

Issue 50

Summer Issue 2014



BIODIVERSITY SCOTLAND

THE FORUM — 50th ISSUE

## Scotland's Biodiversity: Scotland's National Peatland Plan Consultation underway

The National Peatland Plan Consultation document was launched on 6<sup>th</sup> June 2014. The 3 month consultation sets out proposals, and poses some questions regarding what needs to be done for peatland conservation, management and restoration in Scotland.

It has been informed by contributions from Scottish Natural Heritage, Scottish Government, Scottish Environment Protection Agency, Forestry Commission Scotland, Historic Scotland, Scottish Crofting Federation, Scottish Land & Estates, South Lanarkshire Council, Scotland's Moorland Forum, James Hutton Institute, COSLA, RSPB, Scottish Wildlife Trust, and IUCN UK.

Your views are being sought on Scotland's peatlands, and what can be done for them. By commenting on [Scotland's National Peatland Plan](#) you can influence the future of these special habitats and how they contribute to so many aspects of life in Scotland.





# I Contents & Contacts

## Inside this issue:

<u>Launch of Peatlands Plan</u>	3
<u>Project for protection of 'Enchanted Isles' seabirds</u>	4-5
<u>Beetlemania rocks Coll</u>	6-7
<u>HWDT—First Whale Week Festival</u>	8-9
<u>TFL—Community purchase for Highland Pinewood restoration project</u>	10-11
<u>Invasive Non-native species updates</u>	12-13
<u>RBGE—Commemorative poppy field</u>	14
<u>Featured Fungus</u>	15
<u>Scotland's' Nature Festival 2014</u>	16-17
<u>Climate Ready Scotland</u>	18
<u>Mapping Scotland's Wild Land</u>	19
<u>RBGE—Unique Heritage &amp; Conservation Hedge</u>	20-21
<u>Butterfly Conservation Bog Squad—Protecting Peatlands</u>	22-23
<u>New Citizen Science Guide</u>	24-25
<u>Bee APP-Bee</u>	26
<u>Cairngorms Futurescape TreeFest 2014</u>	27
<u>Diary dates</u>	28

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Do you have a news story? Are you involved in a project? If so, then let the Biodiversity Team know! Ask for our article guidelines to help you make the most of your article.

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**BIODIVERSITY SCOTLAND**

## Peatlands Plan (con't)

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To obtain your digital copy of the full Consultation Document, two newly published Commissioned Reports about peatlands and Respondee Forms, visit <http://www.snh.gov.uk/climate-change/what-snh-is-doing/peatland-action/national-peatland-plan/>

The consultation period is from 6 June to 12 September 2014.

All of this adds to and complements SNH's concerted work on peatland restoration under the Peatland ACTION project, <http://www.snh.gov.uk/climate-change/what-snh-is-doing/peatland-action/>

SNH is working closely with the Scottish Government and the land management sector to take this work forward.

Peatland ACTION is taking the restoration challenge head-on, with progress to date as follows:

- 4890 ha are benefiting from practical restoration across 51 sites;
- 56 grants or management agreements have been offered and accepted; and
- 29,700 ha are benefiting from feasibility study, survey or monitoring (most of this is in preparation for practical restoration work).

At the last application deadline was in June 2014, the project received 47 new applications reflecting continued interest in peatland restoration across the Scottish land management sector. Peatland ACTION has kick-started the draft National Peatland Plan's restoration quest, and will continue beyond March 2015 in an awareness raising and facilitating role. Once available the new [Scottish Rural Development Programme \(SRDP\)](#)  will become the main method of funding to restore and manage peatland habitats.

You can contact the Peatland ACTION team by email: [PeatlandACTION@snh.gov.uk](mailto:PeatlandACTION@snh.gov.uk)



Should you require the consultation document in paper format please contact :Morag Elliott

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Scottish Natural Heritage  
Dualchas Nàdair na h-Alba

**Peatland  
ACTION** Restoring  
Scotland's  
peatlands

A project to safeguard Scotland’s threatened seabird colonies by eradicating invasive black rats on the Shiant Isles has been awarded almost £450,000 of European Union funding.

The remote Shiant Islands are home to more than 150,000 seabirds that gather there to breed each year, including 10% of the UK’s puffin population and 7% of the UK’s razorbills. The island group, located in the Minch in the Outer Hebrides, is one of the most important seabird breeding sites in Europe and has been designated as a Special Protection Area (SPA).

Despite this protection, scientific evidence shows these internationally important seabirds are being preyed upon by introduced, non-native black rats that most likely came ashore from shipwrecks in around 1900. The significant pressure from rats is in addition to major and intensifying threats faced by Scotland’s seabirds, including climate change, pollution and a shortage of food. Ten of the 16 Scottish seabird species monitored between 2000 and 2012 have shown significant declines.

The Shiant Seabird Recovery Project aims to increase the resilience of seabird populations to these challenges and help to reverse the declines by ridding the islands of the invasive rats that are having such a detrimental impact. The project is a partnership between RSPB Scotland, Scottish Natural Heritage (SNH) and the Nicolson family, who have been the custodians of the Shiant Islands for three generations.

Adam Nicolson said: “This is a great opportunity to return the Shiant Islands to what they should be: even more full of life, with more bird species and more resilient in the face of future threats. We hope that as a result of this very exciting project, generations of people will come to know the islands as they should principally be known – that is as one of the greatest of all hubs of Atlantic seabird life.”



