



From Summit to Sand



Newsletter Issue 04

ACTION FOR TAYSIDE'S BIODIVERSITY

For over a decade the Tayside Biodiversity Partnership has provided a unique link between public, private and voluntary groups, as well as the general community. Biodiversity is key to sustainable development - without it we would have few medicines, little food (one in three mouthfuls of food we eat comes from food crops pollinated by bees or other insects) or attractive, working landscapes. It is critical to the productivity of our economy, including tourism. Just over one in five people in Tayside work in tourism-related employment; an equally large percentage work in agriculture, food production and forestry. Biodiversity is therefore "big business" as well as "local business".

Local authorities are actively reducing their total carbon footprint. As grasslands purify our atmosphere – they store far more carbon in their soils than tropical rain forests - carbon sequestration is an increasingly important aspect of greenspace management. A hectare of urban park is estimated to remove 1,200 kg of carbon dioxide from the air each day, returning a similar amount of oxygen. Both Angus and Perth & Kinross Council are actively changing their parkland and graveyard grassland regimes, so Tayside can significantly contribute to carbon reduction by managing land with biodiversity in mind.

Studies have shown that heart rate and blood pressure are reduced within minutes of entering a park. With up to 60% of Britain's urban biodiversity found in its gardens, our health can be greatly improved through walking, gardening or tending an allotment, even undertaking conservation work as volunteers – all this enhances biodiversity too.

Since 2000, the Partnership has been a "biodiversity information hub" in Tayside, its website attracting over a half million hits per annum and a suite of publications distributed. The term

"biodiversity" is now used widely by the media and understood by all age groups; children, especially, use the word.

Furthermore, since its introduction, the Nature Conservation (Scotland) Act 2004 has placed a duty on all public bodies to further the conservation of biodiversity. The Partnership's 'Building Better Biodiversity' series of seminars and workshops has trained some 1,500 people in the past few years and this has gone some way towards highlighting a wide range of issues to local authority staff.

There have also been many direct economic, employment, and health benefits. Some 60 projects have been championed by the Partnership. The SITA Tayside Biodiversity Action Fund has enabled a further 84 "on the ground" projects to be started through the allocation of £0.5 million. Few of these projects would have gone ahead without funding from the SITA Trust.

Raising awareness about Tayside's rich biodiversity is a huge task. 2010 was the International Year of Biodiversity and the Partnership celebrated by holding a month-long Festival, largely funded by the Scottish Government and the European Community Rural Tayside LEADER 2007-2013 programme. Following the Nagoya Summit at the end of the year, the UN has now decreed an International Decade of Biodiversity. Work enhancing and safeguarding our habitats and wildlife will need to go hand in hand with communicating links between everyone's well-being and the restoration of natural systems. The Partnership is an endorsing member of 2020VISION, a UK multi-media project that will help do just that. Keep up-to-date with the Partnership's news, publications and projects via www.taysidebiodiversity.co.uk.



New Butterfly Moving North

The Comma butterfly became extinct in Scotland in the 1870's, but is now returning, possibly due to climate change. The butterfly is moving north at between 12 and 15km/year and in the last ten years has successfully colonised southern parts of Tayside, with recent sightings reported from Dundee and Pitlochry.

Ragged wing edges distinguish this pretty orange and brown butterfly and make it unmistakable. This, together with the distinctive white comma-shaped marking on the undersides, mean it is an easy butterfly for the public to record. The butterfly can be seen in gardens and woodlands from May through to September as it has two generations a year.

Commas pass the winter as hibernating adult butterflies and it is feared the exceptionally cold winters we have had in the past two years may have reduced comma numbers. The first butterflies were probably migrants from northern England, but the Comma is once again breeding throughout southern Scotland. Look out for Comma Sightings postcards and this year let Butterfly Conservation (Scotland) know where you see these beautiful insects – www.butterfly-conservation.org/scotland.



Butterflies and Day-Flying Moths of Tayside and Fife

– a stunning new full-colour identification guide is now available, showcasing our local moths and butterflies. Pick up a free copy at Perth Museum or the Battleby Centre, or a number of other outlets throughout the region this summer. The guide can also be downloaded from http://www.butterfly-conservation.org/downloads/1991/butterfly_and_moth_identification_guides.html or www.taysidebiodiversity.co.uk.

Barn Owls in Tayside

Carol Littlewood, joint leader of the Partnership's Farmland & Upland Sub-Group, continues to collate Barn Owl sightings for Tayside and maintains the distribution map. The latest sightings have expanded the known population range slightly, but most have now confirmed Barn Owls are still active in areas where they have now been seen for a number of years and where they had been absent for a long time.

The latest news from the project has been mixed. One nestbox in the Glens has been tremendously successful, producing 14 chicks in 3 years. Last year a Barn owl brood fledged successfully from a nest box which had until then been unused. However, the ring from the very first Barn Owl born in one of the Angus project boxes has been returned. The bird, born in a barn near Montrose, was ringed when almost fully fledged on 1st May 2008. The bird was found dead on Christmas Day 2010 near Tealing. Although sad, it is interesting to see how far the bird had moved in 2½ years since leaving the nest. Hopefully this bird had found a mate and bred during this time.

Two harsh winters will have had its effect on bird numbers, particularly Barn owls as they find it difficult to feed when snow cover hides small mammals. The British Trust for Ornithology reported over 100 dead ringed Barn Owls in the winter of 2010-2011, double the usual number for Britain so Carol is keen to hear of both dead and live barn owls. You can take part in the Tayside-wide survey online or find out more about barn owls by checking:
www.taysidebiodiversity.co.uk/Get_Involved_Project_BarnOwl.html.



