



## SWT Aberdeen Newsletter Spring Summer 2021



<http://www.swtaberdeen.org.uk/>

### Chairman's Message – Roger Owen

Well I really didn't think I would be writing this still in lockdown 6 months after my last newsletter message but here we are! But now there really is light at the end of this very long tunnel.

I would like to thank all of you for continuing to support your local group by attending the successful series of Zoom talks we have hosted over this long winter. We averaged around 70 participants from all over Scotland and some from even further afield. We have learned that online talks make them more available to members and non-members who don't happen to live in Aberdeen and we will consider how to maintain this accessibility into the future.

We greatly appreciate those that have donated too as that covered the costs of our Zoom licence. Your committee has continued to meet online and has put together a great programme of summer wildlife outings which you'll see in this newsletter.

We are looking forward to seeing you, in person!

**Roger Owen**

### Ladybirds at Red Moss of Netherley – Nick Littlewood – [nicklittlewood@sruc.ac.uk](mailto:nicklittlewood@sruc.ac.uk)

Ladybirds are probably the most popular groups of beetles among biological recorders. Although some species can be quite variable in appearance, they can usually be identified in their adult stage, in the field or from photos, based on the marking across their elytra (the hardened wing cases covering most of the body) or pronotum (the widened collar behind the head). Most UK species spend the majority of the year as an adult, and complete their immature stages over a few short weeks of summer.

Most UK Ladybirds are predatory, feeding on small invertebrates, such as aphids. A few feed on other matter, such as fungi. The most widespread species, the 7-spot Ladybird can be found in a wide range of habitats from grasslands to woodland, though most others show some degree of habitat specialism. They can sometimes be found by careful searching by eye, especially in warm weather when they may be more active. However, greater numbers will be recorded by sweep-netting of low vegetation or tapping tree branches to dislodge them onto a tray or stretched-out sheet held below. Using a combination of these methods, six Ladybird species have been found on SWT's Red Moss of Netherley reserve over recent years. These are pictured below, with photos taken by the author, except that of Striped Ladybird, which is used here with kind permission of Warren Maguire:

**Larch Ladybird** (Right) – one of the less conspicuous species, usually associated with conifers, with the Netherley records coming from pines as well as larches.



**10-spot Ladybird** (Left) – a small and highly variable species, found on a range of trees and herbaceous plants.

**Cream-spot Ladybird (Right)** – a distinctive species, found on a range of trees, with most Netherley records being from birches.



**Hieroglyphic ladybird (Left)** – a variable species that is a specialist of heather-dominated habitats. It is quite localised in terms of UK records. Several were found by sweep-netting in 2020 and were the first records for Kincardineshire.

**Striped Ladybird (Right)**– a large ladybird that is strongly associated with pine - (Photo: Warren Maguire)



**7-spot Ladybird** – the classic ladybird that is found (almost) everywhere.

For more information about UK ladybirds, see: <https://www.coleoptera.org.uk/coccinellidae/home>

### **RSPB Nature of Scotland Awards, Nature and Climate Action 2020 Working Wetlands**

Aberdeen City Council has won the RSPB Nature of Scotland Award, Nature and Climate Action 2020 category for the work over the last five or more years to develop sustainable methods for adapting sites to improve areas for biodiversity, reduce flood risk and increase public accessibility. It shows the Council's commitment to working with nature rather than against it. These projects have included bringing burns back to the surface rather than in underground pipes, restoring previously over engineered watercourses back to a more natural course and cross section and creating wetlands that flood to a greater or lesser extent depending on the rainfall amounts. These all help to manage the surface water in a more natural manner and create some great new habitats for wildlife.

The most recent of these projects has been in the Denburn Valley around the Den of Maidencraig Local Nature Reserve where a low bund was constructed across the valley floor. In times of low rainfall the burn flows through the area and passes under the path from one side of the valley to the other in an engineered channel that controls how much water can flow. If there is more water then it will back up behind the bund creating a larger pool. The water will gradually flow away downstream once the heavy rain has passed. This means that flooding further downstream, and particularly in the city centre, is avoided. Previously flooding in the city centre has damaged properties and businesses but allowing upstream wetland areas to flood reduces impact on these and does not impact on roads or other infrastructure.



The wetlands created are great for many birds to feed at. Herons and ducks move in when the area floods and the boggy ground is a great habitat for snipe, jack snipe and sometimes woodcock to feed in.

