



Developing Guidelines and
Data Protocols for Citizen
Science Projects across the
Great Barrier Reef Region

Project Background

- Through citizen science, members of the public generate volumes of data, mostly related to natural sciences.
- Designing a citizen science program or project takes careful and rigorous planning of the investigation processes such as selecting appropriate questions, methods, analysis, and knowledge dissemination approaches.
- The most well-designed citizen science initiatives also give equal diligence to understanding the interests and needs of potential participants often requiring a co-design approach. Additionally, such initiatives have also given ample investment into understanding how to design enticing and intuitive social experiences, learning opportunities, and technologies for respective community groups.
- Citizen science that does not consider all these factors often results in low levels of community adoption, challenges associated with data quality, and limited social impact.

The project will encompass a suite of activities to strengthen scientific, social, cultural, and economic outcomes from citizen science across the Great Barrier Reef (GBR) region.



Project Objectives

Led by the Australian Citizen Science Association (ACSA), the project's goal is to improve the quality of information collected by citizen science projects in the GBR region. The four objectives are to:

- 1) Provide guidance to scientists and citizens on the principles that should guide development and implementation of sound citizen science projects to improve success.
- 2) Develop guidelines on data protocols and standards for taxon and ecosystems directly or indirectly connected to the GBR region.
- 3) Negotiate and establish a list of scientists who can provide input and advice to citizen science projects in the GBR region.
- 4) Publish guidelines and scientist list on the ACSA website for easy access.



Activities

- Desktop review of current (or recent) citizen science in the Great Barrier Reef region
 - Collate and analyse projects for current protocols and guidelines
 - Review Sustainable Development Goals, methodologies & project drivers
- Webinar
- Survey
 - SurveyMonkey
 - Semi-structured interviews with ~10 participants
- Develop guidelines on Citizen Science for the GBR region, cognisant of CS core principles and best practice approaches
- Create a list of scientists willing and able to provide strategic advice to CS project leaders.
- *Supported by a 'Critical Friends Group.'*



Not all Citizen Science is Citizen Science

ACSA's Ten Principles of Citizen Science

1. Citizen science projects actively involve citizens in scientific endeavour that generates new knowledge or understanding.
2. Citizen science projects have a genuine science outcome.
3. Citizen science provides benefits to both science and society.
4. Citizen scientists may participate in various stages of the scientific process.
5. Citizen scientists receive feedback from the project.
6. Citizen science, as with all forms of scientific inquiry, has limitations and biases that should be considered and controlled for.
7. Where possible and suitable, project data and meta-data from citizen science projects are made publicly available and results are published in an open access format.
8. Citizen scientists are suitably acknowledged by projects.
9. Citizen science programs offer a range of benefits and outcomes which should be acknowledged and considered in project evaluation.
10. The leaders of citizen science projects take into consideration legal and ethical considerations of the project.



Citizen Science increasing Stewardship for the Reef?

“As a field, citizen science has yielded many positive outcomes for ecological research, conservation, policy and scientific innovation, in addition to a range of individual outcomes such as knowledge gain and increased stewardship (Ballard et al., 2018; C. Phillips et al., 2018; Ponti and Craglia, 2020).”

Yaela Golumbic, 2024



Get on board!

- Help inform the development of the guidelines and the next generation of Citizen Science for the Great Barrier Reef.
- Participate in the survey.
- Volunteer to be interviewed as part of the semi-structured interviews.
- Review draft guidelines as they develop.
- For scientists – nominate to be a Citizen Science Advisor.



Acknowledgements

We thank you as Citizen Science leaders and participants and acknowledge the huge effort that goes into supporting and sustaining Citizen Science across the Great Barrier Reef at the local, Reef and international scales.

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Australian Government

**Department of Climate Change, Energy,
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**Australian
Citizen Science
Association**

For more information

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ACSA - a community that supports, develops and informs citizen science.



**Australian
Citizen Science
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