© Littlewood Land Care



Garden wildlife, both photos © C A G Lloyd

Kincarrathie House – Bursting with Biodiversity

In response to dwindling numbers of birds and bees in the area, Kincarrathie House Residential Home's biodiversity work is making its extensive grounds a hotbed of wildlife activity. Much enhancement has taken place to the pleasure of the residents and their relatives who all use the gardens, with many liking to sit on the benches within the walled garden.

Within the grounds there are deer, foxes, hares, rabbits, and numerous garden birds. Lesser spotted woodpeckers have successfully raised a brood of chicks, a pair of jays is resident, and a sparrow hawk is a regular visitor. Different types of bird boxes for tree creepers, swifts, house martins, tawny and barn owls have all been built. At the year end all the bird boxes are inspected and information on whether and how they have been used is recorded and shared with appropriate organisations.

The walled garden provides excellent shelter and nesting areas for all wild birds and several pairs of swallows make their homes in the tool shed. A 'no pesticide' regime is practiced within the grounds and all fallen leaves/grass cuttings are collected for the two very large compost heaps used to enrich the soil. There is also an orchard. Kincarrathie's woodland walk is covered in bluebells, snowdrops, tulips, crocuses, and daffodils early in the year – it is a favourite walk for the residents, those unable to walk accessing it with the use of mobility scooters. The sides of the walk are left in grass verges, offering great hiding places for the local hares.

To increase habitat for insects, the walled garden wildflower beds have been extended and two more large beds at the front of the home added. This should help the local bee numbers. Gardener Susie Eisner has completed a beekeeping course so hopes to soon have a hive within the walled garden.

Tayside Aspen Project

The Scottish Native Woods' (SNW) Tayside Aspen Project has been going from strength to strength. In its 2020 Vision for aspen in Scotland, SNW aims to restore this special tree to its rightful place as a significant and valued component of Scotland's native woods, using river corridors to connect the Highlands to the lowlands with appropriate stands of an iconic species which should be more common in both.

Progress has been made on all fronts. A review by Neil Mackenzie, commissioned to draw together all existing species information, has been published. It is available in hard copy or free to download from the SNW website. In survey work, an additional 43 stands have been located, the majority being recorded in the autumn as the leaves were turning yellow. This allowed additional records to be picked up relatively easily from a distance, with the use of binoculars.



© Scottish Native Woods



© Scottish Native Woods

Knowledge across the Angus Glens has increased greatly, with a number of good stands being noted at Glen Esk where active management is already taking place by the local estates to fence off and allow a number of stands to spread. During 2010, ten clones from Glen Esk were collected to propagate at the Zoo in Edinburgh, and any trees produced will soon be planted out on new native woodland schemes on Invermark Estate.

One of the most important aspects of the project has been producing aspen trees in Highland Perthshire. The Camserney Community Garden outwith Aberfeldy has taken a strong interest in the project; the garden is used by school children from Breadalbane Academy. There is an opportunity for SNW to establish an aspen propagation unit capable of producing 1200-1500 aspen trees a year.

An interactive mapping website will soon be fully operational and community involvement will be widened at Camserney. A further publication - Management of Aspen in Scotland - will be finalised. For further information contact Victor Clements at victor.clements@scottishnativewoods.org.uk, visit www.scottishnativewoods.org.uk or check the national database for the species at <http://scottishaspen.org.uk>.

Please send reports of any aspen you find flowering. Catkins form in March, but continue well into April and May. Check the photos of male and female catkins at different stages at <http://aspen2020.blogspot.com>.

Supporting Tayside's Tree Sparrows

Funding from the SITA Tayside Biodiversity Action Fund has allowed a second phase of the project "Targeting Tree Sparrows" to take place in Angus. Phase I of the project saw the erection of nestboxes at 30 sites, 10 each in Angus, Perthshire and Kinross, on farms where local knowledge and existing survey data indicated there were existing populations of Tree Sparrows. Uptake of the boxes has been positive: in the second year the best site in Angus had all 12 boxes being used by Tree Sparrows.

Phase II of the project, as well as allowing a second year of monitoring, also funded expansion of the project in Angus. Ten new sites were identified and twelve boxes were erected at each. These

sites were on neighbouring farms with suitable habitat to the ten phase I sites to encourage the expansion of the populations that phase I hopefully secured.

Carol Littlewood of Littlewood Landcare, who is running the project, took nestboxes in kit form to Woodlands Primary School in Carnoustie (supplied by Woodlark Products, Bankfoot) and helped one of the P5 classes make them up. A site visit with the children to Craigmill Den, by kind permission of the landowner Mr Ian Steven, enabled the boxes to go up with their help. In class they had learnt what sort of suitable sites Tree Sparrows needed and used this knowledge "out in the field". Members of the local bird group attended and talked to the children about the birds they could hear and see at the site.

