



# Introduction to Citizen Science

## What is it?

- Citizen science is the research and collection of data about the natural world (usually but there are some exceptions) by members of the public.
- We can contribute data via photographs, surveys, counts and monitoring events. Sometimes we are asked to do this for specific dates or seasons and some projects are ongoing all year.
- The data we collect usually contributes to a collaborative project led by specialist scientists or organisations.
- The results are generally made available to the public through reports, interactive maps or websites of photographs and tables of information.

## Why is it important for nature?

- Citizen science increases the **range and amount of information** that can be gathered. It allows scientists to draw data **from different locations, contexts and social groups**.
- **Research can take place in the real world** rather than at artificial times and places.
- The **cost of important research is reduced** because we are volunteering our time and energy.
- The huge scale of the data provided by citizen science creates a **clearer and more accurate picture** of an issue.
- It is a way to **monitor changes and compare important data** over time.
- This can make a **more convincing case for action**. It also means any **action can be more effectively targeted**.
- We can benefit from **training and guidance** which is often provided by experts..
- Citizen science **engages us, helps us learn, makes us more aware, can make us care more and be more likely to take our own action** for nature.

## The CEP air quality citizen science project

- Aims to measure particulate matter pollution from heather moor burning each season between 1<sup>st</sup> October and 15<sup>th</sup> April.
- Find out how much pollution there is from smoke that drifts into villages and the inhabited dales.
- We are making particulate matter sensors that record constantly and upload data to <https://sensor.community/en/> and are looking for suitable locations.
- Needs a mains socket indoors (for a usb supply), wifi reception, and a route to a wall outside where it can be mounted. This can be via an openable window.
- If interested leave contact details at CEP Launch Event or email [cep.nature.recovery@gmail.com](mailto:cep.nature.recovery@gmail.com)



## Some easy citizen science projects to get you started

### Royal Society for the Protection of Birds – Big Garden Birdwatch

- Annual event Friday – Sunday in the last weekend of January. Takes one hour
- Gives insights into how many of our most common birds are faring. Many are declining.
- Keep a running total of the largest number of birds of the same species seen in your garden
- Chart provided of the most common species you are likely to see. Easy for children.
- Download chart and submit results at [www.rspb.org.uk/birdwatch/](http://www.rspb.org.uk/birdwatch/)

### Field Studies Council with Royal Society of Biology – Signs of Spring

- Climate change leads to changes in the seasons. It is important to track changes to the signs of spring to understand potential impacts of changes in the environment
- Participants to record their first local sightings of any of ten signs of spring
- Bluebells, Bumblebees, Butterflies, Daffodils, Dragonflies / damselflies, Frogspawn, Hazel catkins, Ladybirds, Lawn – first cut, Snowdrops. Note weather conditions and record the temperature.
- Record sightings and see map of the results so far at [www.field-studies-council.org/signs-of-spring/](http://www.field-studies-council.org/signs-of-spring/)

### Royal Society for the Protection of Birds (and partners) – Swift Mapper

- Records breeding swifts helping with understanding of reasons for decline in UK of more than half since 1995. This enables local conservation action to be focussed in the right places.
- Records and maps occupied nests, previously occupied nests, nest boxes and screaming parties.
- Observe and record between April and August at [www.swiftmapper.org.uk/](http://www.swiftmapper.org.uk/). See maps there.

### Buglife – Bugs Matter Survey

- Counts the number of insect splats on vehicle number plates as a marker of insect abundance
- Can be done for any vehicle journey from 1<sup>st</sup> June to late summer using a Smartphone.
- Numbers sampled have declined 64% in UK between 2004 and 2022
- A good indicator of success of conservation work at the landscape scale.
- Submit splat count and photo at [www.buglife.org.uk/get-involved/surveys/bugs-matter/](http://www.buglife.org.uk/get-involved/surveys/bugs-matter/)

### Butterfly Conservation – Big Butterfly Count

- Annual event for 3 weeks (plus weekend at start) – 12<sup>th</sup> July – 4<sup>th</sup> August 2024

- Spend 15 minutes in a sunny spot and count the UK's most common butterflies and day flying moths. Help understand long term declines and influence of weather.
- Submit results and see records from last year at <https://bigbutterflycount.butterfly-conservation.org/>

More Citizen Science today at stall and talk:-



**North York Moors**  
National Park

Supporting  
**Nature**  
Recovery