spot burnets, most likely the narrow-bordered five-spot burnet *Z. lonicerae*, it being the more widespread of the two five-spot species.

I was particularly pleased to see a number of fungi especially those associated with bogs and marshes. Tom found the bog bell *Galerina paludosa* and sphagnum greying *Tephrocybe palustris*. Also seen were bay polypore *Polyporus durus*, blackfoot polypore *P. leptcephalus*, yellow swamp brittlegill *Russula claroflava*, grisette *Amanita vaginata* and the blusher *A. rubescens*.

Whilst Tom and I were searching for the *Odonata*, Nev was in his element pond-dipping and found many larvae of a number of insects.

Only a few birds were seen with a sedge warbler *Acrocephalus schoenobaenus* noticed by Nev, four oystercatchers *Haematopus ostralegus* noisily flying overhead, a large flock of lapwings *Vanellus vanellus* and a sparrowhawk *Accipiter nisus* sighted by Tom.

There was a good number of plants associated with this habitat including a whole 'sea' of wild angelica *Angelica sylvestris*, bog asphodel *Narthecium ossifragum*, fen bedstraw *Galium uliginosum*, a great number of marsh cinquefoil *Comarum palustre* and many dainty round-leaved sundews *Drosera rotundifolia* in flower. The main plant of the ponds appeared to be broad-leaved pondweed *Potamogeton natans* with some in flower. Just as we were returning to the car Jackie pointed out to us the northern dock *Rumex longifolius*, which I must admit to having just walked past. Jackie had also found cranberry *Vaccinium oxycoccos*. A single flower of greater knapweed *Centaurea scabiosa* was also seen.

Other highlights were *Nostoc commune* at the path's edge. This organism is eaten by the indigenous people of the mountains of Peru and is said to be highly nutritious. Then there was robin's pincushion, also known as the bedeguar gall caused by a wasp *Diplolepis rosae* on dog rose *Rosa canina*. Finally we noticed that the willow *Salix* sp. leaves were turning brown due to the feeding of willow leaf larvae *Plagioderia versicolora*. A couple of the trees were very heavily infested. Though

it was too early for the adult beetles which are a metallic-blue, we did see the black larvae which were about four millimetres long.

My thanks go to Tom, Nev and Jackie for a brilliant afternoon.

Sarah-Louise Davies

The Glen, near Traquair NT 297331

1st August 2015

Leader: Lynn Youngs

An unpromising weather forecast did not deter 17 members from meeting at Glen House to explore 'The Glen' which involved a 5 mile circular walk via Loch Eddy and Glenshiel Banks.

Hornbeam trees *Carpinus betulus* were growing on either side of the track as we walked past Glen House towards Loch Eddy. Douglas firs *Pseudotsuga menziesii* and red elders *Sambucus racemosa* were also growing along this part of the route. Plants spotted included three-veined sandwort *Moehringia trinervia*, lesser stitchwort *Stellaria graminea*, slender St. John's wort *Hypericum pulchrum*, field forget-me-not *Myosotis arvensis*, ragged robin *Lychnis flos-cuculi*, heath speedwell *Veronica officinalis* and changing forget-me-not *Myosotis discolor*. A highlight of the day was stream water crowfoot *Ranunculus penicillatus pseudofluitans* growing prolifically along the entire length of the small stream flowing through The Glen.

The weather stayed dry and warm enabling us to enjoy a lovely lunch stop at Loch Eddy. A common blue damselfly *Enallagma cyathigerum* was hovering over the loch as we arrived and two buzzards *Buteo buteo* soared overhead with their distinctive mewing call. A number of insects spotted before lunch included white-tailed bumblebee *Bombus lucorum*, blaeberry bumblebee *B. monticola*, cuckoo bumblebee *Bombus* sp., yellow shell moth *Camptogramma bilineata*, ichneumon wasp *Megarhyssa* sp., common wave moth *Cabera exanthemata* and white plume moth *Pterophorous pentadactyla*. Four butterflies showed well – green-veined white *Pieris napi*, ringlet *Aphantopus hyperantus*, small tortoiseshell *Aglais urticae* and meadow brown *Maniola jurtina*. After lunch we walked past a lovely clump of lemon-scented fern *Oreopteris limbosperma* before heading across acid montane grassland towards Glenshiel Banks. This change in habitat produced acid loving species including star sedge *Carex echinata*, common sedge *C. nigra*, spring sedge *C. caryophylla*, crowberry *Empetrum nigrum*, heath rush *Juncus squarrosus* and hare's-tail cotton-grass *Eriophorum vaginatum*. Roger found an emperor moth caterpillar *Saturnia pavonia* and a common lizard *Zootoca vivipara* was seen briefly before it disappeared into the rocks of an old wall. Meadow pipits *Anthus pratensis* were flying across the moorland in good numbers.

The route continued along the track to the north of The Glen and from here we enjoyed superb views back to Loch Eddy surrounded by heather clad Border Hills resplendent in their purple hue. Insects spotted on this stretch of the walk included larch ladybird *Aphidecta oblitterata*, 10-spot ladybird *Adalia 10-punctata*, common carder bee *Bombus pascuorum* and hoverfly *Syrphidae* agg. Notable plants on this section of the route included water forget-me-not *Myosotis scorpioides*, upright hedge parsley *Torilis japonica*, thyme-leaved speedwell *Veronica serpyllifolia*, heath groundsel *Senecio sylvaticus*, zigzag clover *Trifolium medium*, marsh bedstraw *Galium palustre* and hedge bedstraw *G. alba*. Fungi were not plentiful but a few species spotted throughout the day included *Suillus grevillei*, *Amanita rubescens*, *Russula aeruginea*, *Phallus impudicus*, *Collybia confluens* and *C. dryophila*.

It had been a very enjoyable outing which turned out to be perfectly timed as shortly after getting back to the cars the heavens opened and it started to pour with rain!

Lynn Youngs

Ettrick Marshes, near Ettrick NT 297164

8th August 2015

Leader: Neville Crowther

The Borders Forest Trust has 're-wilded' this stretch of the upper Ettrick Water, in part by removing exotic conifers and by restoring the vegetation of its natural floodplain. In addition to establishing a

good footpath and a series of boardwalks, the Trust has built at least two bird-hides and provided some seating beside the path. The boardwalks allow access across some of the wetter parts of the floodplain and prevent damage to the vegetation. They also help channel visitors in a way that minimises disturbance to wildlife.

As for the types of resident wildlife to be found here, the following text is taken from the online local guide to the Scottish Borders: 'This wetland area and meadow is rich in wildlife, ideal habitat for reed bunting, grasshopper warbler, water rail and water vole. Otter, dipper, grey wagtail and osprey are found along the river. Red squirrel, roe deer, crossbill and siskin inhabit the neighbouring conifer woodland. Other notable species included: goosander, tree creeper, sedge warbler, stoat, reed canary grass, meadowsweet, marsh valerian, scotch argus butterfly and common frog.'

We saw a very small frog *Rana temporaria*, and there was plenty of reed canary grass *Phalaris arundinacea* and meadowsweet *Filipendula ulmaria*, but of the other highlights listed above we saw and heard nothing. It was as if the resident wildlife had gone on holiday. We heard nuthatches *Sitta europaea*, and saw cones stripped by red squirrels *Sciurus vulgaris*, but birds were notable by their scarcity, and mammals were not seen at all. Apart from some annoying flies, most insects also seemed to have taken the day off. Why would anyone bother to drive fifty miles from Edinburgh to visit such a place?

Well, here are a few reasons: the excitement of exploring a new place, the unfamiliar landscape, the unusual habitats, the company and exercise of sorts and the wildlife. Yes, there was wildlife after all. Taking advantage of the warm, dry, planks of the boardwalk were some common lizards *Zootoca vivipara*. Two kindly stayed put to allow all of us to admire them. A small tortoiseshell butterfly *Aglais urticae* also settled on the boardwalk, but flew away at our approach. As well as the aforementioned plants the walkway was bordered at different places by bogbean *Menyanthes trifoliata*, water horsetail *Equisetum fluviatile*, common valerian *Valeriana officinalis*, marsh ragwort *Senecio aquaticus* and a variety of willows *Salix* sp..

Our lunch stop was by a path above the mire. Here, in a very small area, was an assemblage of plants atypical of the surrounding acid vegetation. Thyme *Thymus polytrichus* was in full flower. Beside it were pale sedge *Carex pallescens*, flea sedge *C. pulicaris* and meadow oat *Helictotrichon pratense*. In addition there were some patches of the uncommon bottlebrush moss *Breutelia chrysocoma*. Each patch covered a nest of the yellow meadow ant *Lasius flavus*, suggesting some connection between the two species. Oak fern *Gymnocarpium dryopteris* was thriving in the scree below the path.

Another form of wildlife not mentioned on the website, but evident under conifers, were the mycorrhizal fungi. We found species of *Amanita*, *Russula*, *Lactarius*, *Boletus*, *Clitopilus*, *Suillus* and what appeared to be *Chroogomphus rutilus*.

Finally the bryophytes were abundant in the wet woodland and were draped over many of the trees. As well as the *Breutelia*, we found *Plagiothecium denticulatum* growing on the dry stane dyke, *Frullania* sp. on the ash trees *Fraxinus excelsior* and a mixture of *Sphagnum* and *Polytrichum* mosses in the mire. There was even a carpet of *Plagiochila asplenoides* under conifers.

