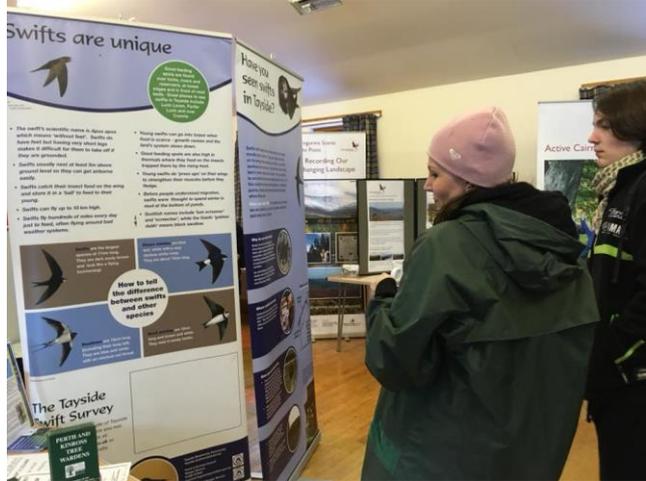




TAYSIDE RECORDERS' BULLETIN 2018





Contents

| | |
|---|----|
| The 11 th Annual Tayside Recorders' Day..... | 3 |
| Citizen Science on the Coast | 3 |
| National Orchard Inventory for Scotland..... | 4 |
| Tayside Barn Owls..... | 4 |
| Invertebrate Surveys on Sites of Special Scientific Interest (SSSIs) in Tayside 2011-2017 | 6 |
| National Moth Atlas Update | 8 |
| The 2017 Sidlaws Northern Brown Argus Survey | 9 |
| Urban Butterfly Project..... | 10 |
| Small Blue Butterflies..... | 10 |
| The SBIF Review of the Biological Recording Infrastructure in Scotland | 11 |
| Sustrans Greener Greenways Project | 12 |
| A Few Events in 2018 | 13 |
| Bee Walk Season starts soon - Register Now! | 14 |
| Tayside Geodiversity | 14 |
| Dundee Museums and Art Galleries | 15 |
| Angus Museums..... | 15 |
| Perth Museum & Art Gallery | 15 |
| Saving Scotland's Red Squirrels | 16 |
| Record Breaking Increase in Corn Bunting Numbers..... | 17 |
| Sustainable Urban Drainage | 18 |
| The Scottish Mammal Group | 19 |
| Stop The Plastic Tide!..... | 19 |
| The Pitlochry Swift Conservation Project | 20 |
| Tayside Biodiversity Partnership..... | 21 |

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The 11th Annual Tayside Recorders' Day

In keeping with the tradition of each Tayside Recorder's area hosting an event the Recorders' Days moves to Perth Museum and Art Gallery this year. Following on from last years' Recorders' Day at The Meffan, Forfar we have updates on a range of local - and national - subjects.

This year we'll hear updates on topics such as the National Moth Atlas, the 2017 Small Blue Butterfly survey and the East Haven Citizen Science project. We'll also hear of new items such as the newly-formed Scottish Mammal Group, The National Orchard Inventory, Changes in Distribution of Bird Species Across Scotland, and Invertebrate Surveys in Tayside.

Citizen Science on the Coast

Wendy Murray

Following the success of the Community BioBlitz in 2016, East Haven Together have continued to build on their work to create wildlife records and learn more about the natural heritage of the coastal village. Over 1,000 records have now been uploaded to iRecord and over 500 different species have been identified.

In February this year, residents visited Woodlands Primary school and delivered a wildlife presentation to update the children about various species which have been recorded locally. The children helped to identify marine species during a rock pooling session at the BioBlitz and this was an important learning event as it engaged their interest and understanding about why wildlife records are important.



©Wendy Murray

A further presentation will be delivered in April to raise awareness about the Small Blue butterfly and the children will have the opportunity to create some bunting to celebrate the 2nd Scottish Small Blue Week.

Residents have now secured funding to remove invasive species from the SSSI which were identified during the 2016 BioBlitz. Residents were concerned that removal of the large Snowberry might undermine the fragile dune system, creating a risk of erosion. A mix of native coastal grasses will be planted in the autumn to assist the dunes to recover naturally.

Another BioBlitz is now being planned to coincide with National Ocean's Day on 8th June; it will include a Co-Coast Survey. Everyone is welcome to go along between 10am and 4pm. There will be a BBQ at 12 noon at the Bothy. All wildlife data will be uploaded to iRecord. For further info visit: <http://www.easthavenangus.com/410664251>



National Orchard Inventory for Scotland

Area Report for Perth and Kinross; Summary

Dr Crispin W. Hayes, Crispin Hayes Associates

The National Orchard Inventory for Scotland Project is creating a comprehensive orchard inventory for the nation. This has probably not been attempted for over a century, perhaps since the 1885 Congress. The Orchard Inventory will form the basis for addressing a number of issues linked to the decline of orchards over the last four decades and create a strong foundation for their revival. Simply put, we need to know what's where in order to change the downward trajectory.

The project began in 2013 with a pilot study which since then has received funding support from Scottish Natural Heritage. The programme has grown since then to add further phases so that more than half of Scotland's orchards have now been surveyed and recorded. The national project is reported separately, and is available at the project website www.scotlandthefruit.org.uk.



