

# Advancing Citizen Science in Alberta

## What is Citizen Science?

Citizen science is the active participation of members of the public in monitoring and scientific research. Participation can range from collecting data to all aspects of the scientific process, including development of research questions, data collection, analysis, evaluation and reporting. Citizen science occurs at many geographical scales from local programs to global initiatives.

*"The public participates voluntarily in the scientific process, addressing real-world problems in ways that may include formulating research questions, conducting scientific experiments, collecting and analyzing data, interpreting results, making new discoveries, developing technologies and applications, and solving complex problems."<sup>1</sup>*

<sup>1</sup> Holden, J. (Sept. 30 2015). Addressing Societal and Scientific Challenges through Citizen Science and Crowdsourcing [Memorandum]. Washington, DC: Executive Office of the President Office of Science and Technology Policy.

## Benefits of Citizen Science

Contributing to scientific research is only one benefit of citizen science, additional benefits include:

**Scientific Significance:** more boots on the ground greatly expands the geographic and temporal scale of data collection; improves researchers' ability to detect rare phenomena and to efficiently classify large volumes of data. This advances capabilities to provide timely (i.e. early-warning) and more comprehensive environmental data (i.e. air, water, land) and biological scales.

**Scientific Literacy:** enabling citizens to learn about and participate in the scientific process enhances their understanding of the value of science. Scientific literacy provides important context for addressing relevant societal challenges and can lead to increased civic engagement in environmental conservation and protection.

**Societal Relevance:** broader participation in environmental science and monitoring programs provides an avenue to help identify environmental concerns, issues and knowledge gaps, and inform research priorities. Engagement of the public in citizen science can lead to a better understanding and uptake of science and monitoring outcomes.

## Citizen Science in Alberta

Through citizen science, Albertans are able to successfully contribute to data and information gaps and inform environmental decision making. In Alberta, there is a growing effort to engage the public in science and environmental monitoring and the Alberta Environment and Parks (AEP) [Knowledge for a Changing Environment, 2019-2024 Science Strategy](#) recognizes the role of citizen science in addressing data and information needs about the environment.

In support of this, the [Citizen Science Principles of Good Practice](#) were co-developed by AEP and the Miistakis Institute, with guidance and input from external organizations, researchers and practitioners to guide good practice and appropriate application of citizen science in Alberta.

## Get Involved Today

Across Alberta there is a growing network of citizen science, with programs such as [LakeWatch](#), the [Alberta Volunteer Amphibian Monitoring Program \(AVAMP\)](#) and [Pronghorn Xing](#). AEP additionally supports or leads a number of citizen science programs, including [GrizzTracker](#) and [NatureLynx](#).

## For more information

Contact Alberta Environment and Parks Office of the Chief Scientist at [AEP.OCS@gov.ab.ca](mailto:AEP.OCS@gov.ab.ca).

Learn more at [environmentalmonitoring.ab.ca](http://environmentalmonitoring.ab.ca)

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