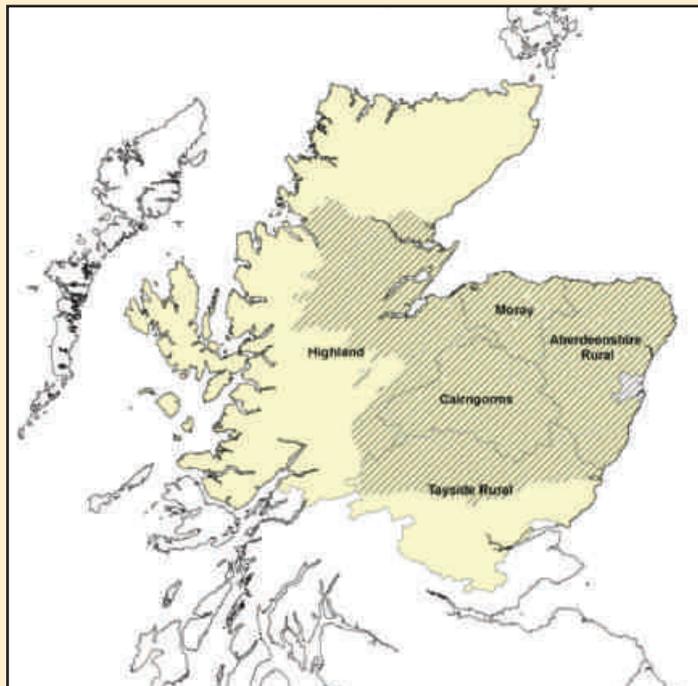
UK's Largest Mink Control Project comes to Tayside

Building on the success of the Cairngorms Water Vole Project, funding has secured a new initiative to control mink across the North of Scotland. Volunteers are being sought outwith the Cairngorms National Park on the River Garry, Tay and Tummel systems from Atholl across to Aberfeldy and Strathardle and Glenshee down to Stanley.

The initiative currently co-ordinates a wide range of volunteers from gamekeepers and ghillies to keen conservationists and dog walkers. The aim is to protect known strongholds of water voles in the uplands, as well as other native species such as goldeneye and water rails threatened by the invasive and non-native American Mink. The project relies on local communities for its success. Extending work to the Tay catchment will further expand this area of mink control.

The Game and Wildlife Conservation Trust-designed mink raft is used to monitor and trap mink. They have proven to be a time and cost effective method for learning where mink are present and how rapidly they recolonise areas following removal. In areas where rivers or burns are too rocky and prone to spates, volunteers are encouraged to look for footprints in the sand and mud following high water. Recent surveys have shown water vole populations are surviving in the headwaters of the Tay catchment with a lot of currently unoccupied suitable habitat that could be recolonised by water voles further down the catchment should mink numbers be controlled.

Mink rafts and traps are given out as part of the long term strategy of the project. If you live in or around the Tay and Tummel river catchments and would like to get involved with monitoring mink rafts, trapping mink or surveying for water voles, please contact Helen Gray at helengray@cairngorms.co.uk /07768 143739, or visit www.watervolescotland.org for more information.



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Care Home Biodiversity, Blairgowrie

In the last Summit to Sand Newsletter, Billie Jardine-Finlay gave an insight into the Muirton House Care Home's five step biodiversity project: a sensory garden, an orchard, a wild meadow, a small pond and feeding boxes, and a compost area. Paul Rice has taken over Billie's role - and work continues.

The sensory garden is full of fragrant, colourful, and tactile planting. The orchard is also underway, with the first trees planted. A wildflower meadow was made using plug plants, but the site proved unsuitable so an alternative proposal has been put to the residents. There is still discussion about making a pond - a bog garden full of damp-loving plants may prove more manageable and, perhaps, less risky. In the meantime, however, the compost corner is home to and a source of food for a cast of thousands, from invertebrates to hunters including owls and the local cat!

Last year a weekly survey sheet for residents, visitors and staff was introduced, allowing them to record their wildlife observations. Every week blackbirds and chaffinches have been recorded and, in all but one week, blue tits and red squirrels were spotted too. There are often single sightings of frogs, newts and foxes, with hedgehogs and snipe also being seen.

The surveys have resulted in exciting surprises, including a beautiful large emerald moth. A set of identification books has been made available to spotters, and along with some binoculars, will maximise everyone's enjoyment of watching the "backyard" wildlife. More details can be obtained from Paul Rice, Activity Co-ordinator, on 01250 872113.



The Partnership has published a series of eight bookmarks highlighting the rich biodiversity and geodiversity of the area. These are available on request to any organisation or community group in Tayside who would like to help raise awareness of our special wildlife.

TAYSIDE BIODIVERSITY FESTIVAL 2010



With the incentive of being part of the UN-designated International Year of Biodiversity, funding was obtained from the Scottish Government and the European Community Rural Tayside LEADER 2007-2013 programme (with match funding from Angus and Perth & Kinross Councils) to run a month-long Festival.

The programme featured over 140 events and many organisations offered walks, talks, presentations and activities from Highland Perthshire and the Angus Glens down to the Angus coast and Loch Leven in Kinross-shire. Local people of all ages, together with visitors to the area, took advantage of the events offered across Tayside.

Without such an enthusiastic willingness to be part of the event and without the funding that was made available, the Festival would never have been possible. It is hoped to repeat a similar Festival in the future, but in the meantime Tayside will contribute to the Scottish Biodiversity Week events that take place around International Biodiversity Day every May. Further details will be made available via www.taysidebiodiversity.co.uk.

Biodiversity on the Tulloch Lade

The Festival was officially launched on the 1st of May with Tulloch Primary School hosting the Tulloch Lade 800 Eco Exhibition. Opened by the Scottish Minister for Environment, Roseanna Cunningham MSP, the event included a Ranger-led guided walk and apple crushing alongside 26 stalls representing groups such as Tulloch NET, the Scottish Wildlife Trust, Perth Red Squirrel Group and the Tayside Biodiversity Partnership. Provost of Perth and Kinross, Dr John Hulbert, planted the first fruit tree at the community's new orchard at Mayfield playing field as part of its official opening ceremony.