© C A G Lloyd

In Perth and Kinross a total of 220 orchard sites have been surveyed; of these 185 were found to be intact. Over 64.2ha of orchards remain with the average area of each orchard being 0.38 ha. The survey showed that a relatively small area of orchards has been lost, and this has been more than offset by newer orchards. However the lost orchards are the larger mature ones that had high cultural and biodiversity value. Most of the orchards contain less than 30 trees and are in a domestic setting. Five larger orchards of commercial size have been recorded. Though apple trees dominate, most orchards contain a diverse mixture of fruit species, reflecting their domestic use. The tree stock contains trees of all age ranges and veteran tree features indicate the orchards contain high levels of biodiversity. The majority of orchards have some

active management, and this is at a higher rate than typically found elsewhere in Scotland. Many orchards also have new plantings and younger trees, and this shows orchard renewal is occurring. Soft fruit and also vegetables are grown in a significant minority of orchards which is at a higher level than most of Scotland. Most fruit is used for family and friends, but some is sold commercially with the rest left to waste. Livestock is grazed in minority of orchards, these mainly being sheep and horses. Unfortunately most of the historic large mature orchards that the area was formerly known for are still in decline.

Tayside Barn Owls

Catherine Lloyd

There has been a specific focus on increasing the Tayside Barn Owl population since the launch of the first Tayside Biodiversity Action Plan in 2002. Our first project, funded by SNH, identified suitable habitat for the birds and looked for signs of their presence along the Tay corridor, around Glen Errochty and in lowland Angus.



©Paul Holme Strays

Just over ten years ago, the Tayside Biodiversity Partnership, along with three other Biodiversity Partnerships in Fife, Clackmannanshire and Stirling, secured Scottish Government funding for the highly successful BOOLS Project (Barn Owls of Lowland Scotland), one of the first cross-boundary biodiversity projects in Scotland. This led to the Upland Angus Barn Owl Project, funded by the Cairngorms Local Biodiversity Partnership Grant Scheme, and then the three-phase SITA TBAF and Angus Environment Trust-funded Angus Barn Owl Project. And finally, with Tay Landscape Partnership monies, another project, Buildings for Biodiversity, has recently included the provision of Barn Owl nestboxes across the Carse of Gowrie and beyond.

Throughout this time a Tayside Barn Owl distribution map has been maintained. Our post-grad student intern, Edward Dillon, is now updating this and the Recorders' Day will see the official re-launch of the Tayside Barn Owl survey. Although we have been successful in improving numbers down the years, harsh winters such as the 2010 winter, have decimated the population so we suspect we are maintaining, rather than increasing, this charismatic bird's population.

If you have any sightings – current or going back to c2000 – please upload the details online - <http://www.taysidebiodiversity.co.uk/tayside-biodiversity-surveys/tayside-biodiversity-survey-barn-owls/> - or complete the Barn Owl survey postcard. This will help us plan future projects across the area which will involve management plans, provision of nest boxes and monitoring by licence-holders.



Invertebrate Surveys on Sites of Special Scientific Interest (SSSIs) in Tayside 2011-2017

Chris Cathrine

In Scotland, 98% of all known terrestrial species (including the total number of animals and plants) are invertebrates. There are 158 Sites of Special Scientific Interest (SSSIs) designated to provide protection for important invertebrate features. These features must be monitored and assessed at least once every six years. Site Condition Monitoring surveys aim to assess habitat quality, and may also confirm presence of target species. Caledonian Conservation Ltd has completed Site Condition Monitoring of invertebrate features for 56 SSSIs in Scotland between 2011 and 2017 under contract to Scottish Natural Heritage (SNH). Of these SSSIs, five were located in Tayside: Barry Links (2011), Black Wood of Rannoch (2013), Den of Airlie (2015), Dollar Glen (2013), and Methven Woods (2015). As surveys targeted a wide range of invertebrates, which varied between sites, a number of different survey methods were employed including hand searches, sweep netting, pitfall traps, bark traps and vacuum sampling. An overview of results for each site is provided below.

The target features at Barry Links (Barry Buddon Ministry of Defence training range) included Lepidoptera (Small blue [*Cupido minimus*] UK BAP), Araneae (Northern mesh-weaver [*Dictyna major*] Red Data Book [RDB] 2), and Coleoptera (*Sphaerites glabratus* [a false clown beetle] RDB3). Only Small blue was confirmed to still be present, with eggs found at several locations. Twenty nine species of spiders (five of which are local) and 22 species of beetles were recorded, and indicate good quality dune habitat, although the biological strandline that the northern mesh-weaver requires was largely absent.



Lichen running spider (*Philodromus margaritatus*), Blackwood of Rannoch SSSI. © Glenn Norris / Caledonian Conservation Ltd

The Black Wood of Rannoch is designated for its invertebrate assemblage, although this feature was poorly defined. Surveys targeted Araneae (several RDB and Scottish Biodiversity List [SBL] associated with Caledonian forest), Coleoptera (several RDB species associated with dead wood) and Lepidoptera (three species of moth, listed as RDB and included on SBL). Fifty nine species of spider were recorded, including the Caledonian sac spider (*Clubiona subsultans* RDB2 SBL) associated with



the invertebrate assemblage feature, as well as the Lichen running-spider (*Philodromus margaritatus* SBL) (Photo 1). Although 33 species of beetle were recorded, none of those associated with the feature were found. A Nationally Scarce (NS) ground beetle (*Trechus rubens*) and SBL hydrophilid beetle (*Megasternum concinuum*) were both recorded. No rare Lepidoptera were found, and encroachment of bracken was thought likely to be limiting habitat suitability for a range of invertebrates in some parts of the site.