As part of the Maidencraig project a new pond dipping platform has been built in the nature reserve, an artificial sand martin nesting wall built and new interpretation panels are about to be installed. A wetland wildflower mix is going to be sown in early summer too. The bund creates a new path linking the new housing developments off the Langstracht to the Den of Maidencraig Local Nature Reserve, Skene Road and Hazlehead Park and Woods for everyone to enjoy.



There are more of this type of project planned for the future too as we continue to manage our greenspace areas to reduce and mitigate the challenges of climate change.

**Ian Talboys**

## Climate change impacts on the biology of Scottish rivers and lochs

Scottish rivers and lochs are some of our most wonderful natural assets and I've been lucky enough to spend all my career helping to look after them. They provide us with many benefits such as clean drinking water, game fishing, an abundance of spectacular wildlife, sport and recreational opportunities and are of inestimable value to human health and well-being. Our freshwaters do already have many pressures upon them, including physical modification for flood defence and hydro-power, diffuse agricultural run-off, abstraction for agriculture and water supply, industrial wastewater and the spread of invasive species. However, about 67% of our rivers and lochs meet the standards required for good ecological status or better as required by the EU Water Framework Directive (WFD), making our waters some of the cleanest in Europe. The WFD standards have been adopted through the Water Environment and Water Services Act ( 2003) into Scottish domestic legislation and is here to stay, Brexit notwithstanding. The Scottish Government and Scottish Environment Protection Agency (SEPA) aim is for 97% of surface waters to reach good status or better by 2027.

But what about the likely impact of climate change? The headlines in the press are already proclaiming that we could lose our wild salmon in the next 15 years due to rising water temperatures. I thought I should give my opinion on the likely added pressure of climate change on freshwater biology.

Current best models, such as UKCP18 (UK Meteorological Office, 2018) predict, with the most likely scenario of carbon emissions, that summer temperatures in the UK are likely to increase by upto 5C by 2070. In Scotland predictions vary between 0.4 to 4.8C depending on emissions scenarios and the sensitivity of the river to warming but the highest temperatures have a high risk of being achieved. There is a very strong link between ambient air temperature and shallow surface water temperatures so we can assume a similar prediction of warming of rivers and the upper layer of lochs. What would be the impact of that degree of warming?

Let's take Scotland's best known river inhabitants, salmon and trout. Research has shown that the lethal (17 hours of exposure) maximum temperature limit for Atlantic Salmon is 29.0C and for Brown Trout it is 26.7C. Over 32C for salmon or over 29C for trout could kill them in only 10 minutes. So a hot summer day where these temperatures are reached in our rivers might well prove lethal for these species. The hottest temperatures in our rivers in recent history are shown by Marine Scotland's NMPI maps (<https://www.spatialdata.gov.scot/geonetwork/srv/eng/catalog.search#/map>). These show that daily maximum temperatures of 24 – 28 C have already been reached. Add on the potential 4.8C increase on the hottest days predicted in the next few decades and we can see the headlines are right for some of our rivers!



**Stonefly-Nymph**

Rivers and lochs have food chains that include many species of invertebrates, such as insect larvae, molluscs, shrimps, worms and leeches. These small animals are vital components of river ecology and include species we value highly for biodiversity value, such as the Freshwater Pearl Mussel. Research work in similar rivers and streams in upland Wales has shown that for every 1.0C rise in temperature there was a 21% loss of species abundance of invertebrates and a 3C rise led to local extinctions of some species. This seems a potentially severe impact on freshwater ecology. In practice, it is likely that warm water tolerant species will begin to replace the cold loving invertebrates we find in our northern rivers such as stoneflies, some mayflies and the rare freshwater pearl mussel unless we can somehow ameliorate this warming trend.

Rising temperatures are not the only consequence of climate change. It is also likely that increasing floods and stormwater run-off events will carry a lot more fertiliser-rich soils from agricultural land. Models do indeed predict increasing erosional events in Scotland. Algal blooms in lochs are a huge acceleration in growth of algal cells often caused by fertiliser run-off and occur mostly in the warmer months. Some of these blooms are of blue-green algae, cyanobacteria, many of which are toxic to fish, dogs and people. It is likely that climate change will see an increase in such blooms in many of our lochs.

