

Lake Vostok life to be studied

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U.S. researchers say they will analyze microorganisms from a vast Antarctic lake to determine how life adapts to extremely harsh environments.

University of California-Riverside Assistant Professor of Environmental Sciences Brian Lanoil is leading the project that will investigate life found in Lake Vostok, the world's seventh largest lake -- a Great Lakes-size body of fresh water trapped under a 2 1/2-mile-thick polar ice sheet.

The goal is to reconstruct the genomes of the microorganisms that live in the lake to determine how they have been able to withstand bitter cold, total darkness, low nutrients and high oxygen levels during evolutionary and geologically significant lengths of time.

The lake is estimated to have been buried under ice for at least 15 million years and is thought to have been isolated from the external environment during the last 1.5 million years.

Lanoil will work with Craig Cary at the University of Delaware and Philip Hugenholtz at the Lawrence Berkeley National Laboratory. They will compare their results with a similar study conducted by Sergei Bulat at the Russian Academy of Sciences.

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