The Tulloch Lade 800 Project has seen the local Christian charity Tulloch NET and its many partners engage in research and improvement of the historic Perth Town Lade, with an emphasis on the importance of the Lade to the people and communities of Perth. The project hopes to enhance the Lade as a green corridor and increase its value to Tulloch residents, with biodiversity goals spread across its targets. 2010 saw tree-planting sessions with local school pupils and the wider community, artistic projects from both professional artists and primary school pupils, and oral history research assisted by Tulloch Youth Club.

The project will not be slowing in 2011 either, with extending the existing orchard, planting trees, hedges and shrubs along new areas of the Lade, exploring the possibilities of allotments/community gardens and conducting an archaeological survey of the Lade corridor. The unanimous agreement of four local Lade action groups to form a unitary Perth Lade Action Group is already well in hand. For further information contact Richard Higginbottom, Tulloch NET Community Development Worker, at richardh@tullochnet.org.uk.



Litter pickers, Perth Lade © Tulloch Net; Perth Lade

A First for Killiecrankie – participants of the Festival's Bumblebee Identification Course came across a particularly impressive find – the scarce Forest Cuckoo Bumblebee (*Bombus sylvestris*). According to the National Biodiversity Network Gateway this was the first finding in the 10km square centred on Killiecrankie. Female cuckoo bumblebees have distinctive patterns of bumps on the rear of the abdomen (underneath). In all, five different species of bumblebee were found on the day and participants discovered which flowers were attracting which species – for instance the bugle and red campion in full flower in the glen were attractive for the longer-tongued bumblebee species.



Forest Cuckoo bumblebee (female) © Bumblebee Conservation Trust

The SITA Tayside Biodiversity Action Fund Reception welcomed over 60 people to the Carnoustie Golf Hotel to hear about the ongoing projects taking place through SITA Tayside Biodiversity Action Funding. This included an update on such projects as the Perth and Dundee City Bats Survey, the Tree Sparrows and Barn Owl projects and Forest Research's Perthshire Juniper Survey. The Scottish Wildlife Trust also gave an update on the range of projects for which it had received funding – the Montrose Wet Grassland Grazing Project, Saving Scotland's Red Squirrels and the Keltneburn Enhancement Project.

The 150th Birthday of D'Arcy Wentworth Thompson coincided with the Festival. As founder of the University's Zoology museum, the museum celebrated with a series of events, bringing in Nobel Prize-winning biologists and award winning creative writers among others to celebrate Thompson's continuing legacy.

Reptile Walk - Trevor Rose of the British Herpetological Society led two reptile walks into Loch Lee, Glen Esk in Angus. He plans to do the same again in 2011.

The first UK survey of amphibians and reptiles has found that Britain's most widespread snake, the adder, is in decline. Slow worms, common toad, common frog and great crested newt are also becoming less widespread. The only species found to be increasing its range is the palmate newt. The Amphibian and Reptile Conservation Trust has been gathering data since 2007. The Trust's National Amphibian and Reptile Recording Scheme has presented its interim findings which cover the first half of the six-year survey period from 2007 to 2012. If you would like to take part in any surveying or training, contact Friends of Angus Herpetofauna – Tel. 01674 671676; secretary@thebhs.org.

Railway Puts Nature on Track

Anneliese Emmans Dean of the BigBuzz wrote a piece on her time in Tayside especially for this newsletter:

“That’s a crazy idea! We’ll do it!” And so began our association with the Tayside Biodiversity Festival. Catherine Lloyd, the Tayside Biodiversity Co-ordinator, asked my musician John Rayson and me to help her launch the new Nature on Track leaflet which highlights the wealth of wildlife visible from Tayside trains. She wondered if we would be willing to perform at stations and on trains up and down the Tayside coast – something we had never ever done before. So, one very sunny Saturday morning at the end of May, classical viola player John got his viola out on Platform 2 of Perth Railway Station and began playing – to the evident surprise and delight of waiting passengers. Realising passengers awaiting the arrival of the Glasgow train on the other platform could also hear John, Catherine took over some of the leaflets and free wildflower seed packets to explain what was going on. I continued with poems about the wildlife to be seen from trains. And then our train arrived, and we continued performing on and off the ScotRail trains from Perth to Carnoustie, Arbroath and up to Montrose.

I was moved by how our music and poems touched people of all ages, from young families to quite elderly people, engaging them and sparking discussions about what wildlife they had seen, or were looking forward to seeing, in the area.

On the Sunday we twice performed our Buzzing! show to very enthusiastic visitors at the fabulous Montrose Basin Visitor Centre. Our show celebrated in music, poetry and images the huge variety of invertebrate life that can be found by the Basin. Afterwards, we serenaded rail travellers back down the route from Montrose to Perth.

An unforgettable weekend for John and me and, I hope, for the Tayside rail-travelling public, who will now forever associate that stretch of the coastal rail journey with sea eagle and bee music on the viola, daft ladybird and goose poems, and the teeming variety of wildlife that can be seen in Tayside.