Scotland already has a problem with freshwater associated alien invasive plants, such as Giant Hogweed, Japanese Knotweed, Skunk Cabbage and Himalayan Balsam as well as alien invasive animals such as American Signal Crayfish, Zebra Mussel and American Mink. The success of these alien plants and animals is down to their phenomenal opportunistic colonisation abilities under a wide range of environmental conditions. As climate change begins to restrict the ranges of our native riverbank plants and they suffer from flood events the alien species are likely to become ever more dominant unless controlled. This will further impact our native biodiversity, lead to riverbank instability and restrict access for sport and recreation. Controlling invasive species is already calculated to cost the UK economy some £1.8Billion per year.

The impacts of a changing climate on Scottish freshwater biology is very likely to be highly significant in the next few decades but can we do anything about it? Mitigation measures, that help us to combat these impacts, can include hard engineering of flood defences to more natural methods to help our rivers and lochs become more resilient. Natural Flood Management encompasses a wide range of interventions such as river re-meandering, re-establishment of floodplain wetlands, buffer strips of uncultivated land or woodland, re-wetting upland peatlands and preventing floodplain development. All of this protects against flooding and increases the diversity of physical features that allows a river to have many different habitats for indigenous wildlife. The Beltie Burn, a tributary of the Dee, is a great example of this kind of river restoration.

One of the most cost-effective mitigation measures, in my opinion and that of an increasing number of river managers, is to establish bankside trees and woodlands where these are sparse. This sparsity is the case in very many of our rivers in Scotland and it makes them very sensitive to increasing temperatures due to lack of shading. Forest Research carried out work in the New Forest which demonstrated really well how, on a hot day, shaded pools lowered the temperature of the water by about 5C compared to unshaded pools. This is around the same temperature difference as the potential uplift predicted by climate models.



**Volunteers planting riverbank trees on Deeside**

So we can do things to combat the worst effects of climate change but it needs many people to come together to do this at big scales: scientists, river managers, fisheries bodies, communities of volunteers, local authorities, agencies and government. I am hopeful that this is beginning to happen but it cannot come too soon.  
**Roger Owen**

### **Saving Scotland's Wildlife: How You Can Help**

In Scotland we have some of the best scenery in the world and I'm sure, like me, you probably take huge pleasure in the beautiful landscapes and fantastic wildlife you see on your walks. Many of us have had this brought into even sharper focus during the lockdowns. But there's no doubt that wildlife is under serious threat everywhere, and that includes the UK. There are very worrying declines in many animals and plants in Scotland. The State of Nature Scotland 2019 report shows from 1994 to 2016, 49% of Scottish species have decreased due mainly to farming, climate change, the spread of urban areas, upland management and pollution problems. See more [here](#). Climate warming alone is already causing enormous change with increased major flooding, soil loss, river temperatures approaching lethal limits for fish, squeezed ranges of native plants, as well as the advance of alien species of plants and animals.

This all sounds pretty bad but we can all help to stem this loss of wildlife. How? By taking part in citizen science projects. These are projects that are helping wildlife recover or are collecting information in order to better protect it. Although the term "citizen science" may sound awfully technical, I can assure you it is nothing of the sort and they are a lot of fun to take part in.



What's on offer out there? Of course, SWT have some interesting projects to get involved in recording observations of beavers and red squirrels as well as pointing you to other useful projects at [SWT citizen science](#). Or how about helping NatureScot to find out where all our remaining wildflower meadows are? They are becoming very scarce but are so important for our bees and other pollinators. You can help by recording where you see some indicator wild flowers at [wildflower meadows](#).

Trees and woodlands are important for many reasons in our landscape and the Woodland Trust is a great organisation to join if you are interested in helping to increase this wildlife habitat. Knowing where our most ancient trees are and recording new ones interests me greatly as they are such magnificent real-life Ents. You can learn how to identify and record them here: [Ancient Trees](#). If you like exploring our magnificent coasts you'll undoubtedly run into a lot of marine wildlife and the Marine Conservation Society would love to hear about what you've seen from jellyfish to basking sharks. You can tell them at: [marine sightings](#). If you interested in just



**Ancient Tree Glenmore Forest, Strathspey/Cairngorm**

about everything, and happy to send in wildlife reports on anything you see, the Biological Record Centres in Scotland would dearly love to hear from you! This is especially because enthusiasts are often wonderful observers. So you can send these wildlife reports in at: [Biological Record Centres](#) or you can use [iRecord](#) to see your own records on maps.



