

Volunteer Involvement to Strengthen Data Collection

A guidebook for participatory science in the Great Lakes basin

- **The International Joint Commission (IJC)** helps Canada and the United States prevent and resolve issues over shared waters on 5,525 miles of boundary, including the Great Lakes.
- Participatory science is one of the solutions to existing data collection needs, but there is often a lack of shared understanding and methodology for data collection.
- The IJC **Great Lakes Science Advisory Board's *Great Lakes Participatory Science Guidebook*** will connect volunteer scientists with best practices and professional science.

Data collection guidance for participatory science

Standardized participatory science guidelines can improve Great Lakes science

Researchers and government agencies run environmental monitoring programs throughout the Great Lakes and St. Lawrence River basin. Participatory science, also known as citizen science, is monitoring conducted, in whole or in part, by volunteer scientists. Participatory science can help provide data at a fraction of the cost, and generates information that supports future research efforts and management decisions.

Clear, uniform methodologies can help strengthen volunteer scientists' data collection. The Great Lakes Science Advisory Board is developing a ***Great Lakes Participatory Science Guidebook*** to provide guidance for volunteer scientists to enhance data collect efforts.

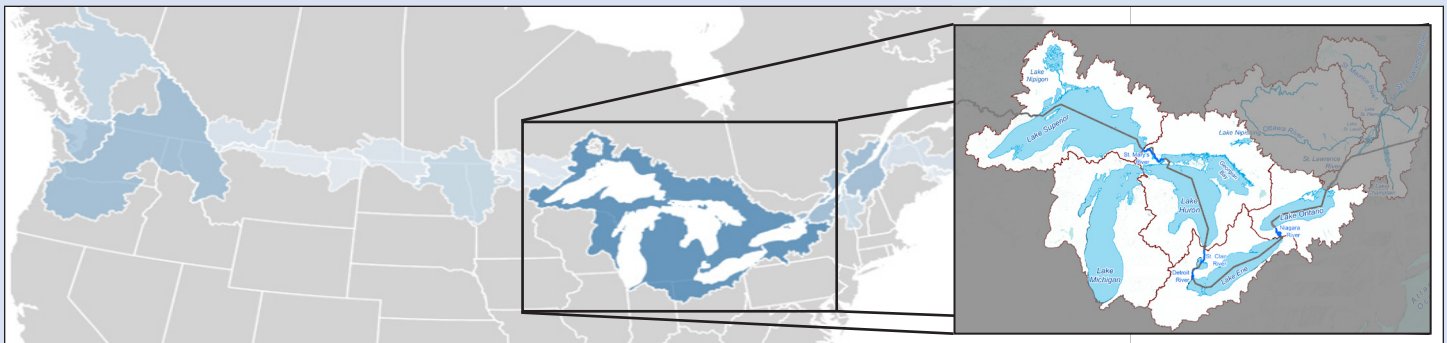
The user-friendly ***Great Lakes Participatory Science Guidebook*** will provide tools to develop a robust and reliable participatory science network. It will be a guide on data collection methods for volunteers and organizations so that end users, such as agency and academic researchers, policy makers, nongovernmental organizations and others, can use participatory science data with confidence.

Contact the IJC about this project: mark.burrows@ijc.org

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Where will this work impact?



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Great Lakes Participatory Science Guidebook

Great Lakes Science Advisory Board

Prior to developing this *Guidebook*, the board identified resources and best practices for participatory science. That research noted that current participatory science efforts can often become fragmented, issue- or area-specific products that are less accessible to inform decisions about the Great Lakes. Many groups develop their own approaches of data entry, analysis, visualization and reporting using a variety of sources and best practices. Efforts to align participatory and professional science can ultimately enhance the collective impact of participatory science. The board's *Great Lakes Participatory Science Guidebook* will be adaptable to help connect volunteer scientists with practitioners to identify areas of shared interest and promote opportunities for regional collaborations.



A Girl Scout records data on a field trip with the Stone Laboratory at The Ohio State University. Credit: Ohio Sea Grant

The Great Lakes Water Quality Agreement

Under the Great Lakes Water Quality agreement, the Great Lakes Science Advisory Board advises the IJC on scientific matters related to the Great Lakes basin ecosystem, including advising on how to improve the effectiveness in achieving the Agreement's objectives. The *Great Lakes Participatory Science Guidebook* aims to improve effectiveness by providing tools to enhance data collection with coordinated participatory science efforts.

About the International Joint Commission

The IJC was established in 1909 under the Boundary Waters Treaty to help Canada and the United States prevent and resolve disputes over shared waters. The IJC's responsibilities include reporting on progress made by the governments under the 2012 Great Lakes Water Quality Agreement. The Great Lakes Science Advisory Board provides advice and guidance on scientific research to the IJC and its Great Lakes Water Quality Board.

The Great Lakes ...



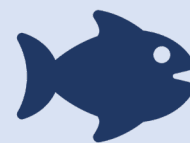
contain roughly
20 percent of the world's
fresh surface water



support a
US\$6 trillion (CAD\$7.5
trillion) regional economy



are a source of
drinking water for
36 million people



are home to
4,000 species of
plants and animals



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