



SCAR Subglacial Antarctic Lake Environments (SALE) Scientific Research Program

Subglacial aquatic environment exploration is a new paradigm for research in Antarctica. These isolated aquatic environments, which were considered a curiosity just a few short years ago, are now recognized as fundamental features that influence a broad range of important processes. The new knowledge to be garnered by studying these environments from various perspectives will lead to a new and fuller understanding of how the earth system functions. Antarctic subglacial aquatic environments are now recognized as continental-scale phenomena on a par with lower latitude river, stream, lake and wetland hydrological features. They are one of the last unexplored frontiers on our planet.

Key Achievements:

SALE's achievements are both scientific and programmatic, with one advancing scientific understanding of these environments and the second facilitating and developing an international SALE community, both are important missions for a SCAR Scientific Research Program.

Scientific Achievement #1 - Subglacial accumulations of water are common features beneath thick ice sheets.

Scientific Achievement #2 - Outburst discharges of subglacial water have repeatedly occurred over geologic time and are an on-going process that influences the dynamics of the overlying ice.

Scientific Achievement #3 - A spectrum of subglacial aquatic environments exists.

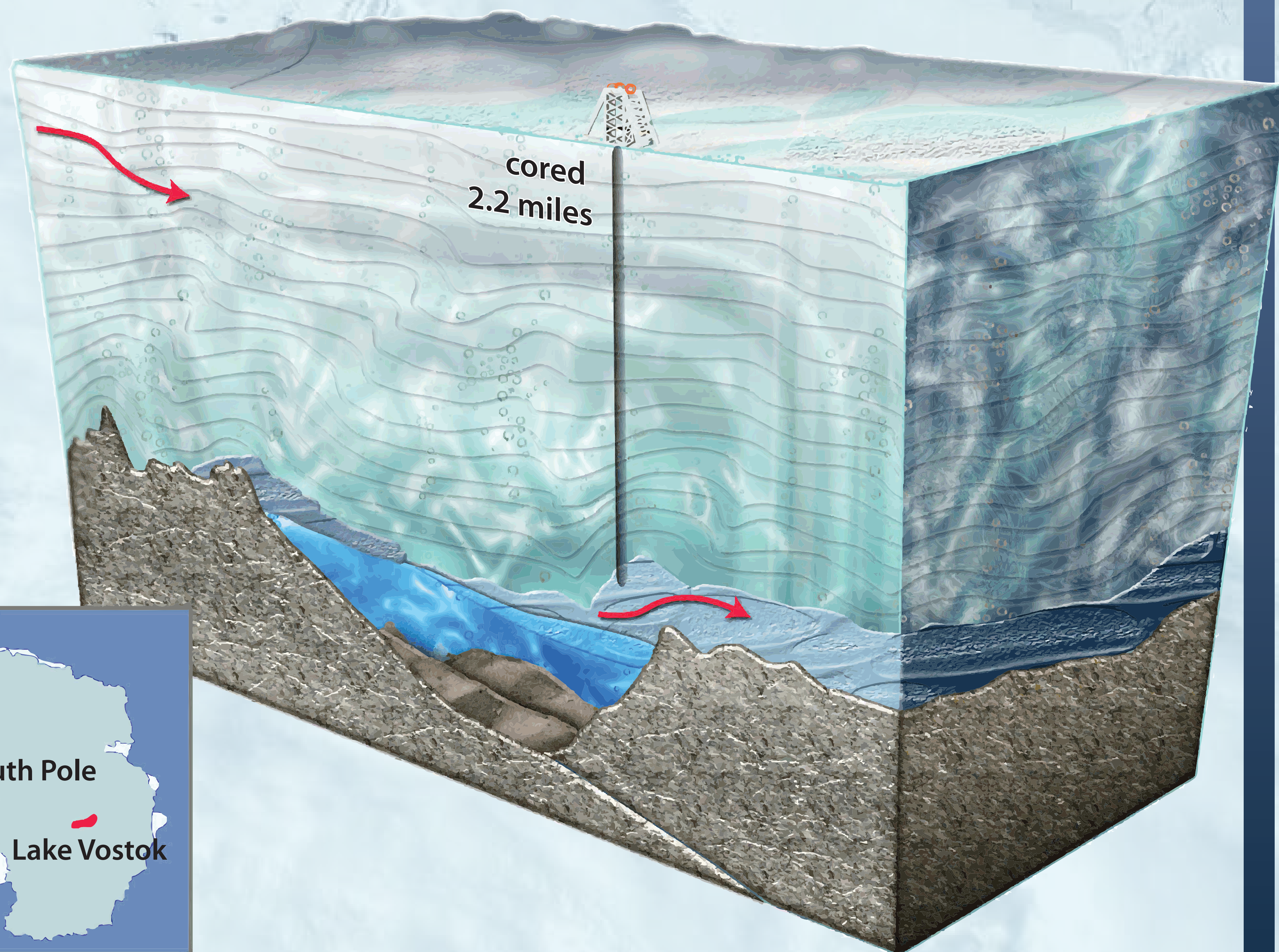
Programmatic Achievement #1 - Building of a SALE community through workshops, meetings, and sessions at scientific meetings.

Programmatic Achievement #2 - Identification of major scientific and technological goals for SALE research and exploration through active engagement of the community.

Programmatic Achievement #3 - Provision of the framework for the US National Academies report on environmental stewardship of subglacial aquatic environments.

Programmatic Achievement #4 - Regular meetings that serve as a forum for the discussion of science and technology amongst national programs.

Programmatic Achievement #5 - Education of the public through extensive and sustained coverage of SALE science in the lay and scientific press.



Images Courtesy of National Science Foundation

<http://scarsale.tamu.edu>