Do you know any youngsters that you'd love to see getting interested in the environment and outdoor activities? Here's a great idea from Keep Scotland Beautiful for encouraging them with their own [Pop-up Garden](#)

You may be a mobile app fiend – I know I am! There are a whole lot of apps you can download onto your phone that help you identify wildlife and become a citizen scientist. A fantastic app I use a lot is [Seek](#) from iNaturalist. It identifies almost anything you can photograph right there on your phone! But there are so many other useful free apps that cover everything from bees to blooms of algae that researchers want to hear about from you. A good place to see them is at the Scottish Environment website's [Citizen Science Portal mobile apps](#).

Thinking about climate change impacts on people for a minute you might also be interested in joining the network of volunteers that monitors rainfall in their back gardens and contribute to the UK weather forecasting models – really important stuff and you can join at [rainfall observers network](#). Or you could join a local community flood group in your area if you want to do something very useful and very much appreciated: [community flood groups](#).

I'm sure you'll agree that there's a lot you can do while you're enjoying your outdoor adventures in Scotland as a citizen scientist to help protect Scotland's wildlife. Certainly there a lot of projects out there would dearly like to hear from you!

**Roger Owen**

### **Nature of Scotland 2020 Lifetime Achievement Award - Mark Young**

Hearty congratulations to local SWT member Dr Mark Young for his Lifetime Achievement Award. Mark is known to many of us as a former Chair of our SWT Branch (as Local Groups were once called), expert lepidopterist, and highly regarded educator and researcher at University of Aberdeen. Perhaps less well-known are his many national contributions which form the central paragraph of his award citation.



"Mark's activities have had real conservation impact. He has played an active role on the Scottish Government's Advisory Committee on SSSI's (1998-2008) and Biodiversity Science Group (Chairman, Biodiversity Lists Sub-Committee 1996 – 2010). He sat on the North Board of SEPA (1996 – 2002) and was a Council Member of Scottish Wildlife Trust 1978-1985; 1990-1997 (Chairman, Nature Reserves Committee 1990 – 1997). Mark has also been instrumental in recognising the imminent extinction threat of the UK's sole remaining population of New Forest Burnet moth, in Argyll."

Most impressive, but with much of relevance to us left unstated here and in the citation as a whole, including: his work in securing and managing our SWT Gight Wood nature reserve; his collaboration with Grampian Regional Council (continuing with Aberdeenshire Council) to identify and protect through the planning system some of our most valuable wildlife sites (initially called Sites of Interest to Natural Science, now Local Nature Conservation Sites); and his expert representations made to protect threatened sites, most recently with the successful defence of the nationally important Coul Links against the damaging construction of a golf course.

The citation ends with the following statement, to which nothing needs adding: "Mark is an inspiration through the commitment that he shows to the study and conservation of the natural world but even more than that, his collaboration and people skills enable him to achieve so much more."

Editorial

**Moth Quiz – Steve Watt**

Below are pictures of 5 UK moths. Match the moth picture with one of the options listed below.

Look out for the answers on the Aberdeen and Aberdeenshire SWT Website and FaceBook page shortly!



(a)



(b)



(c)



(d)



(e)

Options:

1. Emperor Moth
2. Small Phoenix Moth
3. Barred Yellow Moth
4. Fox Moth
5. Clouded Border Moth

**St Fittick’s Park: a Nature Reserve or an Industrial Energy Transition Zone?**

Hunter and Susan Smith ([Friends of St Fittick’s Park](#))

You could be forgiven for not knowing about Aberdeen’s award-winning wetland and reedbeds in the south of the city. Squashed between Industrial land, sewage works and one of the most deprived communities in