Dollar Glen is designated for *Stenus glacialis* (RDBK), a rare montane rove beetle. This species is normally found above 700m elevation, where it feeds on springtails (Collembola). It is thought that the topography of King's Seat Hill allows snow to be retained longer, providing a cooler microclimate which may allow this species to occur at unusually low elevations at this site. Although this species was not found during surveys, the site supported other springtail predators such as the ground beetle *Notiophilus biguttatus* indicating that prey remains available for *Stenus glacialis*. The rare montane ground beetle *Patrobis septentrionis* (NS) was also found.



(Left) Lemon slug (*Malacolimax tenellus*), Den of Airlie SSSI. © Chris Cathrine / Caledonian Conservation Ltd

(Right) *Palloptera laetabilis* from Den of Airlie SSSI. © Steven Falk / www.stevenfalk.co.uk

Den of Airlie offers excellent mixed woodland habitat in a steep valley alongside the River Isla and its tributary, the Melgam Water. The site is designated for its invertebrate assemblage feature which includes the Flat bark beetle *Dendrophagus crenatus* (NS), Northern yellow splinter crane fly (*Lipsothrix errans* NS SBL) and Lemon slug (*Malacolimax tenellus*) (Photo 2). Only the Lemon slug, which feeds on fungal fruiting bodies, was re-found. Eight species of common deadwood beetles were recorded. However, 107 species of fly were found, including the Flutter-wing fly *Palloptera laetabilis* (RDB2) (Photo 3), new to Scotland, which was last recorded in the UK in 1907, and previously thought to be extinct (Falk, 2017). Although the target crane fly was not recorded, other notable species found included the Muscid fly *Mydaea deserta* (NS) and the crane fly *Tipula laetabilis* (RDB2 SBL) known from only six sites in Britain.



The broadleaf woodland at Methven Woods is notified for its invertebrate assemblage, including Coleoptera (associated with deadwood) and seven rare species of Diptera (RDB, SBL and NS species). 34 species of beetle were found, including six associated with deadwood, as well as the SBL hydrophilid beetle *Megasternum concinuum* which was collected in leaf litter throughout the site. Although the target flies were not found, 189 species were recorded, four of which are Nationally Scarce (*Calliphora loewi*, *Mydaea deserta*, *Thricops sudeticus* and *Tetanocera phyllophora*). In addition, the crane fly *Tipula laetabilis* (RDB2 SBL) was also found – this species, known from just six sites in Britain, was also recorded at Den of Airlie, suggesting that Perthshire may be a stronghold for this rare fly.

All invertebrate records collected by Caledonian Conservation Ltd during Site Condition Monitoring are available at full resolution on NBN Atlas. Full details of survey methods and results can be found in the relevant Site Condition Monitoring reports (Kirkland *et al.* 2012; Cathrine *et al.* 2015; Cathrine *et al.* 2017).

These five sites demonstrate the diversity of excellent habitats available within Tayside, which support a range of invertebrate species. The discovery of a number of rare species, including a fly previously thought to be extinct in Britain, show that exciting finds can still be made when surveying under-recorded groups such as invertebrates.

For more info contact: E-mail: chris.cathrine@caledonianconservation.co.uk

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National Moth Atlas Update

David Lampard

In 2007 Butterfly Conservation took over the National Moth Recording Scheme. Amongst the aims was to produce an up to date National Moth Atlas. A provisional atlas published in 2010 was the first in 30 years and the full atlas is planned to be published in 2018.

It became apparent that Angus was under-recorded, there were few active recorders and most recorded a small local area, usually around their gardens. There were few historic records in the National scheme.

A target was set that 50 species recorded in each 10k square would be the minimum required to “cover” the square. Unfortunately in Angus only 19 squares out of 37 had 50 or fewer records with several having no records at all.

We tried a number of methods to increase the numbers of squares recorded. This included taking part in bioblitzes and other recording events and recording in as many 10K squares as possible. Eventually we decided there were not enough recorders to cover the whole county, so we concentrated on recording over 50 species in a wide a range of habitats as possible.

Angus was fortunate with the addition of Paul Brooks as a recorder who quickly become the most active (and mobile) recorder. Paul has also managed to find and talk to previously unknown moth trappers and add their records to the scheme.



Finally last year we were fortunate to be able to carry out a survey of the moth collections in Dundee and Angus museums to extract historic information. At the moment we are just checking identifications that have been queried by the scheme organisers.

Over the last ten years the effort can be summarised as 220 records by 3 recorders in 2007 rising to 3,000 records by 19 recorders in 2016. In total 14,370 records have been made.

The 2017 Sidlaws Northern Brown Argus Survey

Cathy Caudwell

The Northern Brown Argus is a key species in the butterfly and moth section of the Tayside Local Biodiversity Action Plan for 2016-2026. The basic florally rich sites on which it depends are threatened principally by agricultural intensification, over-grazing, scrub invasion and tree planting. Over the last few years members of Butterfly Conservation have been re-surveying sites where the butterfly was recorded in the past but which had not been surveyed for a number of years. The presence of the food plant, Common Rock-rose, is key to the survival of the butterfly.