As ever, many thanks to Neville for leading us on yet another interesting outing.

David Adamson

Killiecrankie NN 917625

15th August 2015

Leader: Wilma Harper

The advantage of a bus outing is that it can be one way. We were dropped at the NTS carpark at Killiecrankie and would walk to Pitlochry more or less following alongside the River Garry.

Although it was raining during the briefing, as we headed down to the Soldier's Leap it was easing off and would be dry for the rest of the walk. Sue Crowther preferred a more leisurely day and spent some time in the visitor centre and was rewarded with great views of a red squirrel *Sciurus vulgaris* at the feeders. We had seen one on the route when we did the recce but with the bigger group they were more elusive.

The Battle of Killiecrankie took place in 1689 and is commemorated in song and at the 'Soldier's Leap' where it is reputed one Donald MacBean fled by jumping over the river Garry at a narrow point. Today the adventure seekers leap into the water for the adrenalin rush!

The gorge has been formed as the river cut through the mica-schist rock and hard bands of white quartzite. The narrow pass has constrained transport routes and as we headed down to the path we had good views of the bridge structure supporting the 'new' A9 and the old viaducts for the railway. The area is designated as an SSSI for the mixed woodland and associated plant and insect life. We were pleased to find wood vetch *Vicia sylvatica*, bird's-nest orchid *Neottia nidus-avis* and lesser wintergreen *Pyrola minor*. We stood for some time watching a dipper *Cinclus cinclus* swimming about in the gravel beds and some of the group were fortunate to spot an osprey *Pandion haliaetus*. Once under the Garry Bridge, and ignoring the screams of the bungee jumpers, we followed the path which skirted an open field as the river took a wide meander. This pleasant peaceful scene was shattered by the loud crack and then a crash as a huge limb fell off an open grown oak tree in the middle of the field. The literature refers to 'sudden branch drop' and it is thought that it could be a response to changes in water status of the tree when heavy rain follows a drought and is not visibly related to any disease. However it is a rare event with little hard data to support the various theories. That excitement behind us, the simple Nats pleasures of watching wasps excavating a nest and finding bitter vetchling *Lathyrus linifolius*, prickly sedge *Carex muricata pairae*, wild basil *Cinopodium vulgare* and shady horsetail *Equisetum pratense* sustained us as we headed for the Faskally Fisheries Research Laboratory to lean against its wall and have our lunch.

Faskally House, now a retreat, had been an outdoor centre and before that was one of the training schools for foresters in the 1950s. The nearby Faskally Woods were their outdoor classroom and are still managed on a 'continuous cover' basis with a range of species and age structures. This can be an intensive and expensive silvicultural system and is best suited to sheltered sites on free draining soils. Faskally Woods with the pretty Loch Dunmore at its heart is an ideal site for this approach. The final phase of the walk took us along by the road to end at the hydro dam. The viewing area on the salmon ladder which I remember from trips as a child has been replaced by a little video screen and not much seemed to be happening. Nevertheless we were now in the outskirts of Pitlochry where the bus was waiting but with enough time for a quick wander and some refreshment. Sarah Adamson's comment on Facebook summed up the excursion nicely: 'All the elements of a successful Nats outing - Walk, natural history, types of weather, ice cream, plus the excitement of hearing and seeing the limb of an oak tree falling to the ground.'

Wilma Harper

Cammo Estate, Barnton NT 178749

19th August 2015

Leader: Tom Delaney

This late-season, Wednesday evening outing to Cammo Estate, designated M for Mammals, was arranged in the hope of seeing badger and possibly brown long-eared bat. We saw neither, but had a lovely evening in fine surroundings.

Cammo Estate is owned by the NTS and is feued to City of Edinburgh Council, who manage it as a country park. Situated on the western outskirts of the city between Barnton and Cramond Brig, it comprises 41 hectares of woodland, parkland and grassland. The estate was the grounds and designed landscape of Cammo House, once one of the finest houses in Edinburgh but now a scant ruin.

On the day, an extremely pessimistic weather forecast proved to be just as erroneous as the previous Saturday's optimistic one. Rain was forecast for the evening, so we went early and during a 2-hour pre-meeting wander around the site managed to get very wet. Fortunately, by 7pm the rain cleared, and Nats began to appear at the visitor centre, a former gatehouse to the estate. A welcome and knowledgeable addition to our party was Nick Bengel, a leading light in the Friends of Cammo, whose aims are to preserve and enhance the amenity of the estate and to advance public appreciation of its historical, architectural, scenic and ecological qualities.

Nick suggested we start by visiting the flower meadows that the Friends had scraped and seeded in the last few years. There were about five of these, with an abundance of colour provided by musk mallow *Malva moschata*, field scabious *Knautia arvensis*, knapweed *Centaura nigra*, marjoram *Origanum vulgare* and red clover *Trifolium pratense* all at the red end of the spectrum. Yellow was represented by kidney vetch *Anthyllis vulneraria*, hay rattle *Rhinanthus minor*, bird's-foot trefoil *Lotus corniculatus*, banks of tansy *Tanacetum vulgare*, Canadian goldenrod *Solidago canadensis*, perforate St John's wort *Hypericum perforatum* and evening primrose *Oenothera* sp. Into the blue/violet we had tufted and bush vetches *Vicia cracca* and *sepium*, viper's bugloss *Echium vulgare*, towering teasel *Dipsacus fullonum*, and a selection of white flowers including ox-eye daisy *Leucanthemum vulgare*, meadowsweet *Filipendula ulmaria* and, unusually, wild carrot *Daucus carota* from coastal grasslands. I'm sure there were more, but, sadly, memory is fickle.

We were content to let Nick lead the way, with his easy-going anecdotal and informative narrative, and were directed to the pinetum, with its pines and yews *Taxus baccata*, along with exotics such as deodar *Cedrus deodara*, monkey puzzle *Araucaria araucana*, Wellingtonia *Sequoiadendron giganteum*, western red cedar *Thuja plicata*, cedar of Lebanon *Cedrus libani* and newly planted swamp cypress *Taxodia distichum*. Later, we were to find many Turkey oaks *Quercus cerris* with hairy cups to the acorns.

Apart from the meadows, the estate is mainly parkland and broadleaved woodland. The trees are mostly native; many veterans planted by Sir John Clerk of Penicuik during his ownership of the estate, 1710-26, remain and are of impressive dimensions.

From what still exists of the designed landscape, we could see that it had many features similar to those at Mavisbank and Penicuik estates. A canal, sadly now stagnant, a huge overgrown walled-garden, avenues of trees and feature buildings, such as the magnificent landmark water tower situated to provide a focus for longer views to the surrounding countryside.

We didn't see any deer, but Nick assured us that roe *Capreolus capreolus* were numerous and posed significant browsing pressure, creating a problem for the Friends' tree-planting ambitions.

Near the walled garden were two large badger *Meles meles* setts among the roots of rhododendrons *Rhododendron ponticum*. As dusk fell, we found many old holes there but, unfortunately, no sign of recent occupation. Nick said that the animals had moved out of the estate and to a less accessible site.

We scanned the walls of the stable block, with its octagonal tower, a much finer, more imposing ruin than the sad stump of the main house, where brown long-eared bats *Plecotus auritus* are reputed to roost, but they showed no sign of emerging. However, as twilight deepened, and as we headed back to the starting point, several pipistrelle *Pipistrellus pipistrellus* bats came out, flitting, apparently in couples, high among the trees.

As we walked, Nick regaled us with his many ideas for the development of the site's biodiversity and for saving it from the consequences of the extensive housing schemes in the planning pipeline for the surrounding area.

Neville Crowther and Tom Delaney

Palacerigg, near Cumbernauld NS 787732

22nd August 2015

Leader: Jean Long

This excursion started at the Palacerigg Country Park car park where the group briefly stopped at the visitor centre. In this building, there was information on the rare breeds of livestock kept in the grounds and the man who set it up. His name was David Stephens, a naturalist who used to write for The Scotsman. From the car park, the ten members present headed to the tree top walk, from which on clear days, you can see as far as Goat Fell on Arran. However, it was cloudy, so visibility was diminished only seeing as far as the Glasgow area, but it seemed worth going up if not for the views of the landscape, there was the possibility of close views of many woodland birds. For example, goldcrest *Regulus regulus* were seen within metres when usually it is difficult to see the UK's smallest bird in the tree tops. Before getting back to terra firma we paid attention to the diversity of

tree species.

On reaching the badger trail, which was set up for seeing badgers *Meles meles* living in the area, the path was still under part development as in future there are plans for a pathway linking up to moorland which should make it a great walk taking in a mix of habitats. On the day we could not access the area, but got good views of the heather. The group came across broad-leaved helleborine *Epipactis helleborine*, a certain botanical highlight of the day. *Viburnum opulus* was also seen and a fungal highlight was a dusky puffball *Lycoperdon nigrescens*. Jean pointed out heath rush *Juncus squarrosus* which had micro-moth larvae *Coleophora alticolella* which wrap themselves in silken cases and feed on rush seeds.

