

THE HEARD ISLAND PROJECT

Discovering Life in the Extremes

This is a brief summary of The Heard Island Project: Discovering Life in the Extremes. The Project is centered on a scientific expedition to Heard Island, Territory of Australia, in the Southern Ocean, during March/April, 2016. The website for this project is www.heardisland.org.

Heard Island is a large (20x30 km, 368 km²), subantarctic island lying at 53°S, 73°E, nearly 1000 nautical miles from Antarctica and more than 2500 nautical miles from Africa and from Australia. It has a 2745-m active volcano, about a dozen fast-moving (and retreating) glaciers, large populations of seals, penguins, and seabirds, and extensive areas of mosses and grasses. While about 300 species of plants and animals have been recorded from the island, estimates indicate that perhaps 200 more species, mostly in the size range 0.1-10 mm, remain to be discovered. These missing species are a major part of the island's biodiversity; they are crucial to our understanding of the extreme ecosystem.

The primary goal of the expedition is to discover and document the missing species in order to complete the known biodiversity of this extremely isolated, extremely limited ecosystem. The compelling reason for the expedition emerges from two facts:

- ➤ Heard Island has no recognized human-introduced species; and
- ➤ Heard Island is extremely sensitive to the global climate.

This fortuitous (and possibly unique) combination offers a remarkable opportunity to separate the effects of natural climate change from anthropogenic effects. Completion of the species list will enable more quantitative tests of the effects of global climate on polar regions. Thus, the primary motivation for the Project is to take advantage of the opportunity to obtain primary data crucial to our ability to predict and manage the future of the Earth's biosphere.

The project is being organized by Cordell Expeditions (CE), a private nonprofit scientific research organization located in Walnut Creek, California. Details about the organization are available at www.cordell.org. This project follows the successful 1997 expedition to Heard Island organized and carried out by Cordell Expeditions. Some aspects of the present project are similar to that project, in particular the extent of planning and preparation, the emphasis on safety and security of the island and its resources, and the extent of documentation. Details about the 1997 expedition are available in the book VKØIR Heard Island, which can be downloaded from the Project website.

For further information, please contact the Expedition Organizer/Leader.

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