Anneliese Emmans Dean,
theBigBuzz: info@theBigBuzz.biz
www.theBigBuzz.biz

The Nature on Track leaflet can be found online at http://www.taysidebiodiversity.co.uk/Events/Travelling_Along_Tay_Wildlife_Leaflet.pdf

Working alongside ScotRail, it is planned to expand this project across a large area of Scotland. Discussions are currently ongoing with the Biodiversity Officers in Argyll & Bute, Cairngorms and Highlands to prepare a series of leaflets and web-based information. Updates will be given on www.taysidebiodiversity.co.uk.

Platform Biodiversity

A number of railway platforms in Tayside are being improved with biodiversity in mind. If you would like to be part of this, please contact the Co-ordinator for further information at tayside.biodiversity@ukf.net



Anneliese Emmans Dean, wildlife poet, at Arbroath Station © CA G Lloyd



John Yellowlees (First ScotRail), Anneliese Emmans Dean and John Rayson © CA G Lloyd



John Rayson, violist, on the Biodiversity Train © CA G Lloyd

BioBlitz at Dundee's Trottick Ponds

The grand finale to the Tayside Biodiversity Festival was the Dundee BioBlitz. With vital funding from Hillcrest Housing Association and the BBC Breathing Spaces' 'Wild days Out' a fun 24 hours was spent recording as many species as possible. In the evening frogs, toads and newts were found, as well as pike and eels. The event included an expert from the National Amphibian and Reptile Recording Scheme and the local Moth Recorder. There was also a lot of bat activity, with Daubenton's and Soprano Pipistrelles noted – detectors started picking them up from the second they were switched on!

Sunday saw over fifty people join the activities at Trottick. They had the opportunity to meet invertebrate and grassland experts from McManus Galleries, Buglife Scotland and Fife Ranger Service. The records were collated by Dundee Ranger Alison Cairnie, with over 230 species found on-site. Along with the biological recording various children's activities took place, including pond dipping, badge making and nature trails. Wildflower seeds were planted and some Butterbur bashing helped deter its encroachment on to the wildflower meadow.

The event was a great success and will help the Ranger Service manage the site correctly in future. Local people learned there was more to the ponds than just the swans they feed and hopefully they will be inspired to become local recorders.



BioBlitz Pond Dipping © C A G Lloyd



Swans at Trottick © C A G Lloyd



The Youth Theatre at the Birnam Oak © C A G Lloyd



The Tree at The Fortingall Yew © C A G Lloyd

The Tree – No Wood'n Acting Here!

Tayside Biodiversity Festival 2010 was always going to be special in the International Year of Biodiversity, but a little extra something was added by the enthusiasm of some of the most talented young actors within Perth Youth Theatre Collective. Their eco-comedy, *The Tree*, swept up anyone who came across it - full of colourful characters, mad-cap humour and live music, the play invited us to look at what would happen if there was only one tree left in the world. A host of characters laid claim to the last tree – the house-builder, the artist, the farmer, a pirate and a hippy to name but a few... but who won out and at what cost?

The play engaged younger audiences and their families with over 350 people from all walks of life seeing it in local parks and in the locale of internationally recognised trees during May 2010 - the play was performed on the North Inch, Perth; MacRosty Park, Crieff; Larghan Park, Coupar Angus and Kirkgate Park during Loch Leven Discovery Day. On International Biodiversity Day performances also took place under the dappled shade of the Birnam Oak, near Dunkeld (famous for its Shakespearean connections) and in Fortingall's graveyard in front of Europe's oldest tree, the Fortingall Yew.

There was an opportunity to work with different partners, primarily Perth & Kinross Council Environment Service, Scottish Natural Heritage and the Tayside Biodiversity Partnership. The project also linked with the Perth 800 celebrations and the Orchard 800 Project (Forestry Commission Scotland, Perth & Kinross Council and Tayside Biodiversity Partnership).

Sensational Fun

The Dundee Science Centre, with BBC Breathing Places' 'Wild Day Out', welcomed internationally-acclaimed naturalist and wildlife photographer David Boag who gave an inspiring insight into his adventures as a wildlife photographer, first with a presentation and then during a photography workshop.

David's detailing of his African expeditions provided an appropriately international flavour on International Biodiversity Day, but he didn't fail to bring home its local import and interest too. Science Learning Officer Karen Phelan said "the talks and workshop delivered by David were very informative - the audience enjoyed being taken on an African Safari and learning top tips for taking the perfect photograph."

David's contribution to the Festival didn't stop in Dundee. He showcased the challenges of photographing wildlife in his Natural Quarry talk at a full house at the Pitlochry Festival Theatre and in Crieff shared his experiences in taking groundbreaking photographs of the beautiful and spectacular kingfisher. In Kirriemuir he gave two talks on a watery theme: "The Nature of Water" and "The Wild Coast"; at Piperdam, by Dundee, he enthralled the audience with his wide-ranging photographic travels through America.



Up close Photography Day at Kindrogan Field Studies Centre © C A G Lloyd



David's wildlife photography workshop at the National Trust for Scotland's Killiecrankie, was a sell-out. A morning of glorious weather was spent cooped up inside learning about the techniques of wildlife photography, but as soon as lunch was out of the way, everyone eagerly joined David on a walk through the magnificent wooded gorge to try out the new skills they had just learnt. A similar event took place at Monikie Country Park in Angus with the addition of David gamely judging the Angus Folk, Flora and Fauna Photography Awards.

And last, but not least, Kindrogan Field Centre, between Pitlochry and Blairgowrie, hosted a unique 'Up Close' Photography Day with pupils from Perth schools who wanted to learn from a world-leading photographer. Councillor Bob Ellis and Catherine Lloyd, the Partnership's Biodiversity Co-ordinator, joined the schoolchildren for the day.