*Both photographs by kind permission of Jim Richardson*

## Major EU funding award to benefit struggling seabirds on “enchanted” isles

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George Campbell, RSPB Regional Director for North Scotland, said: “Scotland’s globally important seabirds are suffering chronic declines and we have a responsibility to do everything we can to reverse these trends. Eliminating the invasive rats on the Shiant Isles will ensure safe breeding sites for struggling seabirds and allow the recovery and restoration of the island’s existing colonies, as well as encourage Manx shearwaters and storm petrels to breed there. We are hugely grateful to the European Commission, SNH and our supporters who will allow us to make these islands a seabird haven once more and contribute to shoring up our threatened seabird populations.”

Andy Douse, SNH’s policy and advice manager for ornithology, said: “The impact of rats on breeding seabirds is one of the greatest issues of current conservation concern. We know that eliminating rats on offshore islands can have marked benefits to the recovery of breeding seabirds and allow the restoration of species driven to extinction. This is an exciting project that will address the problems created by rats on one of Scotland’s finest concentration of breeding seabirds as well as providing us with a better understanding of rat control methods that can be used more widely as well as promoting better biosecurity for islands that remain or have been cleared of invasive rats.”

Studies of the contents of rat stomachs have shown that seabird eggs and young chicks are predated by the rodents. Evidence suggests that the population of puffin on the islands has decreased considerably over the past century and razorbill and common guillemot populations in the Shiant Isles SPA are in unfavourable declining status.

Following substantial research and consultation with specialists, an operational plan is being developed to eradicate the rats in the safest and most effective way, with the lowest risk of impacting native species, by laying poison in bait stations around the islands.

The project will cost around £900,000, with European Commission funding of £446,371 now secured under the LIFE+ programme, the European Union’s environment fund. Scottish Natural Heritage (SNH) is providing £200,000 and the remainder will be raised from donations.



A rare flightless beetle found in only two locations in the UK has been counted in abundance on the Isle of Coll.

RSPB Scotland and Buglife researchers visiting the island were surprised to discover over 150 short-necked oil beetles on survey sites, a 400% increase on the last count carried out in 2010. Teams also identified two new sites for the beetle on the island. Until 2008, short-necked oil beetles were thought to be extinct in the UK. However, recent surveys determined there are two small populations present- one in Devon and the other on Coll.

The beetle, which is named for the toxic oil secretions it produces when threatened, emerge in the early spring and immediately begin feeding on a wide variety of vegetation. After feeding on buttercups and other low growing plants, the beetles mate and the females begin the process of digging a burrow and laying over 1000 tiny orange eggs which hatch in a few weeks.

Once the eggs have hatched, the young larvae (called triungulins) crawl up on to vegetation, and wait to hitch a lift on a passing solitary bee in order to reach the bee's nest. The oil beetle larvae then eat the bee's egg as well as the protein- rich pollen the bee provides to its own larvae, emerging as a fully formed beetle the following spring.

## Rare oil beetle found in abundance on Hebridean island

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It is thought changes in farming practices across the UK have led to short-necked oil beetle declines. The intensification of agriculture and the loss of flower-rich meadows have been linked to a decline in bee populations- which have a knock-on effect on beetle populations.

James Silvey, Nature Recovery Officer at RSPB Scotland, said: “It is fantastic to discover so many individual beetles on Coll and a good sign that the population is healthy and continuing to grow. The wildflower-rich habitat and the extensive dune systems found on this island make a fantastic home for bees and beetles alike. We will continue to monitor this population but it seems clear from this survey that Coll is the best place in the UK for this incredible species.”

Dr Scott Shanks, Conservation Officer at Buglife Scotland, said: “It was really exciting to find so many of these charismatic and rare beetles on Coll during the surveys. The abundance of wildflowers in the machair and dunes of the island, combined with lots of warm, bare sand provide near-perfect habitat for the solitary bees that the oil beetles depend on. It is hoped that the Information collected during the surveys will help protect these rare beetles and help identify other sites where the beetles may be found.”

For further information please contact:

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## Hebridean Whale and Dolphin Trust—

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A new annual week-long festival boosting the profile of The Hebrides as an internationally-important hotspot for whale spotting and conservation action was launched on World Oceans Day on 8 June, in what is believed to be the first event of its kind in Scotland.

Humpback whales, orcas and bottlenose dolphins were the order of the day in Tobermory on the Isle of Mull between 8-15 June 2014, as conservation charity Hebridean Whale and Dolphin Trust (HWDT) celebrated its 20th anniversary with its first Whale Week. A wide range of activities and events helping to increase knowledge and understanding of Scotland's spectacular whales, dolphins and porpoises – known as cetaceans – and The Hebrides' globally important marine environment.

HWDT hopes that the local community, schools and tourists will be inspired to help ensure the long-term survival of these remarkable marine creatures, which are facing increasing stress from human activities including climate change, habitat degradation, pollution, entanglement in fishing gear, and underwater noise. So far 24 cetacean species – including several national and international conservation priorities – have been recorded in the region.

“We hope that Whale Week created a real buzz about western Scotland's wonderful whales, dolphins, porpoises and basking sharks. We are fortunate to have one of Europe's most important habitats for these remarkable marine creatures – and by raising awareness and protecting them we can bring economic and social benefits to the entire region,” said Eva Varga, HWDT Operations Manager.