Members of the East Scotland Branch of Butterfly Conservation took part in a survey day for the Northern Brown Argus at Lundie Crags on 29th July 2017. We had previously visited this site for a survey on the 31st July 2016. The weather proved somewhat unco-operative (rather dull), and was not conducive to seeing the adult butterflies, which were not on the wing. However we were able to practice the identification of eggs and carried out replicate 3 minute egg counts at different locations along the crags. The results told us that numbers of eggs were extremely reduced compared with the same time last year. The mean count was about ten times lower in 2017 compared with 2016 - 0.6 rather than 6.0. This could be an indication of an early season of egg laying, or a poor season at the site generally.

At Lundie there was evidence of grazing of the Rock-rose by sheep but we were unsure whether this would have a long-term effect so the situation needs to be monitored further. Some grazing is good in order to keep the longer grasses down but excessive grazing will be to the detriment of the new growth on the Rock-rose and therefore the butterfly population.



©Cathy Caudwell

Good numbers of eggs and actual egg laying was seen at other Sidlaws sites on 14th and 17th July when mating and egg laying were seen. Eggs were present at one site on 14th July and good numbers of adults were on the wing at another on 17th July.

In addition to our egg survey, we had a great walk and spectacular views, passing by Ledcreeff Loch and recording a variety of moths and butterflies

including the Gold Spot, *Plusia* sp, Ruby Tiger pupa, Antler moths and Fritillaries.



We need to continue to extend targeted monitoring and survey work for the Northern Brown Argus. Help is welcomed with surveying individual sites, both in the Sidlaws and in other areas further north. A repeat survey for the NBA - and training if necessary - is planned for this summer. Further details and dates will be posted on the Butterfly Conservation website - or contact Cathy Caudwell on 01828 686709.

Urban Butterfly Project

Anthony McCluskey

This Butterfly Conservation project is coming to Tayside this year, with a series of events in both Perth and Dundee. Volunteers will learn how to identify and record butterflies from urban greenspaces, and help take action to make these greenspaces better for butterflies.

Three Butterfly Monitoring Scheme workshops will introduce the methods for recording butterflies along fixed routes called transects. This will be useful to Butterfly Conservation's understanding of population changes. Dates for the workshops are:

Saturday 24th March: North Muirton Hall, Perth

Tuesday 27th March: Dighty, Dundee

Wednesday 28th March: Dundee Law



©Anthony McCluskey

Both butterfly beginners and those with more experience are welcome. For information and booking please contact Urban Butterfly Project Officer Anthony McCluskey on amclluskey@butterfly-conservation.org, or phone 07730221266.

More events will be organised for May in Perth and Dundee – please get in touch if you'd like to be kept informed!

Small Blue Butterflies

Glyn Edwards

2017 saw a repeat of the 1994 Angus coastal survey for Small Blues and Kidney Vetch carried out by Meg Mearns. Whilst the overall survey showed a considerable decline in the number of butterflies and colonies along the coast between East Haven and Kinnabar there were some positives from the survey. Since 1994 there has been a 3-fold increase in the number of Kidney Vetch sites and a 5-fold increase in the number of Kidney Vetch plants. The butterfly was also recorded at 5 sites where it had not been seen for several years. These were Black Crag (last record 1994), Winyhills (last record 2008), Gaylet Pot (last record 2008), Auchmithie Gully (new 2016 record and last previous record 1994) and Elliot Sands (last record 2011).



©Glyn Edwards

These sightings suggest that the butterfly is more widely distributed than recent records indicated. It highlights the need to get more people out along the coast looking for this butterfly and sending in their results. The Small Blue is not the easiest butterfly to find but the effort is worthwhile when you see one. Thus the emphasis this year will be on getting people out to look for the butterfly and if you can help please contact glynedwards19@yahoo.com

We will be celebrating another Scottish Small Blue Week in 2018 - from 1st until 10th June. The launch will take place at Carnoustie Links on June 1st. More details will be published nearer the time but do try to come along. Carnoustie is one of the sites where you are virtually certain to see the butterfly - weather permitting. It is hoped other walks can be organised during that Week too. More Kidney Vetch will be planted to join the current Kidney Vetch site allowing the butterfly to move along the coast at will.

If you can get involved contact Catherine at the TBP or Glyn via glynedwards19@yahoo.com.

The SBIF Review of the Biological Recording Infrastructure in Scotland

Christine Johnston

In 2016 the Scottish Biodiversity Information Forum (SBIF) commenced a Review of the Biological Recording Infrastructure in Scotland. The purpose of the Review was to determine the optimum infrastructure for biological recording in Scotland, an infrastructure that in turn will attract the necessary belief, commitment and investment by stakeholders to be sustainable and successful in fulfilling the original vision of SBIF:

High quality species and habitat data will be collected and managed through a sustainable, co-ordinated and integrated local and national framework of organisations, partnerships and initiatives. These data will be available to ensure that Scotland's biodiversity, ecosystems and people benefit.

The Review aims to do this in such a way as to be cohesive across Scotland with support from all stakeholders and the willingness and energy to then make the transitions necessary to implement the new infrastructure by 2025.