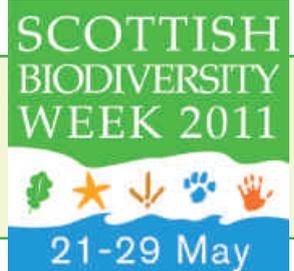
Up close Photography Day at Kindrogan Field Studies Centre © C A G Lloyd



"Winning Photo" Angus Folk, Flora and Fauna Photography Award © Alex Murray

SCOTTISH BIODIVERSITY WEEK

Biodiversity is Life. Biodiversity is our Life. Join in as many events as you wish throughout Scotland – check the listing at www.snh.gov.uk/biodiversityweek.



Eradicating Invasive Non-Native Weeds

The presence of Atlantic salmon and Freshwater pearl mussels has caused the designation of the River South Esk catchment in Angus as a Special Area of Conservation (SAC). Montrose Basin, the large enclosed estuary of the River South Esk is a Ramsar site, Special Protection Area, Site of Special Scientific Interest and Local Nature Reserve. The catchment supports a wide range of economic activity in industries such as farming, forestry, fisheries, tourism and recreation.

The River South Esk Catchment Partnership is busy implementing its first large-scale task: an Invasive Non Native Species (INNS) eradication project. This is focussing on reducing the health and safety risk of giant hogweed and improving access and amenity of the river and its tributaries. Awareness of non-native invasive species will also help to limit their spread and enhance biodiversity. Their removal will contribute towards achieving favourable conservation status of the River South Esk SAC.

A river watch scheme is being developed by the partnership allowing the public to report invasive weeds, fresh water pearl mussel poaching, species sightings and many other topics.

The Esk Rivers and Fisheries Trust has been awarded £20,000 by the Angus Environment Trust (landfill tax funding) to get the project started. The success of this application ensures that match funding previously awarded by Angus Council, Esk Rivers & Fisheries Trust, Scottish Natural Heritage, Cairngorms National Park Authority, and Rural Tayside LEADER is now available, enabling a further year to deliver the objectives of the River South Esk Catchment Management Plan.

For more information about the River South Esk and the Catchment Partnership visit <http://www.angusahead.com/southesk> or email the project coordinator Kelly Ann Dempsey at dempseyk@angus.gov.uk.

Monitoring Schiehallion's Biodiversity

John Muir Trust volunteers are helping monitor UK Biodiversity Action Plan priority habitats and species at East Schiehallion. Habitat monitoring includes upland heath, flushes and developing woodland. Volunteers have also been successfully searching for signs of Water Voles and for the butterfly species Mountain Ringlet. Found in a new location, the surveys for this butterfly will continue with a transect route set up through areas of suitable habitat.

The Mountain Ringlet has very specific habitat requirements and is found in mat grass dominated areas between 400 and 900 metres above sea level. Surveys should be carried out on warm, sunny days in early July so playing dodge with wet weather is an unfortunate reality and can hamper progress on some survey days!

The East Schiehallion estate is special for a number of important habitats and species and is partly designated as a Site of Special Scientific Interest for its botanical interest. It is of particular importance on account of its limestone pavement habitats, flush vegetation and limestone outcrops, listed within the Tayside Biodiversity Action Plan.

CAN YOU SPARE ONE HOUR THIS SUMMER?

Wherever you are in Tayside, please look to the skies at around 9pm on a July evening and let us know if you see any swifts: http://www.taysidebiodiversity.co.uk/Get_Involved_Project_Swifts_OnlineSurvey.asp.

If you are in Perth and Kinross and would like to help co-ordinate a few surveys, report specific swift colonies or nest sites, please see the Countryside section of www.pkc.gov.uk or contact community-greenspace@pkc.gov.uk or Tel. 01250 874661.

In Dundee and Angus, please contact the Ranger Service at Forfar: forfarloch@angus.gov.uk or Tel. 01307 461118.

Swifts in Perth and Kinross and Beyond

The Perth and Kinross Ranger Service continues to map the presence of swifts and their nest locations across the two counties. The public has been assisting with the survey through passing on their sightings via phone calls, taking part in the Tayside Swift Survey, and by entering sightings into the online survey.

New swift 'hot-spots' have been discovered including Burrelton, the Jeanfield area in Perth, and Rattray. This information will be put into the local planning authority's GIS systems to produce 'Swift Priority Zones' which is crucial in swift conservation. Loch Leven still seems to be the best place in the area to watch large numbers of feeding swifts with around a thousand being seen there each May.

Guided walks will take place during 2011 – check www.taysidebiodiversity.co.uk – and look out for the new Swift information banners – they will be touring different venues across Tayside to give more information about this enigmatic species.



Young Swifts in their nest © Erich Kaiser / Kronberg



Flying Swift © Marc Guyt

Tayside Lochs Project

In 2007 the Scottish Environment Protection Agency (SEPA) selected 31 priority lochs across Scotland that had a record of priority plant species (Slender naiad, Shetland pondweed, Pillwort, and some stoneworts) and which were in need of conservation. The 31 lochs are included in SEPA's Environmental Improvement Action Plan (EIAP). These plans deliver additional improvements complimentary to SEPA's role as an environmental regulator – they help secure resources for water chemistry analysis, macrophyte surveys, palaeoecology investigations, review of discharges/consents and project co-ordination. The conservation of mesotrophic lochs is a key responsibility for SEPA, driven by UK, Scottish and Local Biodiversity Action Plan targets, the Water Framework Directive and responsibilities under the Nature Conservation (Scotland) Act 2004.