## - First whale week festival

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Guests were able to step on-board survey boats, hear talks by experts, and enjoy fun and educational activities. There was a daily treasure hunt and displays at HWDT's visitor centre; touch tank sessions run by Tobermory Harbour Association and HWDT; a pub quiz and music evening in Tobermory's Mishnish Pub; and an award ceremony for artwork, music and writing created during the week and for the winners of a window display competition.

HWDT's research yacht Silurian, previously used in filming of the BBC's acclaimed series The Blue Planet and nicknamed the 'floating classroom', returned from research expeditions across the Hebrides to Tobermory on 8 June for four days. There were opportunities to go on-board Silurian and Celtic Mist, the research vessel of the Irish Whale and Dolphin Group.

Presentations highlighted the latest research findings and discussed the killer whales of the North Atlantic, including the West Coast Community living off the Hebrides – a pod thought to be the UK's only resident group of orcas. The Irish Whale and Dolphin Group discussed their research on humpback whales in the North Atlantic, while local company Sea Life Surveys described 30 years of respectful whale watching.

The festival closed on 14 June with the final day featuring beach activities with competitions, demonstrations and creative activities for children, families and adults.

HWDT works to secure the future of western Scotland's cetaceans and their marine environment by enhancing knowledge and understanding through education, research and engagement with local communities. People can support crucial research by reporting sightings of cetaceans and basking sharks, or by volunteering alongside marine scientists on research expeditions.



Plans for a major new pinewood restoration project in the Scottish Highlands have been given the go-ahead after Forestry Commission Scotland agreed to sell 1,086 hectares of woodland at Glen Mallie and South Loch Arkaig in Lochaber to a Highland community group in partnership with conservation charity Trees for Life – marking a major milestone in efforts to restore the ecologically important but rare native Caledonian Pinewood habitat.

The Achnacarry, Bunarkaig and Clunes (ABC) Group and Trees for Life now have 18 months to raise £500,000 to buy the land, following which they will begin a process of native woodland restoration and of restoring the links between the local community and the wild and remote country on the south side of Loch Arkaig in the West Highlands.

This is believed to be the first time that a conservation charity has partnered with a community group to purchase surplus Forestry Commission land under the National Forest Land Scheme. The scheme – administered by Forestry Commission Scotland – gives communities and non-governmental organisations the opportunity to acquire state-owned forest land which has been declared 'surplus' by the Forestry Commission.

Gary Servant of the ABC Group said: "This is a great opportunity for the local community to secure real benefits in terms of sustainable rural development, to support local land-based jobs and livelihoods whilst at the same time helping to protect, restore and expand these important remnants of native Caledonian Pine Forest."

Trees for Life's Executive Director Alan Watson Featherstone said: "We are delighted that Forestry Commission Scotland has approved the bid to purchase this native pinewood site,



which is rich in biodiversity and historical importance. We now have a unique opportunity to take a significant step forwards in achieving our vision of a renewed Caledonian Forest in the West Highlands, while bringing real social and environmental benefits to the remote rural Lochaber community. Our challenge now is to raise the funds required to make this vision a reality."

He added: "This exciting project offers a unique opportunity to pioneer an innovative partnership between a conservation charity and a local community group, which could be a valuable model for efforts elsewhere in the Highlands to achieve native woodland restoration on a significant scale whilst at the same time securing substantial rural development benefits for local people."

## Unique community purchase go-ahead for Highlands pinewood restoration project

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The Glen Mallie and South Loch Arkaig forests contain iconic native pinewood remnants that were damaged by fire during commando training in the Second World War, and were subsequently acquired by the Forestry Commission and underplanted with commercial conifers in the 1970s. The long-term aim of Trees for Life and the ABC Group is to restore the native pinewoods and other natural habitats of the area to the benefit of both people and biodiversity.

The forests were declared 'surplus' by Forestry Commission Scotland in September 2013 as part of its national repositioning strategy. The ABC Group formally applied to purchase the land in February 2014, after completing a draft business plan, with support from the National Lottery 'Investing in Ideas' fund, and conducting a postal ballot of local residents.

Trees for Life was invited to become a key project partner due to its expertise in native pinewood restoration and in actively promoting practical action for woodland conservation.