A break at Fannyside Loch gave a view of lesser black-backed gulls *Larus fuscus* with little else bird wise. However later on in the year, thousands of geese will arrive as nearby is a site for the largest wintering numbers of taiga bean geese *Anser fabalis fabalis*. Having bred further north in the boreal forest, or taiga, of Russia and Scandinavia, the birds migrate south to the UK to feed on the plants on offer on moorland. A common hawker dragonfly *Aeshna juncea* was seen on leaving the loch.

Ready to stop for lunch, David and I noticed a bird fly off into trees, but originally dismissed it as a chaffinch. However on having a closer look when it came into view, it was a spotted flycatcher *Muscicapa striata*. This species can be recognised by its behaviour of quickly flying away from a tree and then usually back to the same branch, catching insects while in the air and the group was lucky enough to witness a few individuals doing this repeatedly for roughly ten minutes. After lunch, taking a stony track, a hieroglyphic ladybird *Coccinella hieroglyphica* was found adding to the 10-spot *Adalia 10-punctata* and larch ladybirds *Aphidecta obliterated* found earlier on the route. Near Glencryan Burn, Jean showed us a fireclay mine, with this site being part of an area which had many clay mines, running from Linlithgow in the east to Glenboig in the west. There were many fireclay businesses including in nearby Cumbernauld. Not long past this, there was a spot where a raptor was seen. Around here, a hoverfly caught the eye as well as a grasshopper. The most exciting finds here though were not entomological, but botanical as bog asphodel *Narthecium ossifragum*, marsh ragwort *Senecio aquaticus* and bristle club-rush *Isolepis setacea* were found in the area. Near the end of the excursion, there was a patch with many common carder bumblebees *Bombus pascuorum* visiting flowers and nearby was another area of activity. Many birds were gathering in the vegetation including blue tits *Cyanistes caeruleus*, a willow warbler *Phylloscopus trochilus*, goldcrest and another spotted flycatcher. The group finished the excursion in typical 'Nats' style at the cafe for some refreshments to end a great day.

Ptolemy McKinnon

Eddleston Walk NT 239471

Leader: David Adamson

29th August 2015

The Society last visited the Tweed Trail called the 'Cloich Forest Circular' on 12th September 2009. On that occasion a large party had straggled round the 8.5 mile route in unbroken sunshine. There had been butterflies and fungi in abundance. Today a much smaller group of eight set off through the policies of Barony Castle Hotel to join the old north-south drove road. Three turned back near Shiplaw, and the other five completed the circuit that passes Cloich Farm, Courhope and Upper Stewarton. Although this was mainly intended to be a late summer leg-stretcher, the inevitable natural history interest helped to make this a memorable day, if a slower walk.

Two weeks previously Mike Robinson had photographed a horntail *Urocerus gigas* in the Barony Castle Hotel woodlands. These are large sawflies of a deceptively fierce appearance, and not very common. Therefore it was a pleasant surprise to find another one in the hotel grounds. Very soon after this we began to notice ladybirds on the fenceposts under the trees. One fencepost would have a couple of larch ladybirds *Aphidecta obliterated* and a 10-spot *Adalia 10-punctata*, the next perhaps a 10-spot, and then six larch ladybirds on a single fencepost. Progress is slow when you are examining every fencepost for a couple of miles for ladybirds. We found hundreds of larch

ladybirds, abundant 10-spots, and ended up with eight species of ladybird before we had covered even half the walk. In addition to the two species already mentioned we found cream-spots *Calvia 14-guttata*, pine *Exochomus 4-pustulatus*, eyed *Anatis ocellata*, striped *Myzia oblongoguttata*, a 2-spot *Adalia 2-punctata* and a couple of 7-spots *Coccinella 7-punctata*.

We ran out of fenceposts as we made our way into the forest past Cloich Farm, but progress was again checked, at least for Ptolemy, by birds dislodging cones from the top of a conifer. Neither Ptolemy nor Mike were able to confirm the crossbills that we suspected were responsible, but Ptolemy's persistence was rewarded by the sight of spotted flycatchers *Muscicapa striata*. He later saw more of these birds near the Barony Castle Hotel.

In the deep shade of the forest a hare *Lepus europaeus* sprinted between the trees, and we attempted to photograph fungi. At last we emerged from the woods, rejoined the drove road, and returned to Eddleston, diverting only to look at the Great Polish Map of Scotland. This is a huge concrete topographical map in the hotel grounds. Polish army officers had been based at the castle during the Second World War, and an area had been set aside for use as a map for strategic planning. One of these Polish soldiers subsequently took over the hotel and commissioned the construction of this three-dimensional map on the same site. Its condition has deteriorated in the subsequent forty years, but it is now being restored with funding from a Heritage Lottery grant.

We were tired and thirsty after our walk of almost six hours, so it was disappointing that the Scots Pine Café appeared to be closed. However a visit to Tom Delaney on our way home produced tea, biscuits, and a tour of his impressive garden. And so the day ended happily after all.

David Adamson

Blairadam Forest, near Kelty NT 129946

5th September 2015

Leader: Ian Schoolar

A group of 12 of us set off to walk in Blairadam. This was better than the excursion originally planned for Loch Glow which following a recce was deemed not suitable. Thanks to David Adamson who suggested this alternative.

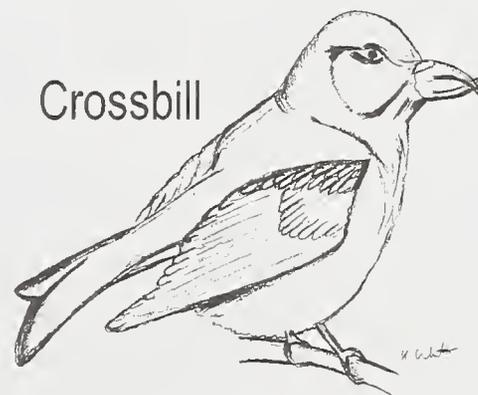
The walk at Blairadam was very interesting botanically, ornithologically and mycologically. The estate was originally bought by Robert Adam who built the house in 1736 and still it is family owned today. The original house still stands and is run as an upmarket bed and breakfast by Keith Adam.

We saw an abundance of ferns mainly male fern *Dryopteris filix-mas*, but also beech fern *D. phegopteris*, oak fern *Gymnocarpium dryopteris* and hard fern *Blechnum spicant*. Mosses were also abundant with common hair moss *Polytrichum commune* the most common, but also some interesting *Sphagnum* sp.

Fungi were also prevalent in a largely woodland setting mainly of Norway *Picea abies* and Sitka spruce *P. sitchensis*. Examples included: *Russula drimeia*, cauliflower fungus *Sparassis crispa*, common earthball *Scleroderma citrinum*, beech milkcap *Lactarius blennius* and plums and custard *Tricholomopsis rutilans*.

A red squirrel *Sciurus vulgaris* as well as many species of birds were seen in the trees; tree creeper *Certhia familiaris*, common crossbill *Loxia curvirostra*, spotted flycatcher *Muscicapa striata*, great spotted woodpecker *Dendrocopos major*, coal tit *Peripatus ater*, great tit *Parus major* and jay *Garrulus glandarius*.

There were plenty of insects: birch sawfly *Croesus septentrionalis*, 7-spot ladybird *Coccinella 7-punctata*, larch ladybird *Aphidecta obliterated*, gorse shieldbug *Piezodorus lituratus*, a hover-fly *Eupeodes nitens* and a common hawket *Aeshna juncea*. Another hover-fly was identified by David Adamson as the bog hover-fly *Sericomyia silentis*. Also spotted were plenty of bumblebees; a male white-tailed *Bombus lucorum*, buff-tailed *B. terrestris*, early *B.*



Crossbill

pratensis, common carder bee *B. pascuorum*, garden *B. hortorum* and forest cuckoo *B. sylvestris*. It was a bit overcast so only a few butterflies appeared including peacock *Inachis io* and green-veined white *Pieris napi*.

There was a plethora of botanical species: field horsetail *Equisetum arvense*, wood horsetail *E. sylvaticum*, hard rush *Juncus inflexus*, soft rush *J. effusus*, compact rush *J. conglomeratus*, common yellow sedge *Carex demissa*, smooth lady's-mantle *Alchemilla glabra*, wild strawberry *Fragaria vesca*, wood-sorrel *Oxalis acetosella*, hedge woundwort *Stachys sylvatica*, pink purslane *Claytonia sibirica*, chickweed-wintergreen *Trientalis europaea*, raspberry *Rubus idaeus*, heath grass *Danthonia decumbens*, square-stalked St John's-wort *Hypericum tetrapterum*, slender St John's-wort *Hypericum pulchrum*, common figwort *Scrophularia nodosa*, cat's ear *Hypochaeris radicata*, hornbeam *Carpinus betulus*, sheep's sorrel *Rumex acetosella*, wild angelica *Angelica sylvestris* and heath cudweed *Gnaphalium sylvaticum*.

We all finished up in Baxter's Restaurant watching a magpie *Pica pica*. It was sunny by then.
Ian Scholar

Note: At the Blairadam lunch spot I found myself sitting on a large area of *Baeomyces rupestris*, a crustose lichen usually found on earth or stones in damp places. It was perfectly dry (no wet bottom) and the lichen was covered with tiny mushroom-like fruit. I had never seen it fruiting so abundantly and wondered if it was a response to drying out.