A comprehensive evidence gathering stage finished at the end of 2017. Evidence of the need for improvements to the infrastructure was collected from interviews with 40 key individuals, and from a public questionnaire that generated 290 responses. This was followed by a series of four two-day workshops held in late 2017, at which participants built on the evidence generated via the interviews



and questionnaire in order to identify and evaluate options to co-create a design for an improved infrastructure.

A Business Case is now being prepared which will contain details of all the options we have considered, and our recommendations for change. This will be approved, in due course, by the SBIF Advisory Group and then submitted to the Scottish Government for consideration.

One key message heard consistently through the Review is that the status quo is not an option as it is neither sustainable nor delivering biodiversity data across the whole of Scotland. This message will be clearly articulated in the Business Case and as a result we hope to unlock suitable investment to enable us to transition towards a new and changed infrastructure.

All completed documents and papers associated with the Review, including our monthly Highlight Reports, and the workshop outputs, are available on the Scotland pages of the NBN at: <https://nbn.org.uk/about-us/where-we-are/in-scotland/the-sbif-review/>. The interview findings, questionnaire findings, and Business Case will be published on completion.

Further details are available from Christine Johnston, NBN Scottish Liaison Officer – tel. 07342254589; email c.johnston@nbn.org.uk.

Sustrans Greener Greenways Project

Katharine Melville

Sustrans is the charity responsible for setting up the National Cycle Network, which as the name suggests is a whole network of off-road byways and quiet country roads which enable cyclists, particularly leisure cyclists, to travel peacefully the length and breadth of the British Isles. So what's a cycling charity got to do with conservation and wildlife?

Some years ago it was realised that many off road cycle tracks offer the chance of a wildlife corridor, which with improved biodiversity measures could become really important. Greener Greenways was born with funding from Scottish Natural Heritage, a full time ecologist appointed and a whole range of training courses established.

In 2015 Greener Greenways came to Perth. A five mile stretch from the Smeaton Bridge to Almondbank was split into five sections, and Wildlife Champions recruited to record on each section. The Wildlife Champions take part in a number of courses and recording activities, from the RSPB's Great Garden Bird Watch to recording mosses, lichens and bryophytes. Bee Walk and UK Butterfly Monitoring Scheme transects were set up on two of the Perth sections, and also at Dunkeld with records submitted to iRecord. Over the past three years 816 records of 224 species have been submitted.

Since 2015 the broad group of Sustrans Rangers, Wildlife Champions, members of Sustrans staff and cycling friends have been removing the invasive non-native species Himalayan balsam.

In 2017 the group tried unsuccessfully to enlist help from other volunteer groups, but was lucky to recruit some assistance from Community Payback.



©Katharine Melville

So what of 2018? The local group will be out, perhaps twice a month for four months, but the schedule has yet to be finalised.

If you'd like to help, please contact Katharine Melville, Sustrans Volunteer Coordinator for Perth and Kinross. Email kmelville@ogoroad.com

A Few Events in 2018

- 1. Scottish Small Blue Butterfly Week (1st to 10th June):** such was the success of the first Small Blue Week, we are taking part in the second year's event. Led by Butterfly Conservation Scotland, Tayside's contribution to the week will include a launch of the Schools Champion project at Carnoustie Golf Centre on 1st June, and a survey training event along the coast. The Small Blue Interest Group meets annually to set the programme of action and anyone with an interest in the Angus Small Blue Project is welcome to join. Contact Glyn Edwards perthshirebutterflies@eastscotland-butterflies.org.uk for further details.
- 2. UK Swift Awareness Week (16th to 23rd June)** – throughout Britain, Swift groups, including our Tayside Swifts, are coming together to raise awareness about swifts. In Tayside there will be a number of walks and talks, so please check the TBP website, Tayside Biodiversity Facebook page or contact Daniele Muir direct for further details:
dmuir@taysideswifts.co.uk.



This year's focus on swift mapping will be primarily in and around Pitlochry and Blair Atholl. If you would like to be part of this project please contact Daniele to sign up for a Swift Map survey square. All swift sightings from across Tayside are welcome – please check the Swift pages of www.taysidebiodiversity.co.uk.

- 3. TayARG (Tayside Amphibians and Reptiles)** –to be kept in touch with volunteering opportunities for our Tayside Ponds Project, please contact taysideamphibians@yahoo.co.uk.
- 4. Angus Coastal Festival** – 7th to 17th September – another first, this will be a fairly small-scale event during 2018 with plans to enlarge the Festival in 2019 and 2020. Check the TBP website for the programme of events or contact caglloyd@pkc.gov.uk. This will include geodiversity walks, survey opportunities, beach cleans, library exhibitions and displays, as well as – we hope – film nights, book readings and artwork.



Bee Walk Season starts soon - Register Now!

Bumblebees are icons of the British summer, and they also contribute a huge amount to the British economy through pollinating crops. But they're in trouble.

Bumblebees are declining across the country (we've already lost two species), and to better understand the reasons why, we need data – lots of data – on where we can find the remaining bees, how many there are and what they're doing.

We can all help, with a Bee Walk!

This is the Bumblebee Conservation Trust's main survey scheme. BeeWalk involves volunteers walking a fixed route once a month between March and October and recording the bumblebees that they see. This helps to monitor population changes and detect early warning signs of population decline.

If you are interested in taking part, please visit: <https://www.bumblebeeconservation.org/surveys/> or sign up at www.beewalk.org.uk. E beewalk@bumblebeeconservation.org if you have any queries.