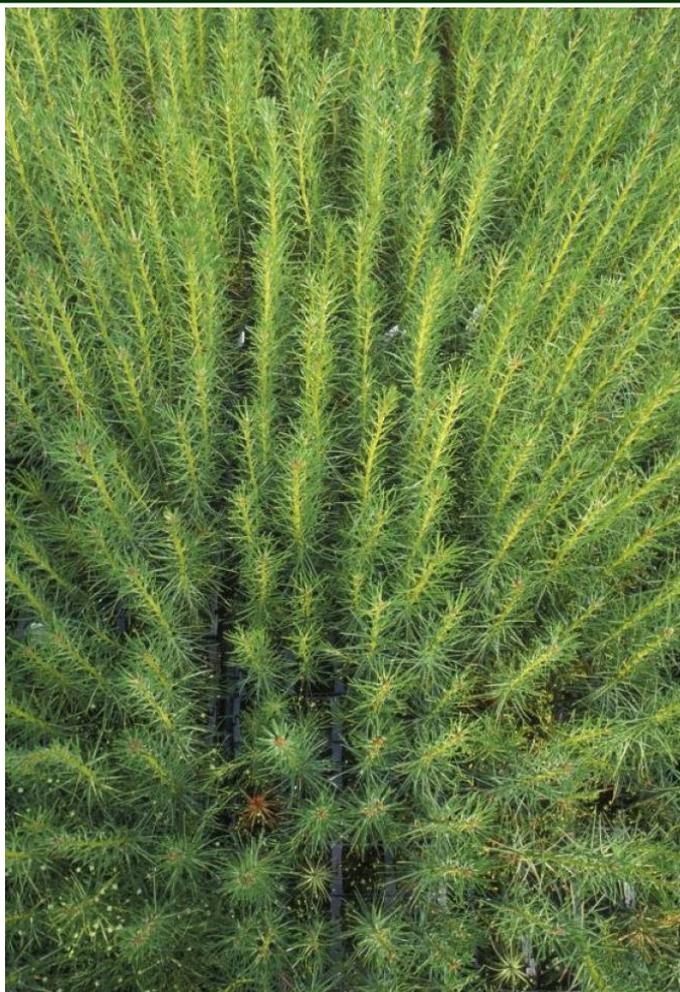
Forestry Commission Scotland then held a 28-day open consultation, for the public to comment on any aspect of the proposal. An independent panel of experts made a detailed evaluation of the project and has now recommended its approval.

Award-winning Trees for Life already owns and manages a significant area of woodland, having purchased the 4000 hectare Dundreggan Conservation Estate in Glenmoriston near Loch Ness in 2008.

Today only a fraction of the former native Caledonian Pinewood habitat survives in the form of around 80 pinewood remnants in the north and west of Scotland, but Trees for Life has planted more than a million trees and has created 4000 hectares of new forest. The charity aims to establish one million more trees by planting and natural regeneration by 2018, creating expanded habitats for Scotland's remarkable and rare wildlife, including species that are in danger of extinction.

Throughout this year, Trees for Life is celebrating 25 years of pioneering conservation action. People can support the charity by becoming a member, carrying out conservation action, sponsoring trees for special occasions or sponsoring an acre of native forest.

See [www.treesforlife.org.uk](http://www.treesforlife.org.uk) or call 0845 458 3505.



# Invasive Non-Native Species Updates

## Non-Native Species Action Group

The Non-native species action group (formerly the Scottish Working group on Non-Native Species) is now one of the nine groups supporting the delivery of the Scottish Biodiversity Strategy. The initial task for the group is to develop priority lists of non-native species in Scotland for a) surveillance and b) management.



## Species Control Agreements and Orders

The legislation provides for Species Control Agreements and Species Control Orders. Information on these can be found at <http://www.snh.gov.uk/protecting-scotlands-nature/nonnative-species/sco/>.

The Law Commission and Westminster Environmental Audit Committee have now called for England and Wales to receive similar powers to Scotland.

## Biocontrol for invasive non-native plants

CABI (<http://www.cabi.org/about-cabi>) has been developing bio-control techniques for some invasive non-native plants in the UK. Field trials are underway on Japanese knotweed at several locations and a consultation is ongoing into a potential project to control Himalayan balsam



# Invasive Non-Native Species Updates

## Online forum for Local Action Groups.

Following recommendations from the Local Action Group Workshop 2014, an online forum for Local Action Groups was established. The forum will provide a space for groups to share ideas and resources, aiding increased collaboration between groups. To join the forum contact [LynByrne@wildlifetrustswales.org](mailto:LynByrne@wildlifetrustswales.org).



© Snowdonia National Park Authority

## Action

Action has been taken with notable success on several species:

Black bullhead (a species of catfish) was eradicated from England in 2013

Ruddy duck has been reduced from around 6000 to 30 individuals in England

North American Mink in the Hebrides have been reduced to less than 20 individuals.

A new project has recently received funding to eradicate the black rat from the Shiantis.

On a less positive note, however, the Asian shore crab has just reached southern Britain and action is required for this species

## Advice for Local Action Groups

There is now revised guidance for Local Action Groups on the GB Non-Native Species website at <http://www.nonnativespecies.org/index.cfm?sectionid=26>

Check, Clean, Dry signs, posters and leaflets can be downloaded from the website or hard copies can be ordered from [checkcleandry@nonnativespecies.org](mailto:checkcleandry@nonnativespecies.org).



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## RBGE—To mark the Centenary of First World War with Poppy Field

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The Royal Botanic Garden Edinburgh (RBGE) will mark the centenary of the start of the First World War by creating a poppy field at the centre of its Edinburgh site. The display will commemorate the employees who went to war, many of whom lost their lives, and will also remember others who were, or still are, affected by war.

Commenting, RBGE's Regius Keeper Simon Milne MBE says: "Plant symbolism is an important part of cultures across the globe, particularly through representing emotions and spirituality. It is therefore fitting that at the Royal Botanic Garden Edinburgh, the heart of Scotland's plant heritage, we mark the anniversary of the start of World War One with a



poppy field. I hope that the flowers will encourage people to reflect on the 16 million people who lost their lives and the impact that the war had on the lives of everyone."

The poppy field, located on the Garden's prominently-positioned Glasshouse Lawn, was sown in May using the common poppy *Papaver rhoeas*, an iconic symbol of remembrance and used to commemorate the Great War since 1921. This large, four-petalled, scarlet flower can lie dormant for many years before germination which is often triggered when the soil is disturbed.