Nearby was another phenomenon: a spear thistle *Cirsium vulgare* pappus which had dropped off entire and was lying upside down on the grass. It was quite extraordinary and a photo of it won a prize at the Botanical Society's November meeting at RBGE, and appears on the front of the current Botanical Society of the British Isles Newsletter.

Jackie Muscott

Devilla Forest, Kincardine NS 972882

12th September 2015

Leader: Wilma Harper

'It was a lovely day when we did the recce!' I said as 11 Nats gathered in the rain at Righead Walled Garden. Parking at the garden, of which more later, gave us a chance to explore the northeast corner of Devilla Forest in Fife. This was the third excursion I had led there, each starting from a different point. Devilla Forest is unusual in this part of Scotland being dominated by Scots pine *Pinus sylvestris* with an understorey of heather *Calluna vulgaris* and blaeberry *Vaccinium myrtillus* in many places. The current trees are mainly 1950s planting but there is a long history of woodland in some parts of the forest giving it a semi natural character.

The first section of the walk took us along a rough path and progress was also made slow because people spotted fungi to examine and try to identify. Given that the previous 10 days had been the longest spell of settled dry weather this summer it was good to see this.

Once on the forest road we headed towards Praebrae, named after the farm whose ruins we found on the recce. The area had been used during the war and for some years after for the Admiralty to research the effect of explosives on ship construction but all that remains are some concrete slabs and earth banks. By then the rain was coming down steadily so we headed into the nearby beechwood. In the gloom, it wasn't looking its best but we soon spotted a range of fungi of which the hedgehog *Hydnum repandum* was perhaps the most memorable.

Energy levels were dropping and waterproofs were dripping but fortified by some of our lunch, the group rallied and we headed off again. Once out of the trees we realised that the rain was easing off. In a small area we had a nice specimen of fly agaric *Amanita muscaria*, peeking out from a lichen covered stump and slippery Jack *Suillus luteus* plus a few others boxed to identify later.

The route then took us off the forest road and onto a smaller track through more open ground and younger trees



Hedgehog fungus

to the end of Peffermill Dam. This is the largest water body in the forest originally a reservoir for a paper mill. What from the distance looked like grass on closer inspection was bulbous rush *Juncus bulbosus* with *Agrostis stolonifera* through it. This was a comparatively unusual habitat and some of the notable species are listed below of which *Littorella uniflora* caused the most excitement. This could be a new record although the National Biodiversity Network Gateway shows it nearby on the north edge of the Moor Loch also in Devilla. The water level is clearly higher most of the year as the *Juncus* and *Littorella* would be underwater most of the year.

The loch also yielded the birds of the day, a flock of teal *Anas crecca* on the water and of mainly young swallows *Hirundo rustica* flying over. The weather wasn't the best for birds but may have brought out the toadlets spotted on the paths. The sunny day of the recce had been good for dragonflies and butterflies but none were seen today.

Heading back to the walled garden along the same route was a brisk walk and the prospect of tea and cake, no doubt putting a spring in the step. The walled garden is a recent venture - a new walled area with a range of flowers and vegetables, a small shop and a nice cafe doing tea and cakes. We had spoken to them in advance and were soon sitting at our reserved table swapping notes on what we had seen. Liaison between David and Mary expanded the fungi list thus; *Amanita fulva*, *A. vaginata*, *Lactarius blennius*, *Leccinum scabrum*, *L. versipelle*, *Phaeolepiota aurea*, *Pholiota flammans*, *Russula atropurpurea*, *R. claroflava* and *R. ochroleuca*. Jackie and others created a list of damp loving plants: wood small-reed *Calamagrostis epigejos*, common yellow sedge *Carex demissa*, bottle sedge *C. rostrata*, common spike-rush *Eleocharis palustris*, marsh pennywort *Hydrocotyle vulgare*, water purslane *Lythrum portula*, shoreweed *Littorella uniflora*, water pepper *Persicaria hydropiper*, redleg *Persicaria maculosa*, lesser spearwort *Ranunculus flammula*, reedmace *Typha latifolia* and marsh speedwell *Veronica scutellata*.

Wilma Harper

Footnote: The plant which most excited me was *Lythrum portula* - a small, uncommon, mud-loving relative of purple loosestrife *Lythrum salicaria*.

Jackie Muscott

Portmore Woods, near Eddleston NT242475

19th September 2015

Leader: Chris Ellis

The old Peebles road north of Eddleston was crowded with the cars of two walking groups and ourselves on a day of sunshine and blue sky. One or two new faces caused a bit of confusion but eventually a count of 19 was agreed for our party. We were glad to welcome Chris as leader, accompanied by Becky and the two growing boys, Simon and Wyn. He explained that as well as covering old ground of morphology and classification he was also encouraging us to participate in a new project promoted by RBGE to survey epiphyte communities in woodland. We all were given a 14 page pamphlet of colour plates of common woodland lichens to encourage us to begin reporting sightings from all over Scotland.

A convenient ash *Fraxinus excelsior* tree near to the start of our walk served well to illustrate the features of lichens in the three main morphological types. We quickly found *Ramalina farinacea* a pale green tufted example of a **fruticose** species, which is closely similar to oak lichen *Evernia prunastri*, also present. **Foliose** ones included *Xanthoria parietina* probably the most common yellow/orange lichen bearing disc shaped apothecia containing the sexual ascospores. Also in the same group, we found *Platismatia glauca* formerly known as *Cetraria*, characterised by a pale green thallus with a chestnut underside and *Parmelia sulcata* where we were introduced to powdery asexual reproductive bodies called soredia. The third group of **crustose** species, very common on smooth barked young trees, included *Lecanora chlorotera* and *Lecidella elaeochroma*. Less well known but widespread was *Phlyctis argena* with a pale grey to white thallus.

We followed an avenue of gigantic Pacific coast conifers uphill towards Portmore House. The Wellingtonias *Sequoiadendron gigantea* were lichen free but on the Douglas firs *Pseudotsuga menziesii* we found the 'script' lichen *Opegrapha atra* and also came across a species of a minor

group known as **leprose**, powdery with no discernable thallus structure. This pale grey-green species was *Lepraria incana* and is to be found commonly on both rocks and tree trunks. A second related lichen had an amorphous lemon-yellow thallus *Chrysothrix caudularis*. It was seen in cracks in the bark of ageing broadleaves, particularly oak *Quercus* sp. and ash *Fraxinus excelsior*. It derives its specific name because years ago it was in use for colouring candles yellow. On the ridges between the cracks that it inhabits was a **crustose** grey lichen called *Lecanactis abietina* with small columnar pycnidia giving the surface a lumpy appearance.

At the base of several trunks of Douglas firs was a band of dark green (when wet) lichen *Hypocenomyce scalaris* with squamules with small soredia.

A single specimen of an exotic conifer only recently discovered in the 1940s, had been planted here even more recently. It is the dawn redwood *Metasequoia glyptostroboides* from China. All the individuals in Europe are quite small and the one at Portmore was only about 4m tall.

An ancient hazel *Corylus avellana* tree with damaged limbs had white-grey patches of *Pertusaria pertusa* with wart-like apothecia and nearby a plantation of larches *Larix decidua* had the distinctive long khaki 'beards' of the **fruticose** *Bryoria fuscescens*, more common in the Highland pine forests than the Borders.

We did of course see other wildlife, but they were only of passing interest. Nuthatches *Sitta europaea* were singing. Coal tits *Periparus ater* and mistle thrushes *Turdus viscivorus* were other avian diversions. Several members searched the fence posts as they passed and found larch ladybirds *Aphidecta oblitterata*, earwigs and forest shield bugs *Pentatoma rufipes*. Fungi such as butter waxcaps *Hygrocybe pratensis* aroused interest along with several *Russula* spp and a perfect example of *Amanita crocea*.

The clouds were beginning to gather and the closing time for the Scots Pine Café approached, so we retreated in some haste to pots of tea and cakes for some. An excellent day all round.

Neville Crowther

Footnote: Another curiosity on the estate was a single-leaf ash which have a single large leaf instead of the normal pinnate arrangement of smaller leaflets. It looks strange but can be recognised by the black buds, flowers and fruit which are normal. Jackie Muscott

Spottiswoode Estate, near Lauder NT 602499

26th September 2015

Leader: David Long

A party of 12 met at Spottiswoode, the home of the leader, Dr David Long, on a beautiful sunny day. The area had been part of a large estate which was broken up in the 1930s, the mansion house demolished and the woodlands acquired by the FC. Several properties now occupy the former estate, the Longs' home having previously been the groom's house with stable wings. They also own a considerable area of land, some of which is mature woodland, some their own recent plantings following the felling of Sitka spruce *Picea sitchensis* and some moorland. It was round these different habitats that the route of the excursion lay.

We started off down Trumpeter's Avenue, so-called because in bygone times the arrival of guests had been announced by a trumpeter! With such a variety of habitats, we had a good variety of sightings. Although, by this time of year, flowers in bloom were sparse, there was a great deal of climbing corydalis *Ceratocarpus claviculata* in full bloom. Ferns were plentiful everywhere. On a wall near the starting point, our leader pointed out a moss with which we were not familiar. This was rambling tail-moss *Anomodon viticulosus* which is a lime-lover.

