

It's time to unearth our conservation heroes

Entries now open for the Nature of Scotland Awards, says Kirsty Chalmers



When you venture out into nature you never know what you're going to come across. Turn over a fallen branch in the woods or dip your hand into a rockpool at the beach and you'll soon realise there's a wealth of wildlife waiting to be discovered, if only you look for it.

The same can be said of Scotland's nature heroes – the people working tirelessly to save threatened species, enhance green spaces in local communities and connect more children to the natural world. You may not get to know who they are or hear about their vital work unless someone shines a spotlight on it. That's why, each year, RSPB Scotland launches a search for the brightest, most passionate and dedicated unsung heroes of wildlife conservation with the Nature of Scotland Awards – to find and celebrate those people doing great work for our precious natural heritage.

Entries opened on 13 March and there are nine categories to apply for: RSPB Species Champion, Marine Conservation, Political Advocate of the Year, Corporate, Youth and Education, Innovation, Community Initiative, Food and Farming, and Nature Tourism.

Scotland is home to some of the most special species and habitats in the UK, from golden eagles, red squirrels and rare Atlantic oak woodland to great yellow bumblebees, the vast expanses of peatland in the Flow Country and internationally important seabird colonies. However, there are growing challenges such as climate change, which are putting the country's wildlife and wild places at risk. The dedication and hard work of Scotland's nature heroes is now more important than ever in the battle to protect and enhance our natural world.

In previous years, our wildlife champions have included the creators of community and biodiversity gardens, bringing inspirational green spaces to previously disused or industrial plots of land; a project to create more habitat for marsh fritillary butterflies on farms and agricultural sites; and a group of fishermen and harbour staff

who volunteered their time to tackle the problem of marine litter, which kills thousands of seabirds, fish and mammals each year.

The Nature of Scotland Awards have also recognised schools that are bringing conservation to their classrooms and nature back to their school grounds, businesses that support and champion the protection of wildlife and habitats, politicians who have brought the fight for our environment to the Scottish Parliament and initiatives established to protect white-tailed eagles, red squirrels, capercaillie and black grouse. If you or someone you know is doing something similar, or even something better, then RSPB Scotland wants to hear from you! It could be your efforts we're celebrating at the Nature of Scotland Awards this year.

For 2017, we are replacing the Politician of the Year Award with a new Political Advocate of the Year Award, which will recognise an individual who has had a significant impact on public policy for the benefit of nature.

Entry to the awards is free and the RSPB is looking for applications from community groups, individuals, schools, businesses, the farming community, teachers, tourist attractions, political campaigners and other organisations working to benefit the environment. An evening Parliamentary Reception will be held in September to unveil the Nature of Scotland Awards shortlist and the winners will be announced in November.

So, get your thinking caps on and nominate someone who's dedicated to environmental work, or submit your own project and tell us what you're doing to protect nature!

The closing date for the Nature of Scotland Awards 2017 is Monday 12 June. You can get more information and submit an application at www.rspb.org.uk/natureofscotland

Kirsty Chalmers, Projects and Events Officer, RSPB Scotland.



Count on us to get wildlife information



Out in the countryside, volunteers are helping gather vital statistics on Scotland's fauna, writes Dr Dave Parish

It can be up close and personal, or at a distance through binoculars, or even relying on sound rather than sight. However it is done, counting in whatever form remains a staple for those researching Scotland's flora and fauna.

At just about any time of the year researchers from the Game & Wildlife Conservation Trust are out on the hill, or in fields and woodland, or in a backroom over a dissected carcass – and counting something.

Knowing how many you have of anything is important, especially if you are monitoring its success, analysing the threat it may present or estimating whether you can take a sustainable harvest. So the Game & Wildlife Conservation Trust is doing this across a whole range of species including red and black grouse; grey partridge; mountain hare and brown hare; lapwing, curlew and other waders; songbirds; rabbits; earthworms; gut parasites; moths, and more.

For many years the Trust has been involved in annual counts using pointing dogs over grouse moors to establish the breeding success of red grouse, with their populations susceptible on an annual basis to wet springs and late cold snaps and snow. Right up until final counts at the end of July there is often no clear picture of what the coming season will hold, and our surveys can throw up significant variations by region across Scotland depending on factors such as the impact of the weather, or disease.

In the Uplands the Trust is also engaged in a joint three-year study with the James Hutton Institute and Scottish Natural Heritage, surveying mountain hares to arrive at more accurate population densities. A part

of this project involves trialing different methods to allow effective gathering of data including collecting dung, lamping, thermal imaging and daylight walking of transects.

At the Game & Wildlife Demonstration Farm at Auchnerran the Trust, among a number of projects, is undertaking work involving waders, notably lapwing, curlew and woodcock. Whilst lapwing surveys involve monitoring numbers of nests and displaying male birds, woodcock surveys are carried out for short periods at dusk in early summer. Male woodcock are promiscuous and therefore may display at one location before moving on to display at another on another day. These aerial displays, known as "roding", are best monitored by multiple observers recording information simultaneously in order to avoid double counting.