During the First World War, battlefields that were blasted and bombed created ideal conditions for it to flourish. The sight of poppies, appearing to heal the torn earth, inspired Canadian Lieutenant Colonel John McCrae to write the memorable war poem "In Flanders Fields."

RBGE's horticultural team is planning for swathes of poppies to emerge in late July, in time to mark the centenary. David Knott, Curator of the Living Collection, explained: "We did trials with the poppy in our nursery last year in order to try and get the timing of flowering just right to coincide with the start of the commemorations. Once the poppies are planted, we are pretty much in the hands of the weather as to the result but we all hoping our efforts will make a fitting and timely tribute."

At the time of the Great War, the Garden had 110 staff and of the 88 men, 73 joined the forces and 20 lost their lives in action.

## Featured Fungus—Mitrula paludosa (Bog beacon)

*Mitrula paludosa* can grow up to 5cm tall and has a yellow or orangey swollen 'head' area held aloft on a white or translucent stem. The yellow head is the fertile section and as this is one of the Ascomycetes (spore shooters) this fruit body should be particularly efficient at distributing its spores – the fertile part held up into the air currents and the spores shot out.

*Mitrula paludosa* is a saprotrophic or 'recycler' fungus, which is breaking down dead plant litter. They play a vital role in driving the carbon cycle, releasing nutrients that they don't require back into the habitat.

**Fruiting:** in Scotland, *Mitrula paludosa* starts to appear in March, peaks in May and June and seems to have disappeared by the middle of September



© Liz Holden



**Habitat:** found on the dead remains of higher plants, mosses and algae, this species is usually found in areas of seeping water. Thus ditches, slow moving streams, sphagnum patches and loch sides can all be productive places to search.

**Distribution:** Dennis (British Ascomycetes 1981) describes this species as common in suitable situations but the distribution noted on the NBN is certainly scattered. The total number of records for this species on the Fungal Records Database of Britain and Ireland is 647 with 200 of those originating in Scotland.

<https://sites.google.com/site/scottishfungi/home>



# Scottish Nature Festival 2014

Scotland's Nature Festival was held between 17<sup>th</sup> and 25<sup>th</sup> of May 2014 and was a great success with a total of 169 events in the programme. The Festival is held annually to inspire and engage the public with nature.

Scotland's Nature Festival is recognised by a wide



Children's fun day at Haddo Country Park © Sarah Gale

range of organisations and an

increasing number of schools as a time when they can get extra help to organise events on nature. This year, Scottish Natural Heritage (SNH) provided a variety of materials including banners, pencils made from recycled lunch trays, puzzle rulers and postcards (see opposite

page) depicting beautiful natural landscapes. The events programme is advertised through [The List](#) website publicising events throughout the country.



Scotland's Nature Festival is held annually in May to tie in with the [International Day for Biological Diversity](#) (IDB) which falls on 22<sup>nd</sup> May. The International day for Biodiversity was proclaimed by the United Nations and is promoted by the [Convention on Biological Diversity](#).

The theme for SNF in 2014, "Love Life, Love Nature," was kept deliberately broad so that interested organisations could contribute events on a range of relevant perspectives best suited to their work. This inspired a wide range of organisations to participate in an eclectic events programme.

Children's fun day at Haddo Country Park  
© Sarah Gale

## SNF 2014

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Events included:

- An opportunity to see the world's fastest bird, the peregrine falcon in action in the Cairngorms National Park as well the chance to go on an amazing and challenging tree top walk.
- A Woodlands Community Garden picnic took place in Glasgow. The Woodlands Community Garden is run by local people who grow and tend vegetables and fruit and look after this little oasis in the city. The Garden threw its doors open with activities for kids and adults alike as well as sharing their food.
- Dams to Darnley Country Park Rangers held a trek in a trek through the country park and helped people find naturally growing food that they could add to their springtime dinners.



If you took part in the Festival, thank you! If you didn't, we look forward to welcoming you on board for 2015. If you have any comments or questions, please get in touch at : [biodiversity@snh.gov.uk](mailto:biodiversity@snh.gov.uk)



# CLIMATE READY SCOTLAND - FIRST SCOTTISH CLIMATE CHANGE ADAPTATION PROGRAMME

The first [Scottish Climate Change Adaptation Programme](#) has been published by the Scottish Government. It addresses the impacts identified for Scotland in the UK Climate Change Risk Assessment published under the UK Climate Change Act 2008. It sets out Scottish Ministers' objectives in relation to adaptation to climate change, their proposals and policies for meeting those objectives, and the period within which those proposals and policies will be introduced.



The programme aims to increase the resilience of Scotland's people, environment and economy to the impacts of a changing climate. One of the three outcomes is for 'A Scotland with a productive, healthy and diverse natural environment which is able to adapt to change'. Existing policies, including the Scottish Biodiversity Strategy, will contribute to the Programme. Specific policies include work being led by SNH to demonstrate adaptive management in National Nature Reserves and illustrate principles for helping nature adapt to climate change (see <http://www.snh.gov.uk/climate-change/what-snh-is-doing/helping-nature-adapt/>). A case study in the



Programme highlights the Queen Elizabeth Forest Park where different ways to create resilient forests are being demonstrated by Forestry Commission Scotland, as part of the Climate Ready Forest Network <http://www.forestry.gov.uk/website/forestresearch.nsf/ByUnique/INFD-9C2GLN>.