No doubt because of the sunny conditions, we saw more insects than we had on most excursions this year including peacock *Aglais io*, red admiral *Vanessa atalanta* and small tortoiseshell *Aglais urticae* butterflies. Early on, a large devil's coach horse *Staphylinus olens* was spotted, looking rather like an earwig and later, four species of ladybird and five species of bumblebee. The latter included the uncommon field cuckoo bumblebee *Bombus campestris* on creeping thistle *Cirsium arvense*. Tightly packed groups of caterpillars on a young beech *Fagus sylvatica* were identified as larvae of the buff-tip moth *Phalera bucephala*.

Although the weather had been dry, a good number of fungi were seen. Finds in Trumpeter's Avenue, which was lined with mature trees, included beechwood sickener *Russula nobilis*, geranium brittlegill *Russula fellea* and beech milkcap *Lactarius blennius*, all associated with beech *Fagus sylvatica*. In an area of young birch *Betula* sp. were the coconut milkcap *Lactarius glyciosmus*, said to smell of coconut toffee and birch milkcap *Lactarius tabidus* whose milk stains a white handkerchief yellow. Among rough grass in the moorland was one of my favourites, the tiny bright yellow *Hygrocybe vitellina* whose cap, stem and gills are all glutinous. A final treat was flaming scalycap *Pholiota flammans* another bright yellow species lighting up a conifer plantation. Tea and cake in the Longs' kitchen rounded off a great day.

Mary Clarkson

Almondell – Calderwood: leads to challenges! NT 090692

3rd October 2015

Leader: Eunice Smith

In previous years Calderwood has yielded some really interesting finds such as the false deathcap *Amanita citrina*. However, as in all matters of natural history interest, the time of year and recent weather can be critical as to what may be evident on the day. A lengthy visit to Calderwood two days in advance of the foray resulted in only three suitable specimens. Thankfully it was possible to re-locate to Almondell Country Park and to give notice of the change of venue on the website. Doubts of fungal finds remained and so importing some fresh specimens for study at the new venue seemed to be worthwhile. Fungi collected from our garden and from Davidson's Mains Park then provided a display at the start of the Almondell foray.

The small group discussed the finds and related them to the information in a selection of books.

Candlesnuff and **coral spot** were each easily identified. **Turkeytail**, one of the small bracket fungi, was relatively common although **lumpy bracket**, in the same genus, was a more unusual occurrence. Less familiar to most of the group was the **giant polypore** which is very destructive to trees such as beech *Fagus sylvatica* and whitebeam *Sorbus aria*. The **collared earthstar** vied for attention with the **chicken of the woods**, the **giant funnel** and the doubtful 'attraction' of several **stinkhorns!** Here is a challenge, if necessary with the help of a book or website, to match the common names of the fungi mentioned above with the scientific names in this list:-

Geastrum triplex; *Laetiporus sulphureus*; *Leucopaxillus giganteus*; *Meripilus giganteus*; *Nectria cinnabarina*; *Phallus impudicus*; *Trametes gibbosa*; *Trametes versicolor*; *Xylaria hypoxylon*.



However, we had not come to spend all day in the south carpark but to visit the Country Park. The day was sunny and very inviting and we set out to find what Almondell could offer for further interest. We made our way along the path between the trees and relatively sparse vegetation and lingered on the Naysmith Bridge where most of us managed to catch a view of a dipper *Cinclus cinclus*. We continued on the north side of the river and enjoyed a timely break for lunch beside the visitor centre. The weather was still beautiful and so we crossed over the river and made our way back to the carpark. Thankfully we had enjoyed a reasonable rest as that route had a much stiffer gradient!

Keen eyes spotted fungi on trees, plants and on the soil itself but this report concentrates on those found on or associated with wood - whether standing or fallen. One pair of sharp eyes noted *Daldinia concentrica* growing on dead wood: this fungus is like a dark hard ball and if cut, with care!, displays a wonderful pattern of concentric rings. Also found was *Oudemansiella mucida* which, by contrast, was slimy and pale in colour. *Neobulgaria pura* had something of the same 'jelly-like' texture and a hint of violet in the colour. *Hypoxylon fragiforme* has its own varying colour-code as it progresses from pink to red to black. *Piptoporus betulinus* and *Polyporus squamosus* are relatively common brackets and evident all year round. *Pleurotus ostreatus* is usually found in clumps on deciduous trees. Inevitably we came across *Trametes versicolor* and *Xylaria hypoxylon* and were delighted to see *Lycoperdon pyriforme* beside the path. Finally, on sycamore *A. pseudoplatanus* leaves there was *Rhytisma acerinum*.

The second challenge is to match the fungi found at Almondell with the common names in this list:- **beech jellydisc; beech woundwort; candle snuff; dryad's saddle; King Alfred's cakes; oyster mushroom; porcelain fungus; razorstrop fungus; stump puffball; sycamore tarspot; turkeytail.** My thanks to Mary Clarkson for her assistance with identifications at Almondell and for her meticulous listing of the substrate of the fungi which were found.

Eunice Smith

Butterdean Wood, Gladsmuir NT 459729

24th October 2015

Leader: Pauline King

Butterdean Wood near Gladsmuir is a mixed plantation with a good variety of trees and shrubs, both native species and introductions from Europe and America – over 30 species recorded during our visit.

A native species is one which migrated from Europe after the last Ice Age, and managed to cross the land bridge between Britain and Europe before it was submerged by rising seas. Birches *Betula* spp. and willows *Salix* spp. would have been among the first to arrive and the first to reach Scotland. Others followed, many like the oaks *Quercus* spp. and the ash *Fraxinus excelsior*, being comfortable all over Britain, but the Scots pine *Pinus sylvestris* seems to have passed through most of the country until it found a suitable long-term home in the Scottish Highlands. Other trees, like beech *Fagus sylvatica* and hornbeam *Carpinus betulus* never made it across the Scottish border until humans intervened.

All these trees and more were present at Butterdean, along with sycamore *Acer pseudoplatanus*, an early introduction from Europe, probably in the 15th century, though some people blame the Romans, and Norway spruce *Picea abies* the original Christmas tree, also from Europe. By contrast Sitka spruce *Picea sitchensis*, familiar from forestry plantations, comes from the north west of America as does Douglas fir *Pseudotsuga menziesii*, named to commemorate Archibald Menzies who discovered it and David Douglas who introduced it. The western hemlock *Tsuga heterophylla* has a wide range in the west of the USA while Lawson's cypress *Chamaecyparis lawsoniana* comes from Oregon and NW California and gets its name from Lawson's Nurseries in Edinburgh where it was introduced in 1864.

The first part of our walk took us along the west side of the wood, where a ditch provided a different habitat and where we found one of the few plants still flowering, water forget-me-not *Myosotis scorpioides*, and also the star plant of the day, great horsetail *Equisetum telmateia*, which

is scarce in the Lothians. However this side of the wood caught the wind and we were glad to find a more sheltered spot for lunch, and for the return journey on the east side of the wood.

Other plants still flowering included some sheltered honeysuckle *Lonicera periclymenum* and red campion *Silene dioica* and herb robert *Geranium robertianum*, which habitually flower late. A couple of galls were noted: small pimples scattered over Alder leaves *Alnus glutinosa* caused by a mite *Eriophyes laevis* and a 'mop-head' deformation of fern fronds caused by a fly *Chirosia betuleti* whose larvae develop inside the rachis causing it to curl.

Most of the fungi recorded were growing on dead wood: candlesnuff *Xylaria hypoxylon*, sulphur tuft *Hypholoma fasciculare* and the large bracket of birch trees *Piptoporus betulinus*. There were two much smaller brackets - on conifer wood *Trichaptum abietinum* with purplish pores and on wood from broadleaves *Plicaturopsis crispa* which has folds rather than gills. Mary Clarkson was interested in the latter as she thinks it is becoming more common. More conventional 'mushrooms' included the sturdy roll rim *Paxillus involutus* and the more delicate *Clitocybe fragrans* growing in leaf litter.

The statutory buzzard *Buteo buteo* flying overhead completed a pleasant autumn walk.
Jackie Muscott

Kerse of Kinneil, Grangemouth NS 963811

14th November 2015

Leader: Tom Delaney

As on our previous visit in 2013, the weather forecast for the day was poor, but unduly pessimistic. The rain that had been promised didn't materialise, and though the wind was cold and blustery, our backs were to it as we headed east during the morning, and by the time we turned back it had dropped considerably.

A total of 11 hardy souls foregathered, next to the somewhat malodorous sewage-treatment works and in the shadow of the Grangemouth petrochemical industrial complex. But the contrast with the immediate surroundings is remarkable: the Inner Forth provides a huge extent of rich tidal mudflats, while landwards the whole area east to Bo'ness comprises derelict, brownfield land which has developed into a variety of semi-natural woodland and wetland habitats, part of which has been designated an LNR.

We set out at about mid-tide, and the plan was to walk east along the seawall, seeing what we could spot, and then to watch the mass exodus of the waders from the flats as the rising tide drove them to roost on the adjacent lagoon. Interestingly, a dog-walker, parking alongside us, reported having seen a weasel *Mustela nivalis* run across the approach road.

