

# SHORT PROJECT OVERVIEW of PL Citizen Science Program

We have different types of projects, some are done while on the ship (SHIP), some while on shore (SHORE), some either while on the ship or on shore and some during zodiac cruises (CRUISE). This here is just to give you a very quick overview of the variety of projects we have. Please also refer to the detailed description of each project at the end of this manual to familiarize yourself with the scope and needs of each project.

## 1. Southern Ocean water sampling (SHIP)

*Lead scientists:* Allison Lee, PhD candidate & Maria Vernet, Scripps Institute of Oceanography

*Contact:* [info.polarcollective@gmail.com](mailto:info.polarcollective@gmail.com)

By measuring the surface water temperature and salinity during sea days on crossings between Ushuaia and the Peninsula as well as South Georgia and the Peninsula we are helping to study long-term temperature and salinity trends of the Southern Ocean.

## 2. Secchi Disk (CRUISE)

*Contact:* web: [www.secchidisk.org](http://www.secchidisk.org)

email: [info.polarcollective@gmail.com](mailto:info.polarcollective@gmail.com)

By measuring the Secchi Depth we help scientists around the world to monitor phytoplankton and to understand how phytoplankton will react to a changing climate.

## 3. Castaway (CRUISE)

*Lead scientists:* Allison Lee, PhD candidate & Maria Vernet, Scripps Institute of Oceanography & Prof. Dr. Bettina Meyer, Alfred Wegener Institute Helmholtz Center for Polar and Marine Research

*Contact:* [info.polarcollective@gmail.com](mailto:info.polarcollective@gmail.com)

By deploying the castaway we are measuring a vertical temperature and salinity profile of the upper ~30m of the water column. This project will help to build up a long-term database of temperature and salinity trends of the Fjord Systems on the Antarctic Peninsula. In addition these profiles deliver important parameters to be measured when conducting the FjordPhyto and the salp project.

## 4. NASA Globe Observer cloud observations (SHIP/SHORE)

*Contact:* [info.polarcollective@gmail.com](mailto:info.polarcollective@gmail.com)

By observing and recording cloud cover & type timed to NASA satellite fly-overs, we can help scientists understand how surface and air temperature are affected by cloud cover, and how clouds will respond to a changing climate.

## 5. Seabird Surveys (SHIP/SHORE)

*Lead scientist:* Michael Schrimpf, PhD candidate, Stony Brook University

*Contact:* [info.polarcollective@gmail.com](mailto:info.polarcollective@gmail.com)

We complete at-sea and on-shore bird survey to study the distribution, population status and breeding events of birds in the Southern Ocean and along the Antarctica Peninsula.

## 6. Rat Watch (SHORE)

*Contact:* South Georgia Habitat Restoration [info@sght.org](mailto:info@sght.org) or [info@fosgi.org](mailto:info@fosgi.org)

We assist in the monitoring stage of the South Georgia Rat Eradication project by keeping an eye out for rats and signs of rats, including track marks and droppings.

**\*\*NOTE\*\*** Since SG is now considered “rat free” this is not an active program now. However, if anyone does see any evidence of rats please take pictures, GPS and follow these guidelines.

### **7. Happywhale - Marine Mammal Identification (SHIP/Shore/Cruise)**

*Lead scientist:* Ted Cheeseman; web: [www.happywhale.com](http://www.happywhale.com) or

*Contact:* [ted@happywhale.com](mailto:ted@happywhale.com) or [info.polarcollective@gmail.com](mailto:info.polarcollective@gmail.com)

We collect photographs of marine mammals to help scientists learn more about their distribution, migration, population status and behavior.

### **8. Salp Project - Pilot Study**

*Lead scientist:* Prof. Dr. Bettina Meyer, Alfred Wegener Institute Helmholtz Center for Polar and Marine Research

*Contact:* [annette.polarcollective@gmail.com](mailto:annette.polarcollective@gmail.com)

*Pilot study:* we will collect baseline data of salp distribution around our landing sites and also collect a few specimens for genetic species determination. In doing so we hope to help scientists understand the recent increase in salp abundance on a circumpolar scale around Antarctica and how this might be linked with a changing climate.

### **9. FjordPhyto**

*Lead scientists:* Allison Lee, PhD candidate & Maria Vernet, Scripps Institute of Oceanography

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By collecting phytoplankton samples in fjord systems along the Antarctic Peninsula, we help scientists to provide a seasonal picture of phytoplankton abundance, composition and distribution throughout the growth season (from October to March), as well as how phytoplankton is influenced by (increasing) meltwater inflow from glaciers.