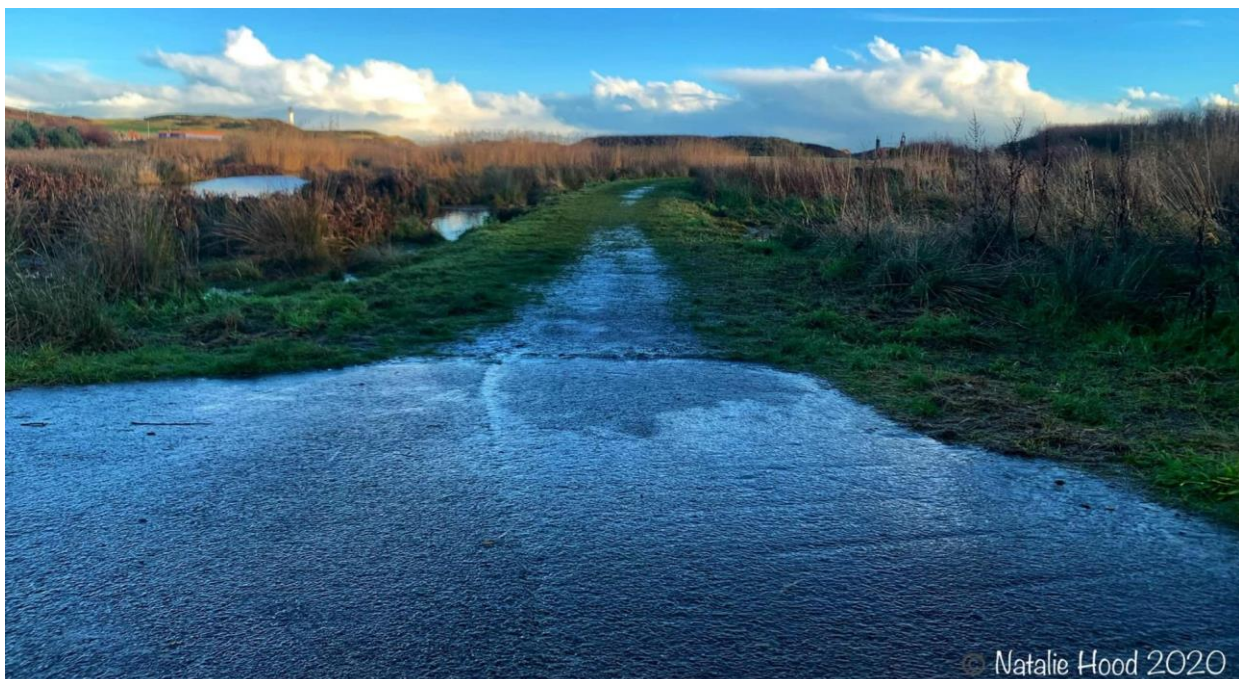
Scotland, St Fittick's Park is a (now threatened) brainchild of the Scottish Environment Protection Agency (SEPA) as a way of making space for biodiversity and for protecting the local people.

The park is a relatively small urban green space right next to Torry; a community whose eastern section bordering onto the park is one of the 10 most deprived in Scotland. Being the only accessible greenspace to this vulnerable area (which is predominantly tower blocks and flats), the park is the community's garden and its little piece of wild land, much loved and much used. It benefits people in Torry in all the ways that have become so obvious to all of us over the past year, providing relief and access to nature – particularly as the disproportionate effects of COVID on the poor have taken such a toll.

In stark contrast to the grey, cold heavy industry surrounding it, the park is a vibrant, varied place with a range of habitats to serve the local people. There are, of course, areas of traditional park, with fields of cut grass and play areas for children, a skate park, and paths for people to walk and cycle on. Outside these usual areas though, is where St Fittick's really shines. It boasts areas of woodland, wet meadow, reedbed and diverse dry grasslands. As you can imagine from such a range of habitats - the biodiversity supported is immense. Over 40 species of bird breed in its grounds annually, including nine red list species and eight amber, at *least* 116 plant species including a wonderful array of orchids, and hundreds of invertebrate species that are still being documented. Otter can also be found hunting through the reeds!

In terms of numbers of species supported – there really isn't anywhere else like it in the city of Aberdeen. In autumn months the site serves as a vital stopover point for tens of thousands of migratory birds (over the migration period – not all at once!), dragonflies, and moths. Long and short eared owls pass through the area regularly for several months, and over winter St Fittick's supports a substantial snipe population. The hard work put in by Aberdeen Ranger service and SEPA have really paid off – the burn is a richly diverse, and now award-winning wetland. The latest award is as winner of the Biodiversity and Climate Change category in the RSPB's Nature Scot awards 2020.

Whilst this area of the city has always been a wetland, the quality of the area hasn't always been as high. In 2010 Aberdeen City Council's Open Spaces audit identified severe heavy metal pollution in the straightened East Tullos burn flowing through the Park on its way from the East Tullos industrial estate (just west of where the park is) to the Bay of Nigg – and out to sea. With frequent flooding, low biodiversity, heavy pollution, and poor access. Aberdeen city council (ACC) and SEPA instigated a programme of improvements: community tree planting, returning East Tullos Burn to its original meandering course, creating reedbeds to reduce flooding and as a natural urban draining system to protect local people from the heavy metal contaminants, by soaking up the pollution. This project involved heavy groundwork and £364,000 of public money.