Tayside Geodiversity

Catherine Lloyd

New members are still being sought to join Tayside Geodiversity to contribute to the Tayside Geodiversity Action Plan, and where possible, to assist with fieldwork to prepare a number of Geodiversity Site Plans. Please contact David Lampard at david.lampard@leisureandculturedundee.com for further information.



At a larger scale, last November saw the publication of the revised Scottish Geodiversity Charter. The original document was first published in 2012, but this revision covers the years 2018-2023. It is so far supported by 80+ organisations, including Angus and Perth & Kinross Councils, Tayside Biodiversity Partnership and Tayside Geodiversity.

The Charter will encourage the promotion and management of Scotland's geodiversity, together with better integration of geodiversity into policy and guidance. It can be downloaded via <https://scottishgeodiversityforum.files.wordpress.com/2011/12/scotlands-geodiversity-charter2018-2023.pdf>.

One of the case studies included in the new Charter features the Rottal Burn restoration in Glen Clova. During the early 19th Century, the burn was straightened by the creation of a new channel. This effectively destroyed the habitat for fish. A partnership involving SEPA, SNH, landowners, Angus Council and the Esk Rivers & Fisheries Trust has returned 800 metres of the canalised burn to its original meandering course. Plantings of thousands of native trees have also helped to return the watercourse to a more natural flow regime and enhanced its biodiversity - ultimately, the



restoration of this dynamic geological feature will encourage the return of Freshwater pearl mussels to the burn.

Dundee Museums and Art Galleries

For those interested in biodiversity the D'Arcy Thompson Zoological museum offers a rare treat. On Dundee University Campus the museum houses many fascinating specimens from around the world. Most of them were collected by the celebrated Sir D'Arcy Wentworth Thompson, the first Professor of Biology at Dundee. Located on the ground floor of the Carnelly Building the museum is only open on a select number of days in 2018:

- 30 March (Good Friday): 2 - 4.30pm
- 31 March (Easter Saturday): 10am - 12.30pm
- Every Friday afternoon between 1 June and 31 August, 2 - 4.30pm

More info can be found at: <https://www.dundee.ac.uk/museum/collections/zoology/events/>

The McManus galleries also provide fascinating natural history exhibits and a deep insight into Dundee's history. There is also opportunity for "behind the scenes tours" giving you the chance to see collections not normally shown to the public! Details and dates of tours can be found on the website: <http://www.mcmanus.co.uk/content/galleries-displays/galleries>

Angus Museums

Angus Alive has eight museums and galleries for you to visit: there is a list here - www.angus.gov.uk/museums/. The Kirriemuir Gateway to the Glens Museum will introduce you to the wild nature of the Angus Glens. Montrose Museum has lots of natural history and art too. Perth Museum & Art Gallery

Perth Museum & Art Gallery

Perth museum there is enough to interest anyone, from portraits and photographs to meteorites and Miss Ballantyne's salmon. Learn about local history in the Beginnings Gallery, explore the natural history of the area in Wild and Wonderful, or view a range artwork including portraits by John Everett Millais.

The museum also holds large and important collections of zoological, botanical and geological material. In numerical terms this is the largest part of the collection with 150,000 specimens. It is the 6th largest collection of natural history in Scotland.

The schedule of temporary exhibitions regularly changes so there no excuse not to keep going back. Details of upcoming exhibitions can be found at: <http://www.culturepk.org.uk/whatson-search-results/?venue=Perth+Museum+and+Art+Gallery&event=exhibitions-and-displays>



Saving Scotland's Red Squirrels

Ann-Marie MacMaster

Last year the Heritage Lottery Fund (HLF) awarded the Scottish Wildlife Trust £2.46 million for the 'Saving Scotland's Red Squirrels – Developing Community Action' (SSRS-DCA) project. This will be delivered over five years and will enlist the help of volunteers who will carry out both practical and survey work to protect and strengthen red squirrel populations in their local area, and in turn safeguard Red squirrels across Scotland.



Scotland is home to c120,000 Red squirrels - three quarters of the UK

population. The main threat to our native squirrels comes from competition with the invasive non-native Grey squirrel and the spread of the deadly Squirrel pox virus (SQPV), carried by some Grey squirrels. Through an eight-year trial SSRS has established it is possible to halt the decline of Red squirrels through co-ordinated Grey squirrel control.



©Ann-Marie MacMaster

One of the priorities for Ann-Marie MacMaster, SSRS Conservation Officer for Tayside, is to ensure that Grey squirrels (which could be carrying SQPV from southern Scotland) are prevented from spreading north of the 'Highland Line' and into Aberdeenshire, where the virus currently does not exist. It was therefore very worrying for the team

to learn of recent reports of grey squirrels in Edzell and Laurencekirk. Grey squirrel control work has been - and will continue to be - focused in the Montrose and Brechin areas. Estates in these areas will be encouraged to apply for government funding for grey squirrel control, and seasonal Grey Squirrel Officers will focus on these areas.

Ann-Marie is covering Clare McInroy's maternity leave until August 2018. Volunteers will be recruited and trained to trap grey squirrels. If you would like to get involved in survey work or Grey squirrel control - or you would like Ann-Marie to speak at one of your events - please contact her on amacmaster@scottishwildlifetrust.org.uk. If you have seen a Red or Grey squirrel, dead or alive, please report it at www.scottishsquirrels.org.uk.