The grey partridge element of the EU-funded four-year PARTRIDGE project involves a synchronised system of transmitting the call of a cock partridge at 11 predetermined points on 1km transects and then recording the responses. The Trust in Scotland is undertaking this research on two sites, one in Fife and the other in Midlothian/East Lothian with six transects at each location. The target is for four surveys at each site, timed for around half an hour after sunset. All this data needs to be gathered before the end of March when cock and hen birds will have paired up.

An aim of the project is the improvement of on-farm biodiversity through new techniques, and with the knowledge that improving habitat for certain indicator species will result in positive impacts on a much wider scale. The PARTRIDGE initia-



PICTURE: PHIL WILKINSON

tive also involves breeding bird surveys and hare counting with, for this work, hares being counted by torchlight (lamping) just after darkness falls over transects totaling at least 5km at each location. Numbers of other species such as deer, foxes and rabbits are recorded too. The project encompasses a total of ten demonstration sites in Europe with all partners counting in a standardised way to ensure robust comparisons can be made for data collected across all locations (see www.northsearegion.eu/partridge for more information).

In Fife, GWCT is also monitoring

moths, as a result of which in June last year the Trust detected the arrival of the diamondback moth, with 132 trapped in just one evening when none at all were recorded in 2015. The moths were blown in from Europe on easterly winds and also reported on farms further south. Their arrival was alarming because the larvae of this species can develop a resistance to insecticides and can have a devastating impact on brassica species, oilseed rape, peas and other crops.

Counting means that what the Trust and others do is targeted at the right place at the right time. How numbers

change is at the root of how we can inform others, including the Scottish Government, to make the right decisions and to provide the right levels of support in the right areas.

We are often looking for volunteers to help with our survey work so if you enjoy the crepuscular hours of dawn and dusk and would like to see and hear some of the best of Scotland's wildlife contact GWCT Scotland on 01738 551511 or e mail scottishhq@gwct.org.uk

Dr Dave Parish, Senior Scientist, Scottish Lowland Research, Game & Wildlife Conservation Trust.

↑ Given the importance of grouse shooting to the economy it is vital to keep an eye on numbers



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Scotland's new Climate Change plan calls on farming to play part in meeting our targets

We must knuckle down and work together, says Pete Ritchie

Farming and weather go together. The never-ending summer of 2006, the big freeze of 2010, and widespread flooding in 2012 all had a major impact on Scottish farmers, and only one was good. But these aren't just one-off events – the data clearly shows that our weather pattern is changing.

In the last 50 years we've seen a five-week increase in the growing season, a 1°C rise in average temperature and 45 per cent more summer rainfall. That's already a challenge for many farmers, having to take cattle off ground that's now too wet or ending up with soil compaction after harvest.

It's much worse for farmers in developing countries, with fewer resources and poor infrastruc-

ture. Herders in Somaliland have lost half their cattle and can no longer feed their children because the water management system is no match for the interminable drought. Bijumon Kurian, fairtrade organic coffee producer from Kerala, India, was in Scotland last month describing how reduced rainfall is cutting coffee yields, making survival marginal for the 5,000 small farmers in his co-operative.

But farming is not just on the receiving end of climate change: it's also driving the process. In Scotland, agriculture accounts for almost a quarter of all our greenhouse gas emissions – mostly not from those big tractors but from methane produced by cattle and sheep, and nitrous oxide from the way nitrogen interacts with the soil.

Farming, therefore, has a responsibility to do its fair share towards reducing greenhouse gas emissions.

Scotland's new Climate Change plan calls on farming to play its part in meeting our climate targets here in Scotland – alongside all other sectors of the economy – as part of the global effort to tackle climate change.

Key measures in the plan include expecting farmers to test their soil regularly and put on lime when needed. This improves the efficiency of fertiliser use, so farmers can save money and also reduce emissions of nitrous oxide, a greenhouse gas. This is, like loft insulation, a no-brainer: and while progressive farmers all do this, many farmers are still heating the sky and wast-

ing money. The Stop Climate Chaos Coalition wants soil testing to be a compulsory measure.

There's a plan to look nationally at how we can use nitrogen more efficiently, as more than 40 per cent of all the nitrogen in the system escapes into the air and water.

The plan also proposes more agroforestry – combining trees with pasture, and trees with crops increases overall yields as well as helping biodiversity and water management.

Scotland's soils contain 60 times as much carbon as all the trees and plants growing on it, so managing the soil well is vital.

Over decades, soil carbon levels have reduced in our arable soils and we could do more with organic and regenerative farming methods to maintain and increase the carbon

stock in soils. These are just a few of the measures and ideas proposed by government in the plan. It's all part of the government's ambition to make Scotland a world leader in green farming.

Pete Ritchie is a member of Stop Climate Chaos Scotland and Executive Director of Nourish Scotland

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