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Citizen Science

It makes you feel good!

Every day, people across the UK head out into the natural world armed with smartphones, or simply a notepad, to record and monitor our changing wildlife. The information they gather and send off through a host of apps and websites is helping UK researchers answer big questions

about biodiversity and our environment. The impact of climate change, pollution, urbanisation or the spread of non-native invasive species are all issues simply too far-reaching for a team or even a whole country of researchers to monitor without the help of an army of devoted citizen scientists.

Volunteering by people from all walks of life is of enormous value to environmental research in the UK. But what are the benefits to those taking part? Why do they choose to do it?

A report by the Scottish Environmental Protection

Agency took a detailed look at what people get out of participating in citizen science. The results were clear: amateur botanists and birdwatchers who give up their time benefit alongside UK science. Overall, researchers found that taking part in citizen science projects left participants feeling more connected with nature, and nine out of ten respondents saw a connection between getting involved and a boost to their health and wellbeing. The same proportion came away with a greater understanding of how they can protect and enhance their local environments.

In research by the UK Environmental Observation Framework, the top reason given for taking part in citizen science projects was the belief that it will benefit the natural world, with more than half of all respondents agreeing that they are motivated by helping wildlife. And, it seems, wildlife may be helping them. An increasing body of research is backing the idea that nature – whether getting out and about or simply looking at a greener view from a city window – is good for us. Researchers at the University of Exeter made headlines with their finding that being able to see wildlife near to your home is good for your mental health. They found that people living in neighbourhoods with more birds, shrubs and trees are less likely to suffer from depression, anxiety and stress.

If you'd like to contribute to UK research, help protect wildlife, feel connected to nature and your local environment, lift your mood, improve your fitness, and perhaps many more benefits besides, see the fact box on this page to find out how you can get involved in citizen science.

Get involved!

- The NERC Centre for Ecology & Hydrology (CEH) has been home to the Biological Records Centre since 1964. For guidance and to download free apps to take part in projects monitoring plants, land and freshwater species including pollinators and birds of prey, and levels of air pollution in your area, visit: www.ceh.ac.uk/citizen-science
- Take part in projects such as spotting garden earthworms to assess soil health to searching for seaweeds on the UK coast through the Natural History Museum: www.nhm.ac.uk/take-part/citizen-science
- Zooniverse is an online portal which collates citizen science projects across a range of disciplines worldwide. Find out what you can get involved in here: www.zooniverse.org/projects



A year in citizen science

iRecord is just one of the apps supported by CEH and provides an easy portal for users to upload their records on a range of wildlife.

In 2016:

- More than **365,000** records were uploaded – that's over a thousand a day!
- The app's 'top recorder' submitted more than **17,000** records.
- The harlequin ladybird was the most recorded species – **4,163** records!
- Approximately **6,500** people used the app to submit wildlife records.
- More than **14,000** different species were recorded on the app, with **95,523** pictures uploaded.
- The species group with the most records was moths, with **69,132** observations.
- Flowering plants was the group with the most different species recorded: **2,141**.
- The busiest weekend was June 5-6: National Garden BioBlitz survey saw people record wildlife in their garden over a 24-hour period generating more than **12,000** observations!

With thanks to Dr David Roy at CEH for providing the statistics.

“You wouldn't do it if you didn't care”



Anne Haden has always enjoyed wildlife, but only became involved with recording the plant life of Jersey after she retired from her career as a primary school teacher. “Living in Jersey, nature is all around you,” she says. “But earlier in life I didn't have much time for my own interests. I was working and bringing up children. It was only after I retired that I started developing my interest in botany.”

Nearly four years on, Anne is well-established as the Botanical Society of Britain and Ireland (BSBI) Recorder for Jersey and Secretary of the Botany section of the Society Jerseyise. Her records have provided data on the spread of *Carpobrotus*, an invasive South African vine commonly known as ‘pigface’ or ‘hottentot’. Anne's participation in the National Plant Monitoring Scheme has brought her into correspondence with NERC Centre for Ecology & Hydrology (CEH) researcher Dr Oliver Pescott.

Like many amateur botanists, Anne came to the field with much enthusiasm but relatively little expertise, and admits that it was no walk in the park to get started. “It was quite a challenge to pick up,” she says. “Plant species can be very much alike, so it takes practice. You need to know where

to look. But I always enjoyed the challenge. Once I've identified the correct plants and made a record, I know where I can keep an eye on them.”

Many of Jersey's plants are rare and protected by law, and members of the BSBI on the island are keen to ensure they are monitored. This year, they are aiming to survey all the threatened and protected plants. It's a big job, and will require hours of voluntary work from people like Anne and her team. “Why do I do it? That's a good question,” she says. “It does provide something exciting for me. When I joined that first meeting at the BSBI, I remember thinking they were all such jolly nice people.”

She adds: “I don't think anybody could go out and record if they didn't care somehow. Some plants are rare and difficult to find: when you spend time seeking them out and recording, I think you can't help but care about looking after wildlife.”

Anne agrees that taking part in her environmental recording provides a boost to wellbeing. “I think it does, that's absolutely true. There is something about enjoying nature, and a better quality of life. How do you measure that? I don't know – perhaps it can't be measured.”

If you are interested in taking part in environmental monitoring in Jersey, visit bsbi.org/channel-isles to get in touch with Anne Haden. Find out more about the National Plant Monitoring Scheme here: www.npms.org.uk

To read the Scottish Environmental Protection Agency report, *The impact of Citizen Science activities on participant behaviour and attitude* visit: <http://bit.ly/2sBzaF0>

The UK Environmental Observation Framework is a partnership of the major public funders of environmental science, including NERC. To read its 2016 report on *Understanding Motivations for Citizen Science* visit: www.ukeof.org.uk/resources/citizen-science-resources