Record Breaking Increase in Corn Bunting Numbers

Yvonne Stephan

The corn bunting was once widespread but large declines led to extinction in Ireland, an end to regular breeding in Wales and made the corn bunting one of the fastest declining birds in England and Scotland. Some 95% of Scotland's corn buntings are found in eastern Scotland, but even in their last strongholds, they declined by 83% between 1989 and 2007.



©Yvonne Stephan

However, the commitment of local farmers, estates and other land owners has turned the tide for this iconic species and is showing fantastic results: Corn bunting numbers have increased by over 26% in Angus and Fife, two of the last remaining Corn bunting hotspots. This is the highest increase in Corn bunting numbers in any single year since records began and even surpasses Fife's 2016 record of an 18% increase. We also recorded first range expansions in both areas, where Corn buntings started to spread over much larger areas.

This success is due to increased efforts by the farming community and other landowners to help Corn buntings in both regions through a mix of greening and agri-environment schemes. The main management option consists of the establishment of unharvested wild bird seed mix plots. Owing to the large number of participating farms, these plots are now spread across most of the Corn bunting core areas. Plots provide winter seed food, insect food as well as safe nesting places. They are often complemented by other beneficial management options such as over winter stubbles, late mown silage, wild flower margins, beetle banks and conservation headlands.



©Andy Hay



©Yvonne Stephan

We are looking for volunteer surveyors to help with the annual Corn bunting monitoring scheme. You need good bird ID skills, but you won't need any previous formal surveying skills as an introduction to the survey method will be provided. If you can spare three mornings throughout the breeding season (mid-May to early August) and would like to know more, please get in touch.



Contact Yvonne Stephan (RSPB Conservation Advisor), Mobile: 07738881317 Email: yvonne.stephan@rspb.org.uk.

Sustainable Urban Drainage

Daniele Muir, Perthshire Wildlife

A project to improve our Sustainable Urban Drainage Systems (or SUDS ponds) for wildlife across Perth and Kinross is now ongoing. With Angus Environmental Trust funding, the Community Sustainable Urban Drainage (SUDS) Project is exploring the best practice needed by working with local communities and volunteers in enhancing and improving existing SUDS ponds. We are also exploring the wider landscape in ensuring that amphibian migration routes are safeguarded to those SUDS ponds.

A mapping exercise is underway to ascertain the key habitat immediately around the SUDS and the wider habitat (if there are ponds or grassland areas in nearby gardens, parks, school grounds, etc.). Volunteers have the opportunity to undertake citizen science surveys, including the OPAL freshwater survey, an amphibian survey and a general habitat survey.

Training days will also include an amphibian ladder making workshop and the fitting of amphibian ladders to trial in the vicinity of a number of SUDS. Volunteers will champion specific areas and continue to monitor each of the sites. Volunteers have already been involved in practical tasks to improve their local ponds for wildlife, with tasks so far having taken place in Blairgowrie and Murthly, ensuring there are pockets of water available for amphibian spawning in early spring 2018. This project will enable many people to ensure that their local SUDS ponds are improved for the wildlife that lives there, as well as the surrounding areas becoming more welcoming and less hazardous.

If you are interested in taking part in this exciting project, please contact Daniele Muir on taysideamphibians@yahoo.co.uk or check out the “What’s On” section of www.taysidebiodiversity.co.uk for details of working parties and events.



Before and after photos of the recent Murthly SUDS pond volunteer day ©D Muir



The Scottish Mammal Group

Adrian Davis

The Scottish Mammal Group is a new voluntary organisation offering interested individuals and groups a practical opportunity for field-based involvement in mammal research/studies. There is currently a real gap in field ecology knowledge in relation to mammal behaviour and ecology. Many protected species such as wildcat, pine marten, red squirrel, beaver and otter are little understood in relation to their ecology. Key factors such as survival rates, breeding strategies and denning behaviour have very few published or study papers in many species, which make conservation particularly difficult and advice is often by experts rather than scientific research.

The Group plans to

1. Provide a forum in order to ensure the development and promotion of Scottish mammals to benefit research, study, conservation and guidance.
2. Produce small scale voluntary field based projects to better understand Scottish mammal ecology and behaviour.
3. Act as a partnership to bring together an active group with a plan and timescale to define research opportunities.

A shortlist of projects will be drafted up and funding sought for each topic.

Contributing organisations and volunteer time are key to the projects with experienced ecologists leading and guiding the research/studies. Organisations have already contributed hardware such as remote cameras, Geographical Information Systems and time.

Raising the profile of Scottish mammals in the media and promoting better understanding of their ecology and behaviour is one of the key aims, with recorded behaviour through camera traps and observation in the field. There will also be a new website, Facebook and Twitter accounts in due course.

Contact either Yvonne Brown or Adrian Davis to find out more or to ask about membership - Yvonne@a9consulting.co.uk (Tel. 01463 831835) or naiadecology@hotmail.co.uk Tel. 07761673231).

Stop The Plastic Tide!

Catherine Gemmell

Thank you to everyone throughout Angus and Tayside for taking part in last year's Marine Conservation Society's Great British Beach Clean. Over 1,500 volunteers headed out across Scotland to collect that vital data from over 100 beaches. Unfortunately we saw a 7% increase in litter levels on Scottish beaches from 2016 with a large amount being made up of single use 'on the go' plastic such as straws, cups and cutlery.