First, we were greeted by a flighty party of about 40 goldfinches *Carduelis carduelis*, feeding on a prolific crop of weedseeds on the rough ground round our parking place. Then a snipe *Gallinago gallinago* rose nearby, two kestrels *Falco tinnunculus* appeared, hovered in the wind and hunted over the seawall, and a single buzzard *Buteo buteo* showed itself intermittently.

From the sea wall, we saw a single female goosander *Mergus merganser* on the river and, on the mud close in, small flocks of golden plover *Pluvialis apricaria* and lapwing *Vanellus vanellus*. More distantly, there were larger groups of redshank *Tringa totanus*, dunlin *Calidris alpina*, bar-tailed godwit *Limosa lapponica* and scattered individual curlews *Numenius arquata*. The mudflats are famously home to hundreds of shelduck *Tadorna tadorna*, but at this stage of the tide they were mostly too distant to be appreciated.

A group of four goldeneye *Bucephala clangula* flew up from the outlet from the lagoon and a pair of red-breasted mergansers *Mergus serrator* were seen on the bank of a nearby creek. Also on the creeks were lots of mallard *Anas platyrhynchos*, teal *A. crecca* and a few wigeon *A. penelope* were seen in flight, but there was no sign of pintail. As we approached the lagoon, Neville found a greenshank *Tringa nebularia* and a few moments later two more!

As the tide flooded, and the waders started their aerial manoeuvres, our party became elongated, some pressing ahead to the area where a short-eared owl *Asio flammeus* had been reported to us during our recce two days before. The bird showed up right on cue, hunting with slow-motion

wingbeats obligingly close, low over the seawall path, providing unforgettable images of pale, striated plumage, contrasting carpal patches and a penetrating stare from a glaring eye. After a little while, it disappeared over the bank; when we clambered up to see if we could find it again we found not one but two birds quartering over the heavily vegetated former rubbish dump.

At this point, Jackie, who had gone off first thing to investigate the botany further east, rejoined us; when told about the owls, she confided that she had seen one early on and had very close views as it sat on the ground. Returning to the lagoon which was now starting to fill with the rising tide we took our lunch and scanned the flocks of waders that had retired there from the mud. They included about a dozen black-tailed godwits *Limosa limosa*, the first we had seen that day and, mysteriously, much fewer than had been there in previous years. Most mobile were the flocks of dunlin, which from time to time wheeled above the pool, flashing light and dark as they turned in the fitful sunlight that had now appeared.

The sun was not to last for long, however, and clouds threatened imminent rain. We returned to the cars on a path between long disused sewage lagoons. A short investigation showed them now to be too dry to hold snipe or the hoped for jack snipe *Lymnocyptes minimus*. Jackie and Mary went off to explore the birch wood as the rest of us headed for home.

There were a few plants still in flower or going to seed. The main ones David recorded were mignonette *Reseda lutea* and Smith's cress *Lepidium heterophyllum*. The mosses he identified included *Orthotrichum diaphanum* and *Orthotrichum anomalum*. Mosses are epiphytes, commonly found on tree bark. Unusually the former is pollution-tolerant and was on concrete, with the latter on building rubble.

Tom Delaney

Gullane Bents NT 475831

5th December 2015

Leader: Peter Leach

Only four Nats set off from Gullane Bents car park at 10.30 on a mild but wild December morning, many deterred by the forecast of strong winds and heavy rain. The forecast was accurate as regards the wind, but the rain was thankfully light and intermittent, and the weather enhanced parts of the walk instead of spoiling it.

Sea buckthorn *Hippophae rhamnoides* bushes form a barrier between the beach and the town, and many were draped with orange berries that attracted small flocks of fieldfares *Turdus pilaris*. There were also some apple trees *Malus* sp. by the path, and we wondered why they had been planted in such an unlikely site for an orchard. Further on was a small yew *Taxus baccata* that we used as a wind break while Peter returned to the car park to try to meet Noeleen and Fraser, who had arrived after our departure. Peter didn't manage to find them, but did encounter a roe deer *Capreolus capreolus* that had been sheltering among the buckthorn. Meanwhile Ptolemy had a good view of a sparrowhawk *Accipiter nisus* as it swooped low over some dragon's teeth.

After watching eider *Somateria mollissima*, red-breasted merganser *Mergus*



Short-eared owl



serrator, turnstones *Arenaria interpres* and velvet scoters *Melanitta fusca* from the beach, we headed in the direction of Aberlady on a path that led us across the edge of the golf course. On the way we passed small orchid spikes that may have been those of the frog orchid *Coeloglossum viride* and the black tongues of a *Geoglossum* or *Trichoglossum* fungus. We were relieved when we were able to turn away from the wind and begin the homeward leg of the outing. Soon we were admiring the spectacle of the dry sand being blown like smoke at ankle height along the beach.

Tusk shell

Lunch was taken in the shelter of a large rock. Sarah found many *Arctica islandica* shells in the cove below the rock. She also found an unusual *Scaphopoda* 'tusk' shell, shaped as the name implies. Both *A. islandica* and the tusk shell are sub-tidal and had no doubt been washed ashore by the storm.

Finally we clambered over and around some stratified rocks, admiring the geology without knowing much about it. On a further beach we found two fox moth *Macrothylacia rubi* caterpillars out of their usual element, and then a patch of winter heliotrope *Petasites fragans* just coming into flower by the path back to the car park.

Being gluttons for punishment, Ptolemy and I spent half an hour at Musselburgh on the way home looking for short-eared owls. The owls were too wise to fly on such a day, but we did see four grey partridge *Perdix perdix*, a kestrel *Falco tinnunculus* and two reed buntings *Emberiza schoeniclus*, so the encore was worthwhile.

Thanks to Peter for leading, and for being undeterred by the weather forecast.

David Adamson

Ratho Canal Walk and Lunch, Ratho NT 140709

28th December 2015

Leader: Janet Watson

Eleven of us met on the north side of the bridge over the canal at Ratho where instead of the familiar rough parking place we drove into what looked like a car park for residents of the newly built houses but there were spaces for the public too. A marina off the canal had been built surrounded by some of the new houses.

The day was dry which was fortunate as it had been one of the wettest Decembers on record and a very mild winter to date. As the ground was exceptionally muddy we headed along the canal towpath towards Edinburgh where we learned we could have travelled by barge to Edinburgh in 1832 for 6^d and to Falkirk for 1/6^d.



Goldfinches

We were lucky in the number and species of birds we spotted being: mute swans *Cygnus olor*, greenfinches *Carduelis chloris*, goldfinches *C. carduelis*, chaffinches *Fringilla coelebs*, bullfinch *Pyrrhula pyrrhula*, bluetits *Cyanistes caeruleus*, great tits *Parus major*, long-tailed tits *Aegithalos caudatus*, house sparrows *Passer domesticus*, blackbirds *Turdus merula*, thrushes *Turdus* sp, dunnock *Prunella modularis*, collared doves *Streptopelia decaocto*, wren *Troglodytes troglodytes*, treecreeper *Certhia familiaris*, grey wagtail *Motacilla cinerea* and even a skylark *Alauda arvensis*.

Meanwhile Jackie Muscott examined the flora and found, in flower, on the towpath: annual meadow grass *Poa annua*, white dead-nettle *Lamium album*, red campion *Silene dioica* and alder, probably *Alnus incana*. On the field edge she found scentless mayweed *Tripleurospermum inodorum* and field speedwell *Veronica persica*. In fruit on the towpath were holly *Ilex aquifolium*, rose hips *Rosa* sp. and an apple tree *Malus* with smallish apples.

The fungi spotted include Dryad's saddle *Polyporus squamosus*, grey polypore *Bjerkandera adusta* and tar spot *Rhytisma acerinum* on some sycamore *Acer pseudoplatanus* leaves.

We walked for a little more than a mile before returning on a muddy path below the canal for some distance, after which 16 of us enjoyed lunch at the Ratho Park.

Janet Watson

Indoor Meetings

The Changing Order of Spring Phenology

21st January 2015

Speaker: Dr A Phillimore, Advanced Fellow, Natural Environment Research Council

Phenology, studies how climate influences plant and animal life cycles. Ally's talk discussed how citizen science has a long and distinguished history and has been central to UK phenology monitoring.

The recording of phenology in the UK started with Robert Marsham in Norfolk in 1736, where his family continued recording '27 indicators of spring' until 1958. The end of this historic record was unfortunate as there have been greater increases in temperature since the mid twentieth century.

Other sources of data are available from the Royal Meteorological Society, BTO nest record scheme, Nature's Calendar by the Woodland Trust, UK Butterfly Monitoring Scheme and the large number of naturalists in the UK.

Work by Amano et al. (2010) shows that there is a correlation between spring arriving five days earlier in years when there is a 1°C temperature increase. A study by Phillimore et al (2010) suggests that amphibians will show a large change by spawning up to 30 days earlier. There is a lack of long term studies focusing on individual species with the exception of great tits being studied near Oxford. There are concerns that secondary consumers are most at risk of the changes as they may not keep up with other species e.g. oaks and caterpillars are seven days earlier – but great tits are only hatching four days earlier.