## Update to map of Scottish Wild Land Areas

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SNH has published a new map of 'wild land areas 2014', as part of its advice to Government on identifying our wildest landscapes, which can be viewed on the SNH website: <http://www.snh.gov.uk/protecting-scotlands-nature/looking-after-landscapes/landscape-policy-and-guidance/wild-land/mapping/>. The 'Core areas of wild land 2013' (CAWL) map published last year, and the 'Search areas for wild land' map published in the SNH 2002 Wildness in Scotland's countryside policy statement are now superseded.

The new map identifies 42 wild land areas (19.5% of Scotland), a reduction of around 62,000 hectares from the CAWL 2013 map (which identified 20.3% of Scotland). Much of this change simply reflects refinements to the methodology and use of new and more recent data. But two areas have been removed - Upper Almond (in Perthshire) and the Broad Law/Dollar Law/Black Law area (in the Scottish Borders). One new area has been identified, Ben More on Mull.

The new wild land map has been published in support of the new [Scottish Planning Policy](#) (SPP) and [National Planning Framework 3](#) (NPF3), both launched on 23 June 2014. NPF3 recognises wild land as a nationally important asset. SPP requires planning authorities to identify and safeguard the character of the wild land areas in general, and identifies them as 'Areas of significant protection' in spatial frameworks for onshore wind farms.

The analysis and map are the result of a desk based exercise for use as a strategic planning tool. Individual development proposals will still require field assessment and consideration on a case-by-case basis. SNH is currently preparing individual descriptions for each of the 42 areas.

## RBGE—Unique Heritage & Conservation Hedge

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Young plants propagated from ancient and threatened yew trees around Scotland - and beyond – are being used to create a unique heritage hedge and important conservation resource at the Royal Botanic Garden Edinburgh (RBGE). At the heart of the project which was launched today, are progenies of the most ancient of all, the Fortingall yew, in the churchyard of Fortingall near Aberfeldy, Perthshire. Estimated to be 3,000 years old, it is thought to be the oldest living tree in the UK.

The Fortingall plants are among a collection propagated from common yews (*Taxus baccata*) of heritage status from throughout the country and will feature in the new hedge being planted around the perimeter of the Garden. The collection includes young plants derived from trees from the Borders to Easter Ross and Ayrshire to East Lothian. Others have been propagated from such famous specimens as the stately Great Yew of Ormiston, East Lothian, and the John Knox Yew, of Finlaystone, Renfrewshire, both of which, it has been claimed, saw the Reformer preach beneath their branches. Robert the Bruce's Yew, meanwhile, perched on a rocky outcrop of private land near Tarbet, Argyll, allegedly provided shelter for the embattled King in 1306.





During an ambitious 10-year project, the Scottish plantings will be joined by young trees propagated from collections made around the UK and overseas – as far ranging geographically as Ireland to Albania and Portugal to Sweden. Altogether, 2,000 young yew trees will eventually cover an area of around one kilometre in length.

While the hedge will provide a fascinating insight into heritage yew trees, there is also a serious conservation side to the project. Around 20 per cent of the plants within it have been grown from heritage trees. The rest will be from populations worldwide where the *Taxus baccata* is listed nationally as threatened.

Martin Gardner, Co-ordinator of the RBGE-based International Conifer Conservation Programme explained: “This is the first time that a botanic garden will be surrounded by a conservation hedge and it is of great importance. There is a need to conserve old-growth trees and remnant populations and to safe-guard plant biodiversity in the face of global environmental change.

“Once the hedge is established, I look forward to being asked why the yew hedge is not uniform in growth, colour and texture. My response will simply be ‘Ah, but that is biodiversity for you’.”

There are a large number of well-documented heritage old-growth yew trees to be found in churchyards and stately homes. The common yew has always played an important part in the culture of mankind through folklore, medicine, warfare and religion and represents a powerful symbol of resurrection.

## Butterfly Conservation—

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Scottish peat bogs have received a boost with the launch of a 'bog squad' dedicated to saving these precious wildlife habitats. The Bog Squad, managed by wildlife charity Butterfly Conservation Scotland, was officially launched by Aileen Campbell MSP, at Langlands Moss Local Nature Reserve, East Kilbride, South Lanarkshire on April 27th. The 'Bog Squad' team is a volunteer task force, created to carry out rehabilitation works on damaged peat bogs across the Scottish Central Belt, with funding from Scottish Natural Heritage's Peatland Action project.

Scottish peat bogs are key wildlife habitats providing homes for bog specialists, such as the Large Heath and other rare butterflies such as the Small Pearl-bordered Fritillary and Green Hairstreak. Bog edges also provide vital homes for rare moths such as the Argent & Sable, Lunar Hornet and Wood Tiger. Many Scottish bogs are in a poor state after being planted with alien conifers, damaged by drainage, used as dumps and stripped for garden use. But they are increasingly valued for their biodiversity, and the 'ecosystem services' they provide, such as flood prevention and carbon storage. Most of our lowland raised mires are in the Central Belt, Aberdeenshire and in Dumfries and Galloway. Many are small and isolated in landscapes of intensive agriculture.