We therefore launched our Stop The Plastic Tide Appeal when we announced the results last November which is calling on the Governments of the UK to put in place levies on these single use items, on business and industry to reduce their use of these items and swap to alternatives and to us the consumer to reduce our own plastic foot print. <https://www.mcsuk.org/appeal/stop-the-plastic-tide>

Since then we have seen the Scottish Government propose a ban on plastic cotton bud stems and an expert panel to look at other single use items with straws hitting the headlines. We need to keep this momentum and if you can help stop the plastic tide by signing the petition online, helping out at a beach clean or taking part in our Plastic Challenge in June to reduce your plastic foot print our seas and beaches will feel the difference!



© C A G Lloyd

MCS looks forward to taking part in the Angus Coastal Festival later this year and we hope to see many of you back out at the beach that weekend for this year's Great British Beach Clean running from the 14th-17th of September.

The Pitlochry Swift Conservation Project

– Daniele Muir, Tayside Swifts

We are very grateful to have received funding from the Andie Millar's Trust to run the Pitlochry Swift Conservation Project, which started with a guided walk in July 2017. We are raising awareness of our local swifts with the local community – involving all ages in taking care of these special birds and to make Pitlochry a safe and welcoming town for these amazing birds. With a drop of over 62% in swift populations over the last 20 years or so - mainly due to loss of nest sites - swifts are in desperate need of conservation action.



Swift works of art, Pitlochry library © D Muir

In early 2018, presentations were given to Logierait and Blair Atholl primary schools, so the pupils could learn about the ecology of swifts, why their numbers have dropped so much and what we can all do to help. An important part of the project is to set up a Swift Twinning Project between Scottish and African schools, with schools in Tanzania, Uganda and South Africa having been contacted.

As part of a Super Swifts event in Pitlochry library in February, artwork was produced which will make up part



of the Scottish representation at an international swift welcoming ceremony in Israel in April.

The project will continue over the spring and summer with guided walks taking place during the first ever UK Swift Awareness Week which runs from 16th to 24th June; join us in Pitlochry on the 16th June and in Blair Atholl on 22nd June to find out more. Nestboxes will be erected on schools, businesses and houses, swift survey training will be carried out and we will map where swifts have been seen in screaming parties and where nest sites have been found. This will be shared with the Perth & Kinross planners to create Swift Priority Zones to assist in swift conservation in the future.

If you are interested in taking part in this exciting project, please contact Daniele Muir on: dmuir@taysideswifts.co.uk

Tayside Biodiversity Partnership

With the launch of the 2nd Edition Tayside Biodiversity Action Plan in 2016, a new monitoring system is being set up so that the 586 individual actions can be reported upon. This will be undertaken by the different Working Groups shown below.

New members are always welcome, either as a “consultee” if you cannot attend meetings but wish to find out more, or as a full member if you can attend meetings two or three times a year. Please contact the Working Group Leader direct for further details.

| Working Groups: | Leader: | Contact: |
|---|------------------------------------|--|
| Water & Wetland | Kate Baird | kate.baird@sepa.org.uk |
| Coastal & Marine | Kelly Ann Dempsey | DempseyK@angus.gov.uk |
| Farmland & Upland (including Barn Owl Interest Group) | Carol Littlewood | carol@littlewoodlandcare.co.uk |
| Urban & Built Environment | Craig Borland and David Williamson | forfarloch@angus.gov.uk ; dwilliamson@pkc.gov.uk |
| Woodland | Mike Strachan and Tim Goucher | Mike.strachan@forestry.gsi.gov.uk Tim.Goucher@forestry.gsi.gov.uk |
| People & Communications | Polly Pullar | pollypullar@yahoo.co.uk |
| Species Interest Groups: | Leader: | Contact: |
| Tayside Swifts | Daniele Muir and Catherine Lloyd | DMuir@taysideswifts.co.uk caglloyd@pkc.gov.uk Facebook page - Tayside Swifts |
| Small Blue Butterfly | Glyn Edwards | perthshirebutterflies@eastscotland-butterflies.org.uk |
| Tayside Amphibian & Reptile Group (TayARG) | Daniele Muir and Catherine Lloyd | taysideamphibians@yahoo.co.uk or caglloyd@pkc.gov.uk Facebook page - Tayside Amphibians and Reptiles |



Useful International and National Websites:

- <http://www.biodiversityscotland.gov.uk/> - gives details about the Scottish Biodiversity Strategy, the Biodiversity Duty for Public Bodies (Nature Conservation Scotland Act 2004) and the Scottish Biodiversity List
- <http://www.cbd.int/2011-2020/> - United Nations Decade on Biodiversity
- <http://www.brisc.org.uk> - Biological Recording in Scotland
- <http://www.scottishgeology.com> - Scottish Geology Forum

With thanks to all contributors to this Bulletin

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for the Tayside Recorders' Forum: March 2018

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This issue, together with past issues, can be downloaded from www.taysidebiodiversity.co.uk

If you would like extra paper copies for an event, please contact caglloyd@pkc.gov.uk

Facebook pages: *Tayside Wildlife Recorders / Tayside Biodiversity / Tayside Swifts / Tayside Amphibians & Reptiles*



Tayside Biodiversity Partnership