How much species will be affected by future conditions is uncertain. Some studies have looked at how much change is possible through phenotypic plasticity e.g. flexibility between the north and south which experience different temperatures and how much local adaptation, evolved differences between populations, may affect the responses of species to changing temperature. Future temperature projections show the south east of England will experience the largest temperature increases, so species there are likely to be most at risk.

Tree species may respond to winter chilling and spring forcing. Some tree species are thought to have a chilling requirement, where a period of cold during autumn/winter is needed to stimulate spring growth. If this chilling requirement is not met during warm winters it could delay the timing of leafing in spring. Historically, birch trees have leafed before oaks in 93% of years, but if temperature projections prove to be correct this could reverse after 2040. In time this could contribute to change in the composition of British woodlands.

Taking phenology research forwards requires datasets for species interactions. Ally currently has two PhD students researching this area. Christine Tansey is looking at woodland communities and has set up the Track a Tree project and Jack Shutt has started a PhD studying blue tit phenology in Scotland.

Sharon Yardy

Otters: Natural history and rarely observed behaviour

18th February 2015

Speaker: Mel Findlay, Findlay Ecology Services

The speaker has spent her adult life working in various areas of wildlife conservation. This included a spell in Lothian working for SWT, self employment as an ecologist throughout Scotland including site condition monitoring contracts for SNH and recently a part-time return to Napier University as a doctorate research student studying otters.

The illustrated talk, much of it about this research, was really about her passionate involvement for

many years with otters *Lutra lutra*. She described the limitations and the slow progress made in earlier years in studying otter biology, where searching for signs, sitting for hours hoping for visual sightings or even more recently radio tracking. All had serious limitations. Her use of camera tracking has enabled a much more intimate picture to emerge in her present research much of it carried out near to her home in Kelso although her explorations included Skye and Shetland. The infra-red camera allows access to the nocturnal life of otters once holts have been identified. Mel showed us dozens of clips of life at and around the entrance to holts where the characteristics of both sexes were visible for us to see. The finding of natal holts was always difficult, but once achieved opened up further secrets of the early life history of pups. In Britain otter males are polygamous often attending several females in the same time span, over a linear territory of up to 7 km. We watched the emergence of juveniles about 8 weeks after birth and their play activity, all ultimately with a serious purpose. The females were protective of their young when a male visited as cannibalism is not unknown. The death of young encourages the resumption of oestrous. In other parts of Europe polyandry has been recorded, so it might all be about the 'selfish gene'. At the end queries came thick and fast and covered topics, such as other mammalian visitors to holts and the interaction between them, the practicalities of siting cameras and losses of equipment due to theft and 'drowning' during floods, the spread of distribution boundaries and conflict with fishing interests.

The infectious enthusiasm of the speaker stimulated many questions at this well attended meeting.
Neville Crowther

Biodiversity – beyond the grief: Data driven approaches to protecting and restoring wildlife in New Zealand and Scotland

18th March 2015

Speaker: John Sawyer, Chief Executive Officer of the National Biodiversity Network Trust

On the first occasion I visited New Zealand, as we made our approach the pilot of the aircraft announced over the public address system. 'We will be landing at Auckland in about 20 minutes. The local time is 1.20pm and passengers are advised to put their watches back 30 years.'

Over the next couple of months I concluded that this wasn't true, apart perhaps from some of the cars that New Zealanders drive.

John Sawyer's illustrated talk confirmed this view, I don't mean the cars, and showed New Zealand to be assertive and progressive in its efforts to conserve and enhance its native wildlife.

John has recently returned from a period of 20 years working for New Zealand's Department of Conservation (DOC) and his talk graphically illustrated the philosophy and radical practical methods adopted by DOC to control invasive species, largely imported from Europe, and conserve and restore native plants, animals and birds.

John is now Chief Executive Officer of the National Biodiversity Network Trust and he used his experience in New Zealand to highlight areas where voluntary effort in Scotland might significantly contribute to wildlife conservation, particularly in the area of recording.

His overall message was, 'Recognise the difficulties which wildlife is facing today but be positive and proactive in your response'.

John's talk was extremely well received and its relevance to audience members was confirmed by the lively questioning and discussion which followed.

Peter Leach

Members' Night including an Extraordinary General Meeting

15th April 2015

Peter Leach presided for the evening which started when David Adamson outlined the proposed creation of a Scottish Charitable Incorporated Organisation (SCIO). At a vote it was unanimously agreed that the Society should become an SCIO. This means that the charity can access the benefits of incorporation – including limited liability and legal capacity. The members were also asked to vote on the adoption of a new constitution required for the creation of an SCIO and it was also

accepted.

The remainder of the evening followed the usual structure:-

Firstly, Lesley Fairweather showed how we can give nature a hand. She is convener of the SWT reserve at Woodhall Dean. To tempt us to lend a hand she guided us around the reserve which is an important area of sessile oak and let us see the fellow volunteers and their activities.

Neville Crowther then reminded us what a great length of coastline surrounds Scotland and why it is so important for sea birds giving us a quick summary of the sea birds that we might find.

After coffee served by Sue Crowther and Lesley Fairweather were talks by two of the newest members of the society.

Rob Wallace took us on a tour of some of the brownfield sites in the London area and explained why they are such good habitats for invertebrates, showing us pictures of some of his favourites and encouraging us to go and find Scottish brownfield sites to explore.

Finally, Ptolemy McKinnon introduced us to his masters project he is undertaking about aggression during the breeding season of captive gentoo penguins *Pygoscelis papua* at Edinburgh Zoo.

Sarah Adamson



The Birds and Wildlife of Corstorphine Hill

16th September 2015

Speaker: Ian Moore, Chilloutdoors and Friends of Corstorphine Hill

Ian grew up in rural Leicestershire, fascinated by wildlife from an early age. He joined the RSPB, aged 11, when he gave up egg collecting. He came to Scotland in 1977 to study Natural Sciences at St Andrews University. As a student he wardened at Holme Bird Observatory, Norfolk, and has maintained a lifelong interest in wildlife, birdwatching in over 60 countries. Having lived most of the last thirty years somewhere on or around Corstorphine Hill, Ian described a year in the life of Corstorphine Hill which he usually visits twice daily.

Ian considers the whole area surrounded by the 50 metre contour as the hill itself, rather than just the obvious wooded top. If the sea rose by 50metres then the Hill would become 'Corstorphine Island'! Not much has changed since 1850. The wood is an 'old' wood, going back to the 1600s with some gigantic 320 year-old trees, equating girth with height, present since before Beechmount House was built in 1780. There are 21 recorded ancient woodland marker plants including dog violet, wood anemone and wood sorrel. As well as the many resident birds, eg jay, tawny owl, crossbill, siskin and redpoll, Ian described the arrival and departure of the winter visitors, including redwing, fieldfare and waxwing, through to the summer visitors. The first arrival, not what people expect, is lesser black-backed gull which breeds on hotel rooftops, followed by chiffchaff, the first of the warblers. Both great spotted, 10 pairs, and green woodpecker, 2-3 pairs, are resident, and nuthatch too, first recorded in 2011 are doing well. Badgers live on the Hill, cubs being born late February. Several species of butterfly and bumblebee are found on favourites plants - agrimony, willowherb and creeping thistle, amongst others. This year the cinnabar moth was found. Autumn migration has seen red-backed shrike and alpine swift, the latter particularly causing a mega twitch! September through to November is good for fungi with black bulgar on beech, butter waxcap, earth star, Jew's ear, artist's fungus, field mushroom and magic mushroom. Archaeologically, bronze-age cup marks are visible, as old as 5,000 years.

The final slide listed numbers of species: 92 birds of which 40 breeding; 116 wild flowers; 43 trees; 23 shrubs; 15 butterflies; 13 mammals.

Joanie McNaughton

Photographing Wildlife in Catalonia

21st October 2015

Speaker: Neville Crowther

Two members, Neville Crowther and Tom Delaney, visited Catalonia in 2014. They spent 10 days exploring the scenery and photographing wildlife, especially butterflies. The butterfly guide to that area of Spain devotes 50 pages to blue butterflies *Lycaenidae*. There are around 200 species of butterfly in Spain compared to 50 in Britain and 35 in Scotland. Neville mentioned some of the species seen in Catalonia which can also be seen in Scotland such as common blue *Polyommatus icarus*. A photo of a Spanish brown argus *Aricia camera* showed a black spot instead of the white wing spot of the northern brown argus *Aricia artaxerxes* seen in the north of the UK.

Neville highlighted the insect diversity, including a black-tailed skimmer dragonfly *Orthetrum cancellatum* near the Rio Segre and a tiger beetle *Cicindela germanica* which is bottle green unlike the bright green species we see in the UK.

There were lots of bird photos, including black redstart *Phoenicurus ochruros*. One image showed the amazing views of vultures of which there are a few species in the area including griffon *Gyps fulvus* and Egyptian vulture *Neophron percnopterus*. Unfortunately in India Egyptian vultures are in serious decline due to scavenging from cows treated with Diclofenac, an anti-inflammatory drug. Neville pointed out the similarities and differences in climate, countryside and towns in Spain and Britain, especially Scotland. The journey took them from Barcelona to the Rio Segre and the



foothills of the Pyrenees and its vineyards. One such visit included a taster of the figs *Ficus carica* being grown. A train ride up a valley from Tromp to Poble offered wonderful mountainous landscape and views of the limestone crags overhanging houses. The beautiful scenery was home to many plants including viper grass *Scorzonera humilis* and great yellow gentian *Gentiana lutea*. A photo of sea holly *Eryngium maritimum* was a reminder of plant adaptations to some environments; it's xerophytic, capable of living in very dry and often salty environments. A highlight for Neville, was seeing bladder senna *Colutea arborescens*, a plant he had never seen before. Neville described a region of great

diversity and wildlife excitement which is well worth a visit.

