

Citizen Science in Antarctica

Travelling to Antarctica with an IAATO operator gives you and your guests the opportunity to participate in citizen science and to contribute valuable information to the scientific community for a better understanding of the Southern Ocean and Antarctica.

What is citizen science and why should we participate?

Citizen science is scientific research conducted (in part) by non-professional scientists. It is a way to utilize the power of thousands of travellers around the globe to observe, record, and report on natural phenomena. This is particularly important in remote and difficult to access destinations, like the Southern Ocean and Antarctica.

Research in these areas is extremely expensive and limited by their remoteness and seasonal accessibility. IAATO members assist by providing platforms for citizen science, harnessing the enthusiasm of Antarctic visitors. Many IAATO operators encourage Antarctic travellers to collect data through citizen science initiatives led by expedition team experts usually in collaboration with professional scientists.

These platforms are managed by expedition teams comprised of highly trained individuals often from research and/or education backgrounds. This extends the reach of data collection and provides engaging learning opportunities for guests who gain a greater understanding of the region in which they are travelling. This heightened level of understanding can invoke the desire to become Antarctic Ambassadors, returning home to champion for the protection of one of our planet's most fragile ecosystems.

IMPORTANT NOTE: It is recommended that you discuss permitting or authorisation needs with the project lead for any citizen science project in advance of the Antarctic season, engaging with your National Competent Authority as necessary. Please remember to add citizen science activities to your Post Visit Report form.

Choosing citizen science projects

In the section 'Supporting Science' in the IAATO Field Operation's Manual, you will find descriptions of several projects. Coordinated by respected organisations, the projects aim to have far-reaching impact and excite polar travellers. You are strongly recommended to read the project information sheets carefully to ensure they will align with your operator's programme and IAATO, Antarctic Treaty System and other requirements. For further information about each project, please visit the project websites or contact the project leads.

Additional information is also available through The Polar Citizen Science Collective (www.polarcollective.org) who offer training for individual citizen science projects and work closely with:

- the scientific community to expand the range of available citizen science projects;
- operators to implement citizen science projects during Antarctic voyages.



How to deliver successful citizen science

The Polar Citizen Science Collective advises that citizen science works well when it is considered as an activity in the same way as kayaking or camping and incorporated into the operator's programme. It is recommended to assign one expedition staff member to act as "Citizen Science Coordinator" for each expedition. His/her primary duties would be to:

- Oversee and coordinate the citizen science programme;
- To discuss the project scheduling with the Expedition Leader;
- Assign "Project Leads" to the individual citizen science projects;
- Ensure data collection protocols are met and data are delivered to respective scientific partners;
- Ensure equipment is cleaned between regions and sampling sites. Refer to Biosecurity Guidelines in the IAATO Field Operations Manual;
- Serve as the go-to expedition staff member for guests interested in participating.



Here are a few tips on how to make citizen science successful during your expedition:

- Consider an introductory power point presentation to introduce the citizen science programme you offer during your expedition.
- Consider creating a citizen science expedition plan; some projects are excellent for sea days, others for in the field, some are site specific, and some can be done throughout the entire trip.
- Create a citizen science notice board, where you post information about each project (additionally other relevant information from the scientific community).
- Post citizen science activities in the daily programme.
- Mention citizen science activities/findings at the daily recap.
- Invite guests to an end of trip citizen science recap where you summarize the projects you ran during the trip, show preliminary results, and discuss the concept of being an Antarctic Ambassador.
- Include citizen science information in the post-trip information package that guests receive, such as information about the projects you offered including important project websites, or about science projects guests can participate in when back at home