MSP Aileen Campbell, said: "I am very pleased to be able to launch the Butterfly Conservation Bog Squad project in my role as Species Champion for the Large Heath butterfly. Peatlands are a very special part of our heritage as well as being important for wildlife and for providing ecosystem services. They are also great places for people to enjoy, and at Langlands Moss local people really value their local peatland."



## BOG SQUAD TO PROTECT PEATLANDS

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Butterfly Conservation Bog Squad project Officer, Sara Green said: “Peatlands are not only beautiful and fascinating places, with their own unique wildlife. They also help us to reduce flooding and combat climate change by locking up carbon. We will be recruiting and training volunteers to help conserve these wonderful places.”



Langlands Moss Local Nature Reserve is one of several sites where the volunteers will be working - installing dams across old drains and controlling scrub.

Maureen Potter, who coordinates work at the reserve said: “The Friends of Langlands Moss LNR are delighted to welcome Aileen Campbell MSP along with the Butterfly Conservation Bog Squad and look forward to working with them over the next few months.”



Butterfly Conservation Scotland has been managing a peatland nature reserve for several years at Wester Moss near Stirling, in conjunction with the owners, Stirling Council.

Sara Green, Bog Squad Project Officer

[sgreen@butterfly-conservation.org](mailto:sgreen@butterfly-conservation.org)

# Centre for Ecology and Hydrology (CEH)

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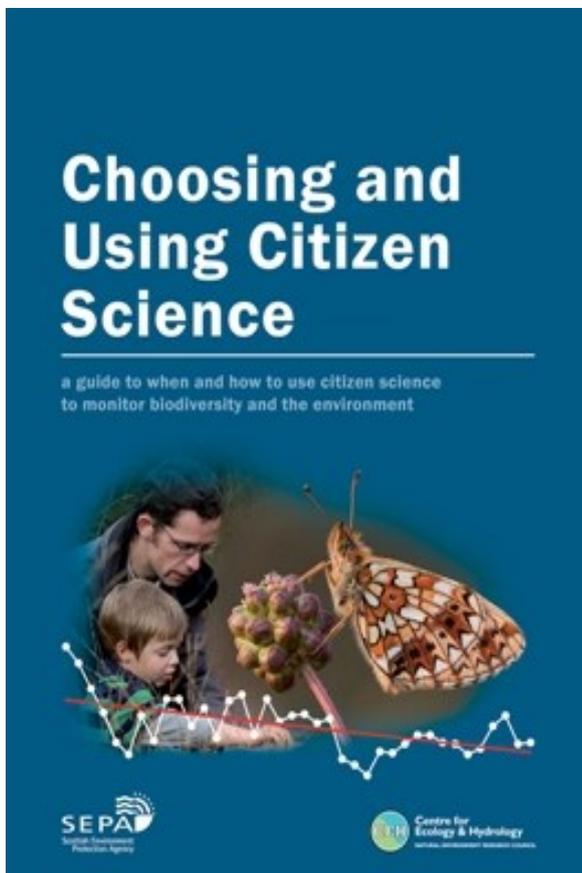
A new free practical guide covering when and how to use citizen science for monitoring the environment launched on the 8th may 2014. The guide is a toolkit aimed for people who are thinking about running a citizen science project. It will help them explore the advantages and disadvantages of different citizen science approaches.

The guide has been produced by scientists from the Centre for Ecology & Hydrology (CEH) who were funded by the Scottish Environmental Protection Agency (SEPA) to draw on their expertise of citizen science and environmental monitoring to produce the guide.

The user-friendly guide was developed from an initial project which developed a 'strategic decision framework' to help SEPA's scientists decide when citizen science was appropriate and how it should be used. The 'strategic decision framework' report was published simultaneously.

Lead author of the guide Dr Michael Pocock, senior scientist at CEH, said, "We quickly realised that the work we'd carried out had relevance far beyond SEPA's staff and so decided to produce a user-friendly version of the guide available for anyone to download."

The guide helps people to think about whether and how they should be doing citizen science, and is the sequel to another guide published by CEH and the Natural History Museum in 2012 which provided best practice about actually doing citizen science. To date that guide has been downloaded by over 5000 people across the world and has been very positively received.



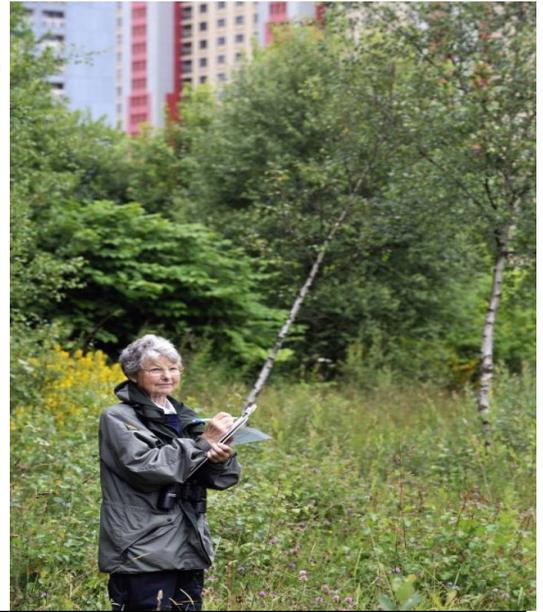
Dr Michael Pocock added, "We realised that although our 2012 Guide to Citizen Science had success across the world, the sheer diversity of citizen science was still confusing to many newcomers. We produced the latest Guide to help people decide how to begin their citizen science journey."