By this stage, you be thinking “well this is fantastic! Why am I only hearing about this now?”. Well, tragically, this area is now under the looming threat of industrial development as an opportunity site in the City’s Proposed Local Development Plan. Being sandwiched between the largest marine construction project in the UK immediately to the east, a sewage works, two industrial estates in much need of regeneration and an incinerator, the future is alarmingly uncertain for this vital community greenspace.

Upon finding out the threat, we commissioned an ecological report, which found that there is nowhere with higher biodiversity than the park anywhere in Aberdeen. The wildness of much of the wetlands and rough grass, what can be seen there, amazes first time visitors to it from other parts of the city and from Aberdeenshire. “How can there be a piece of such wild land in the city, sandwiched as it is between a struggling community and industry? Deer run across it! How crazy is that?” asked one first timer. Given the quality of the biodiversity - not at all!



What is crazy is one future for St Fittick’s Park that is the ‘settled will of the council’ that once created it. The park has been rezoned from green belt to a development site for industrial use as part of what has been described by its proponents as the City’s Energy Transition Zone, in the vicinity of the new South Harbour. For wind turbine manufacture, a wind turbine parts assembly area and decommissioning. When there are alternative brown field sites available at East Tullos and Altens – less than 1km away and with rail and road access – it is very alarming such a critical area to both people and wildlife is under such threat.



The rationale for the development itself is dubious, and why Aberdeen Harbour Board, Opportunity North East and ACC want to destroy this area is another story. But another future is possible, which we are fighting hard to achieve. By safeguarding what we have now and joining with people in Torry, we can make an alternative vision for St Fittick's. Outdoor teaching, engagement for families, vulnerable groups and children with the wildlife of the park act only as a fraction of the ways we want to utilise this space for people and wildlife and to improve its biodiversity even more.

It has been less than ten years since the wetlands were created and St Fittick's already has the highest biodiversity in the city. Our ecologist considers St Fittick's Park already has the quality of a local nature reserve and even as an 'early career SSSI, and to lose it for speculative economic gain would be a catastrophic loss for the local people, and is a tragedy we had thought the city would have avoided.

### Walks for Spring and Summer 2020

Outdoor meetings venues as noted - **Booking Essential**. To book on the walks please contact [bookings@swtaberdeen.org](mailto:bookings@swtaberdeen.org). To check details of the Talks please contact Kirsten Dickson 07885 720267. **Please check SWTAberdeen.org.uk or our Facebook page (AberdeenandAberdeenshireScottishWildlifeTrust) for latest information and if the Walks are going ahead.**

**Sunday 23<sup>rd</sup> May 10:00 – 12:00**

**Crathes Castle guided walk. The Wild Garden.** As the growing season really takes off, join the ranger for a walk round Crathes discovering some of the history and ecology of the area. Find out more about the management and some of the pressures on wildlife in one of the most biodiverse areas in the region. Family Friendly (over 8), no dogs. Free (donations welcome).

**Saturday 26<sup>th</sup> June 09:45 – 16:00**

**Botanical Outing to Dinnet/Muir of Dinnet**

Join us as we walk to and round Loch Kinord looking at plants in a range of habitats along the way. Bring your wellies if you wish to explore the margins of the loch. Family Friendly (over 8), no dogs. Free (donations welcome).

**July (date and time TBC)**

**Ury Riverside walk with Douglas Gooday**

Doug Gooday leads us through the wildflower meadows, wetlands and newly planted native woodland of Uryside park.

Family Friendly (over 8), no dogs. Free (donations welcome).

**Saturday 7<sup>th</sup> August (time TBC)**

**The Moths and Bats of Red Moss – Red Moss of Netherley.**

We will start at 8:45pm and walk to the edge of the moss, looking for bats and use detectors, as well as seeing which moths come to a UV light.

Family Friendly (over 8), no dogs. Free (donations welcome).

**September (date and time TBC)**

**Fungal Foray with Grampian Fungi Group – Inverurie**

Details TBC.

Family Friendly (over 8), no dogs. Free (donations welcome).

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