In 2008, phase 1 of the Tayside Lochs Project involved the formation of a partnership to conserve Slender Naiad (*Najas flexilis*) at Fingask and White Lochs, south of Blairgowrie. The project partners included Tayside Biodiversity Partnership, the Farming and Wildlife Advisory Group, Blairgowrie Angling Club, Rosemount Golf Club and SEPA. Phase 2 of the project has since focused on the other lochs in the Tayside EIAP - Loch Monzievaird (near Crieff), Monk Myre (Blairgowrie) and the Loch of Lintrathen, near Kirriemuir in Angus.

The Loch of Lintrathen is a large mesotrophic loch and a Scottish Water drinking water supply so it is vital the water quality is safeguarded. The loch is also a Site of Special Scientific Interest, Special Protection Area, Ramsar site and a Scottish Wildlife Trust Reserve. It is designated a SSSI because of its internationally-important numbers of wintering greylag geese which roost on the water, and for its assemblage of wintering wildfowl which includes whooper swan, widgeon, teal, mallard and goosander. In addition, the SSSI designation includes standing waters - the assemblage of plants present is indicative of mesotrophic conditions.

A similar partnership was formed to safeguard the loch's water quality and protect its diverse plant species - Tayside Biodiversity Partnership, Scottish Wildlife Trust, Scottish Natural Heritage, Scottish Water, Bell Ingram, Littlewood Land Care and SEPA.

The water quality of the loch is closely monitored by Scottish Water. Additional monitoring carried out in 2009 by SEPA indicated issues with nutrient enrichment, backed up by the levels of Phosphorous present. This can lead to algal blooms which can cause problems with water quality as well as potentially altering the loch's diverse plant species assemblage. SEPA's plant survey, completed in 2009, recorded several Potamogeton (pondweed) species. *Nitella* spp. was also present as was, unfortunately, *Elodea canadensis*,

a non-native invasive plant. A report of further findings will be provided shortly by Scottish Natural Heritage as part of their Site Condition Monitoring Programme.

A public event held at Kilry Village Hall in September 2010 highlighted the loch's condition and provided information on ongoing biodiversity projects, including projects to safeguard Red squirrels, Water voles and birds. Results from SEPA's Diffuse Pollution survey were also discussed as this identified areas in the loch that need to be studied further. By employing a partnership approach to safeguard and enhance the water quality at the Loch of Lintrathen, it is envisaged wider benefits to the catchment in terms of riparian improvement and biodiversity value will also be achieved.

For further information on the Lintrathen Partnership, contact Kate Baird (Kate.Baird@sepa.org.uk).



© Kate Baird



© Kate Baird

Publications from the Tayside Biodiversity Partnership

Paper copies are available on request or can be downloaded from www.taysidebiodiversity.co.uk.

Multiple copies are available on request for events, exhibitions, etc – contact Tayside.biodiversity@ukf.net or Tel. 01738 475373.

- * Newsletters – Summit to Sand; Barn Owl; Red Squirrel; Swifts in Tayside
- * An Introduction to the Tayside Biodiversity Action Plan
- * Biodiversity in Community Gardens, Orchards and Allotments – Making Way for Nature
- * Traditional Orchards in Tayside – a Guide to Wildlife and Management
- * Tayside Green Kirk & Graveyard Initiative
- * Species – Tayside Terns: Information and Code of Practice; Tayside's Farmland Priority Species Guide; ZOOM Bumblebee survey; Have you Seen a Barn Owl survey; Tayside Swift Survey
- * Planning for Biodiversity – Householders' Guide to Biodiversity; Biodiversity – a Developer's Guide; A Guide to Incorporating Biodiversity into Development (A Manual for Planners and Developers in Tayside); Biodiversity Advice Notes; Incorporating Biodiversity into Local Services

Angus School Orchards



The Angus Orchards Project is establishing 60 new orchards, mostly in the Angus Schools, for their use and others. It is a three year project, so the task of sourcing Scottish, or better still, local apple trees is an ongoing task. The project received its first year's supply of apple trees from John Butterworth's organic fruit tree nursery in Ayrshire, but with John's retirement, Scotland is experiencing a 'gap in the market'. John did arrange for a nursery in England to graft buds to grow on, so his legacy lives on – there will be 54 local Scottish apple trees that have been 'contract grown' returning to Angus in due course.

A further 167 fruit trees are needed for the project. Ideally the trees will be of Scottish varieties, important for several reasons: (a) to help stimulate the local orchard heritage and culture within Angus; (b) retain the rich and highly important biodiversity heritage of orchards; (c) retain the bio-heritage of local varieties, many of which have been developed for their distinct suitability to local climate. Some compromises have had to be made, so it will be interesting to see how well a 'James Grieve', originally grown in Edinburgh, does in Glen Doll instead of the more suitable 'Coul Blush' from Ross-shire! For further information about the project, contact Fred Conacher at Angus Council, Tel. 01307 473844; e-mail conacherf@angus.gov.uk.

This project, along with many others across Tayside and beyond will be followed via www.centralcoreorchardnetwork.co.uk and via the Orchard section of www.taysidebiodiversity.co.uk. Both websites will carry news of local Scottish fruit tree suppliers as and when they are sourced.

Apple Day

Look out for local events taking place around 21st October; these will be advertised on the biodiversity website. The Partnership continues to offer training in pruning, grafting or managing new or veteran orchards. Contact Tayside.biodiversity@ukf.net for further details.