James Curran, chief executive officer of SEPA said, "We know that people all over the country are keen to get out and about, in towns, cities and in the countryside and on the seashore, and to get to know their environment. There is no better way than helping agencies like us in making observations on the environment, and through citizen science, also learning more about their environment and how to care for it. It's fun, interesting and valuable. This Guide is going to be ground-breaking in releasing that potential."

## New free practical guide covers when and how to use citizen science for monitoring the environment (con't)

Ian Bainbridge, Head of Science at Scottish Natural Heritage (SNH) said: "Scotland has a fantastic record in citizens monitoring the state of our wildlife. Citizen science is increasingly vital for monitoring the health of our environment and this guide will help a much wider range of organisations to judge where citizen science can help."

Dr Helen Roy, a co-author of both CEH's citizen science guides, said "I am inspired by citizen science and the value of the contributions from so many people, and I hope that these guides encourage even more citizens and scientists to develop their own amazing projects."



### **Citizen Science – volunteer engagement in environmental monitoring – Sharing Good Practice**

Awareness of the benefits of citizen science is very much in vogue at the moment. It was therefore timely that a Sharing Good Practice event on volunteer engagement should be held at Battleby Conference Centre on 8<sup>th</sup> May 2014. The event was organised by a partnership between SNH, SEPA, the Field Studies Council, Biological Recording In Scotland, The Conservation Volunteers, Scottish Consortium on Rural Research and the British Trust for Ornithology.

Bringing people together from across the UK, the event set out to learn from the experience of others and to look to the future. Both aims were met with excellent speakers and workshops on a range of topics including the types of project which lend themselves to citizen science, developing citizen science capacity, technical innovations and conducting long-term surveys.



A memorable conclusion reached following research by CEH into the types of citizen science projects currently underway is that "there are no discrete "types" of projects"! An indication perhaps of the sheer diversity of work undertaken by volunteers.

The speakers addressed some of the challenges to data collection, filling geographic gaps, motivating volunteers and providing support materials.

A notable development was the launch by SEPA and CEH of the "[Guide to Choosing and Using Citizen Science](#)".

The presentations are currently available to download on the [SNH website](#).

Friends of the Earth, organisers of the UK's first nation-wide bee count hope a new smartphone app will create a buzz among the nation's citizen scientists. They hope thousands of people will log their sightings in order to give scientists a vital insight into the health of bee populations. There is growing concern about wild bee numbers, as many species have recorded a serious decline in recent years.



The survey's organisers hope thousands of people will submit their sightings. The app - developed by charity Buglife, Friends of the Earth and retailer B&Q - allows users to report the species, number and location of bees they spot between now and the end of August. The submissions will provide data to the National Biodiversity Network, which collates data from a wide range of national, regional and local organisations in order to provide a comprehensive overview of UK wildlife.

"The data that people collect will do an important job to help scientists fill in the blanks about where bees are thriving and where they are in trouble," explained bumblebee conservation expert Prof Dave Goulson from the University of Sussex.

Andy Atkins, Executive Director of Friends of the Earth, added: "The great thing is that you do not have to be an expert, everyone can get involved and be part of the generation that helps save our bees."

Participants can also submit their data on the [Great British Bee Count website](#).



FOE

# Cairngorms Futurescape TreeFest 2014

Futurescapes is about facilitating landscape-scale conservation – homes for nature that are bigger, better and better-connected. In the Cairngorms there is 60% of the 1% left of the full historic extent of the Caledonian Forest. You can go to places where you are surrounded by the Caledonian forest in Strathspey especially, where it is easy to forget that if you go over the other side of the hill just out of sight,



there may be very little for miles upon miles. It is about the forest re-finding its place in the landscape and peoples hearts.



What we have is fantastic, and to celebrate and offer the opportunity to experience the wonder of the native woods of the Cairngorms, Futurescapes is co-ordinating 9 days of celebration across the Cairngorms – 15 events led by 12 organisations from Perthshire in the south, Strathspey in the north and Aberdeenshire in the east. There is an event for everyone

and the dates for your diary are 26 July to 3 August. The full programme and more information can be viewed at: <http://www.rspb.org.uk/futurescapes/cairngorms/>

Or contact : [hebe.carus@rspb.org.uk](mailto:hebe.carus@rspb.org.uk)



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# Diary Dates

**16th September 2014:** Overseas Territories Group Conference 2014. Lessons to be Learnt from Invasive Species Mitigation and Management in the British Overseas Territories. Venue—Royal Astronomical Society, London. <http://www.cieem.net/events/716/overseas-territories-group-conference-2014>

**2nd-3rd October 2014:** [Biodiversity Science Conference](#). Protecting Scotland's Biodiversity: Monitoring in action. Venue—Royal Botanic Gardens Edinburgh. This is a joint meeting organised by the Science and Technical Group of the Scottish Biodiversity Strategy, the British Ecological Society, and the Chartered Institute of Ecology and Environmental Management, and co-sponsored by the RSPB Centre for Conservation Science Registration for the meeting will open in early July

**11th-12th November 2014:** Annual CIEEM Conference. Progress in Effective Habitat Restoration, Translocation and Creation. Edinburgh venue tbc. <http://www.cieem.net/events/675/progress-in-effective-habitat-restoration-translocation-and-creation>

## 50th ISSUE

