Birdwatchers of the world: Unite and take environmental action
27 April 2022, by Jonathan Smith

During the COVID-19 lockdowns, an increase in people taking an interest in birdwatching revealed our deep need to connect with nature and community during stressful times. It demonstrated the link between engagement with the natural world and social activism.

In the 18th century, birdwatching (or ornithology) was mostly an activity for privileged country gentlemen and members of the clergy. Now, in the 21st century it has been embraced by people from all walks of life.

"Birds are fascinating because they can easily move around—they connect people watching them in their gardens to things that are happening elsewhere," said Finn Arne Jørgensen leader of the EnviroCitizen project.

The hobby can be taken up very easily and has the potential to generate a deep knowledge over time through informal collaborations with fellow ornithologists (also fondly known as "twitchers").

Jørgensen and the EnviroCitizen team were interested in the ways citizen science cultivates environmental citizenship. They studied how birdwatching activities across Europe help to develop a broader awareness and love of nature.

Seen as one of the origins of citizen science, birdwatching has historically drawn members of the public to participate in scientific studies, such as in the annual Garden Bird Count, where members of the public are encouraged to register all the birds they see in their garden on a particular weekend.

Yet, there's more to ornithology than meets the eye. "Human beings have spent thousands of years observing and thinking about birds. They allow us to tell stories about ourselves and the world we live in," said Jørgensen.

The act of birdwatching develops a sense of environmental citizenship in participants. Uniquely, the EnviroCitizen doesn't just follow the environmental science, it conducts humanistic research.

"Many citizen science projects tend to focus more on the science than the citizens, but we concentrated on the volunteers," said Jørgensen, who is professor of environmental history at the University of Stavanger, Norway.

"In our case, amateur ornithologists, who engage in science and community building through their love of birds and their living environment, and nature in general."

Birding organizations and NGOs sometimes go on to develop social capital which can be leveraged to secure space for the natural environments. It also brings together young people and more mature twitchers to share insights and transfer knowledge.

Crowdsourced
The OptimCS project tries to combine the power of crowd-sourced scientific activity with artificial intelligence (AI) to protect biodiversity and improve ecological conservation.

The data collection power of citizen science is enormous, but as citizen science at this scale is a new development, there is a great deal of inefficiency in this process.

The project's goal is to improve the quality of data being collected and analyzed by citizen scientists.

"We found that participants are highly motivated to contribute to conservation," said Henrique Pereira, coordinator of OptimCS.

"Environmental citizenship," said Pereira, "is the development of a feeling of allegiance in people for the protection of nature through engagement in activities like citizen science."

The approach will bring order to the unruly data landscape. "In future, citizen science and various forms of AI will work together to help further our understanding of biodiversity."

**Local action**

This is precisely what young citizens are doing in the Crowd4SDG project. It uses crowd-sourcing and AI to monitor progress towards the UN's Sustainable Development Goals.

The project has particular focus on climate issues and climate resilience. It is also providing and maintaining a citizen science tool kit so anyone can launch their own CS project. Follow the link to learn more from the Crowd4SDG website.

The initiative is currently testing a new model for innovation to help young people become social entrepreneurs for climate action. They create their own projects, starting with a competitive pitch and taking it to the working prototype stage.

"In one case four Nigerian students introduced solar powered water pumps into their communities," said project leader Francois Grey. "Using data gathered from crowd sourcing tools developed by the project to show where the pumps are most urgently needed."

**Sense of justice**

A passion for protecting the environment provides the driving force behind political activity at the local level. It is also driven by a sense of justice.

Environmental citizenship forms according to Jørgensen, when an awareness of sustainability issues drives a sense of duty "because many environmental problems and their effects exist at global scales yet require local community responsibility."

By investing time and effort, and by working together with companies, local authorities and the NGO sector, people contribute to a more sustainable, environmentally friendly way of living.

"More than just recycling or turning off the lights," said Jørgensen, "Environmental citizenship requires new ways of thinking and acting."

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