The Linnet Link

The Linnet Link involved the selection of sites for planting of shrub strips for habitat enhancement along the Arbroath to Dundee cycle track. The planting was co-ordinated by Angus Council, with Carol Littlewood walking the track surveying for Linnets at different times of year. Those seen were always associated with established linear habitats such as woodland strips and hedges running perpendicular to the cycleway.

The enhancement planting has been planned to prioritise where it would make links between some of these linear habitats and so increase the movement of Linnets along this corridor. The planting will also improve the habitat for many other species - those seen during the surveys included Tree Sparrow, Yellowhammer, Chaffinch, Goldfinch and Blackbird. It will certainly make the cycle path more interesting for those using it.



Orchard Lichens - a new survey shows that the Carse of Gowrie orchards are nationally important for lichens: 112 species have been discovered, of which 11 are nationally scarce. Download the report at www.taysidebiodiversity.co.uk.

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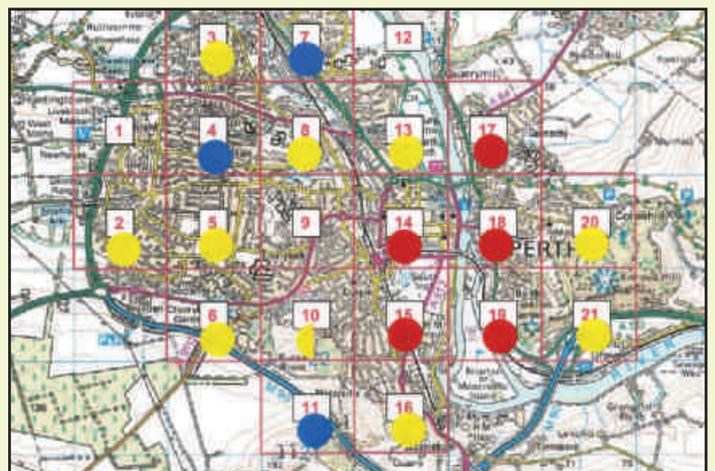
The Perth City Bat Project

This project not only increased awareness of bat conservation, but collected records of bats in Perth, as well as engaging volunteers in surveying. The project, a partnership project involving the Perth and Kinross Council Ranger Service, the Bat Conversation Trust and Perth Bat Group, helped fulfil some of the aims of the Species Action Plans for bats in the Tayside Biodiversity Action Plan.

Postcard fliers were sent to households in Perth inviting volunteers to take part. Simple surveys could be carried out by watching for bats and sending records to the Perth and Kinross Council website 'bat page', whilst more adventurous volunteers were given free training and loaned bat detectors to carry out surveys. Fun activities at Perth Library and Huntingtower helped show bats in a positive light and media coverage of the project was very extensive. Of the 21 kilometre square areas within Perth, 18 were surveyed. Bats were detected in every square that had a survey. That makes Perth perth-fectly Batty! The battiest squares and bat hotspots in Perth were identified - squares were rated for HIGH (red), MEDIUM (yellow) or LOW (blue). Volunteers gave a remarkable 600 hours towards the project - it could not have taken place without them. Thanks are due to the SITA Tayside Biodiversity Action Fund, Awards for All and Scottish Natural Heritage who funded the project. A full report is available from Anne Youngman at ayoungman@bats.org.uk.



Volunteers surveying bats in Perth © Anne Youngman, BCT



Survey results © Bat Conservation Trust

Wildflower Parks in Perth and Kinross

During 2010 Perth and Kinross Council began a long-term project to improve the biodiversity of 22 parks and open spaces. This will involve altering the grass management regimes, as well as sowing new wildflower meadows. In Perth the two main parks, the North and South Inches, have had summer meadow areas which has resulted in an increase in insect populations - the South Inch saw a rise in moth numbers while the North Inch was abuzz with bumble bees all summer.

Elsewhere, Kinross' wildflower maze was created where the 'walls' of the maze include ox-eye daisy, red and white Campion, yarrow and greater knapweed, and in Coupar Angus a bumble bee meadow was created in a quiet corner during renovations of the park. All these areas will be cut annually in the autumn with the resulting 'hay' removed.

There are also plans to improve opportunities for wildlife in a number of the older churchyards in Perth and Kinross which will include tree and shrub planting, putting up nest boxes and bat boxes, making changes to grass management, as well as conserving a mason bee colony found in the walls of an old church building. As part of the Tayside Green Graveyard Initiative, a lichen survey will be undertaken in a number of Perthshire's churchyards.



Bugloss at Larchan Park © David Williamson

FURTHER INFORMATION

SITA Tayside Biodiversity Action Fund - an application form and guidance notes can be downloaded from www.taysidebiodiversity.co.uk, or paper copies can be requested from Tel. 0845 605 2000.

Tayside Biodiversity Partners include:

Angus Council, Forestry Commission Scotland, Littlewood Landcare, Lockett Agri-Environment, National Farmers' Union, National Trust for Scotland, UHI (Centre for Mountain Studies), Perth & Kinross Council, Royal Society for the Protection of Birds, Scottish Agricultural College, Scottish Government Rural Payments & Inspections Directorate, Scottish Environment Protection Agency, Field Studies Council, Scottish Rural Property & Business Association, Scottish Natural Heritage, Scottish Wildlife Trust (and until April 2011: Dundee City Council)

Chairman – Dennis Dick

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