



IAATO is supporting Science

Travelling to Antarctica on board an IAATO vessel gives us operators as well as our guests the time, access and resources to participate in citizen science and to contribute valuable information to the scientific community for a better understanding and protection 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 travelers 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 its remoteness and seasonal accessibility. The scientific community studying these regions is therefore often facing data scarcity. The Antarctic Peninsula, which is the main operating area for the majority of operators, is also considered a hotspot of climate change, putting the polar tourism industry in a unique position: our expedition vessels make fantastic platforms for science. With extended access to these remote regions and expedition teams often equipped with research backgrounds, we have the potential to participate and engage our guests in citizen science projects and to provide valuable data to the scientific community.

By having guests participate in these programs and by using citizen science projects to educate guests about the Antarctic ecosystem, they gain a greater understanding of the region in which they travel. 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.

In these following pages you will find information gathered by the Polar Citizen Science Collective on how to run a successful citizen science program on board, as well as a selection of a multitude of projects from different disciplines that have been proven to work well on board. The Polar Citizen Science Collective www.polarcollective.org is a non-profit that works collaboratively with the industry and the scientific community to develop and implement citizen science projects on board tour vessels.

Everyone is invited to participate – it is fun, engaging and educational. Let's make a difference together.

IMPORTANT NOTE: None of the projects listed in this document require special permitting; if you are considering a citizen science project that involves collection of any specimen, be sure to check special permitting requirements prior to initiating the program on board.

How to make citizen science successful on board

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

- Oversee and coordinate the citizen science program;
- 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; and
- 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 voyage:

- Consider an introductory power point presentation to introduce the citizen science program you offer on board (many projects listed in the following provide power point material).
- Consider creating a citizen science voyage 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 voyage.
- Create a citizen science notice board, where you post information/flyers about each project (additionally other relevant information from the scientific community).
- Post citizen science activities in the daily program.
- 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 (e.g. www.penguinwatch.org/).

Project overview

In the following you will find a brief description of the various projects supported by IAATO and the Polar Citizen Science Collective. For detailed information about each project please refer to the downloadable resources provided via IAATO (specific links are mentioned in each project description).