Ptolemy McKinnon

Marine Renewables, Climate change and Ecological Trade-offs: Understanding Impacts and Societies' Understanding

18th November 2016

Speaker: Beth Scott, Senior Lecturer, School of Biological Sciences, Aberdeen University

Beth described the different types of marine renewable energy resources by giving two examples, firstly, underwater turbines and, secondly, floating turbines. Her research involves finding out how the installation of the turbines affects mobile animals, especially whether they would collide with the turbines, whether the turbines would create noise pollution and, finally, whether the energy taken out causes the tide to change.

During the research she used sonar equipment to monitor the behaviour of fish shoals and how they react to the installations. To prevent collisions she measured the depths to which different sea birds dive when catching fish. This is to ensure that the turbines are placed deep enough.

The final point that Beth made was that with these developments in renewable energy there are trade-offs between creating energy and being environmentally friendly.

Fraser Donachie

Forth Island Seabird Counts 2015

Generally, in recent years seabirds throughout Scotland have been suffering some problems. This year, however, reports seem to be suggesting that they have been having more success, with increased numbers of most species returning to breed. St Abb's Head NNR has also noted that most species have had better productivity.

Fulmar *Fulmarus glacialis*: Although individual islands vary, this is the third year where we have seen breeding numbers increase. This year's count is up 7% on both last year's and also on the five year average.

Cormorant *Phalacrocorax carbo*: Breeding numbers peaked in the mid 1990s and then declined each year until 2013. Since then there have been a couple of better years with increases on all islands. This year the number of nests is up 19% on last year and up 24% on the five year average.

Shag *Phalacrocorax aristotelis*: During the winter 2012-13 many shags perished and this resulted in only about half of the birds returning to breed in the spring. Last year and this year there has been a recovery and breeding numbers are now back up to approximately 77% of the 2012 count.

Greater black-backed gull *Larus marinus*: Across the islands the picture varies with some showing small increases and others small decreases. Inchkeith shows a bigger change, down from 14 to 9 pairs, and Craigleith shows the biggest change, up from 31 to 47 pairs. This year's total of 121 pairs is double the 2010 figure!

Lesser black-backed gull *Larus fuscus*: Although these were not counted on all islands, where they were, numbers were down compared to last year.

Herring gull *Larus argentatus*: On the islands where this species was counted there were increases in breeding numbers, except for Craigleith where numbers dropped.

Kittiwake *Rissa tridactyla*: Breeding numbers peaked at about 11,000 nests in the mid-1990s and then went into decline until they reached a low of 2,800 nests in 2013. Since this low, numbers haven't quite doubled, resulting in this year's count of 5113 nests.

Terns: Common tern *Sterna hirundo* numbers have stayed the same as last year. Arctic terns *Sterna paradisaea* have done better and show a 20% increase compared to last year. There was also a report of a possible nest of a mixed roseate *Sterna dougallii*/common tern pair.

Razorbill *Alca torda*: Some islands show increases while others show decreases. Overall there has been an increase of 4% in breeding numbers since last year though this still leaves them down about 12% on the ten year average.

Guillemot *Uria aalge*: On Inchcolm this species has only been spotted on the cliffs for a couple of years. Apart from Inchkeith, which showed a decrease, all of the other islands showed increased numbers on the breeding ledges. Overall numbers are up approximately 26% compared to last year and up 34% on the average for the previous ten years.

Puffin *Fratercula arctica*: It is impossible to count this species on the Lamb in spring without causing excessive disturbance to the cormorant colony. A visit was made in September to carry out a burrow count and we found 620 that had apparently been occupied. This compares to 150 in 1995 and 25 in 1989. No other puffin burrow counts were performed this year.

With thanks to the Forth Seabird Group, SWT and SNH for allowing the use of their data.

Bill Bruce



Summary of Seabird Counts on the Islands in the Firth of Forth

2015	Bass Rock	Craigleith	Lamb	Fidra	Inchkeith	Carr Craig	Inchcolm	Haystack	Inch-mickery + Cow & Calves	Inch Garvie / Forth Bridge	Long Craig	May Isle	Total
Fulmar (AOS)	c35	137	7	170	218	1	255	0	31	271	0	300	1,425
Cormorant (nests)	0	c42+	69	0	c106	c75	0	0	0	0	0	0	292+
Shag (nests)	c14	151	59	179	214	15+	29	0	44	0	0	401	1106+
Gannet (nests)	x	0	0	0	0	0	0	0	0	0	0	0	x
Eider (nests)	x	43+	x	9+	x	0	x	0	27	53	3	x	135+
Great B-b Gull (AOT)	0	47	12 birds	4-5	9+	0	2	1	3	2	0	53	122
Lesser B-b Gull (AON)	x	c100	x	148	x	c8	c1,800	17	66	c32	0	x	c2171
Herring Gull (AON)	x	c1,030	x	897	x	c69	c500	26	283	c288	0	x	c3093
Kittiwake (nests)	c441	537	99	275	260	0	68	0	0	0	0	3,433	5,113
Common Tern (nests)	0	0	0	0	0	0	0	0	0	0	132	13	145
Arctic Tern (nests)	0	0	0	0	0	0	0	0	0	0	0	484	484
Roseate Tern (nests)													0
Sandwich Tern (nests)	0	0	0	0	0	0	0	0	0	0	0	0	0
Razorbill (pairs/sites)	c144	193	46	139	101	0	18	0	0	0	0	3,202 (4,590 b)	3,843
Guillemot (birds on cliffs)	c3,230	c3,053	c3,100	632	243+	0	1	0	0	0	0	21,598 (15945pr)	c31,857
Puffin (birds unless otherwise stated)	2+b	x	620 AOB	400+ b on sea	462 b on sea	0	22+ b on sea	0	25 b on sea	0	0	x	620 AOB 911+ b

AOB/AOS/AOT=Apparently occupied burrows/sites/territories; x=birds present but not counted; 0=none breeding; c=circa; mixed=two species (eg Herring and LBB Gulls) counted together; b=birds; s=sites

Buzzard Attack!

One of the advantages of working in Linlithgow is that it's pretty easy to get into the countryside from almost anywhere in the town. As someone who likes to go for a lunchtime jog, I can often be found running around the surrounding hills and fields. One particular track leads from near my workplace, along a farmer's access track and into some woodland atop the main ridge between Bo'ness and Linlithgow. It gets me off the main roads and is picturesque so I tie it in to many of the routes I take but in mid-April I found out I wasn't welcome. I was halfway through the wooded section when a large brown bird dropped over my head and perched just up ahead. It was a buzzard *Buteo buteo* and initially I took it for a lazy swoop while it moved away from the big, lumbering human. But it did it again as I ran past it! I kept my eye on it as it watched me, perched at the corner of the track where it heads downhill as an avenue between the fields. The buzzard took off again and followed me above the trees now, making a couple of fake dives before giving up.

Two weeks later I jogged down the trail with a friend and didn't think much of it. There was no sign of any grumpy birds of prey. About 3 weeks after that I came through on my own, now rationalising the encounter as a one off and determined not to be scared away by a one-time angry bird.

It came for me at the other end of the woods. First with a low swoop that was probably a warning. I tried to keep an eye on it, hoping it would perch and let me run away but it didn't land and it was hard to keep track of it now the trees had leafed out. An angry brown bird resolved itself out of the dappled sky but merely swooped again as I faced it. I picked up my pace hoping to get out of its territory, glancing over my shoulder, over and over. There! I turned, shouted and waved my arms. It put the brakes on and I got an impressive close-up of a buzzard with wings and tail fully spread. It climbed again and this time some crows spotted it and started mugging it. I figured this might be my opportunity to make a break for it, turned and sprinted. Smack! It hit me in the back of my head. I cursed out loud and carried on running, trying to keep track of it. It climbed out of the trees, found a gap and rolled its wings in, stooping at me with incredible speed. I suddenly felt a lot of empathy for the various small, fluffy animals that buzzards feed on. I ducked into a crouch at the last second and it passed over me. I was nearing the open ground again and presumably that would take me away from wherever its nest might be. I kept running, shouting and waving my arms like a madman; as long as I faced it, the attacks seemed far more half-hearted. It followed me for a short distance along the avenue and then at some point turned away.

Final damage report: a cut on my scalp and, given my thick skull, probably some blunted talons for the buzzard.

Moral of the story: Don't be a stubborn idiot like me. When a buzzard swoops near you, you're probably near its nest. Go back the way you came if you can. This one at least was happy to attack over quite a large area so you may not be able to simply pass through quickly.

Rob Wallace

Please remember the Journal when
unexpected or exciting occurrences happen
whilst out and about.

An encounter with nature often tells us about
the behaviour of particular organisms.

Many of this year's authors have commented
on interactions between species; these little
insights help to expand our knowledge.

