

Graduate Student Opportunity to Study Microbial Ecology in Antarctica at Montana State University

Dr. John Priscu is seeking a Ph.D. level student to work on the continuing McMurdo Dry Valleys LTER program (MCM III) entitled "The Role of Resource Legacy on Contemporary Linkages Between Biodiversity and Ecosystem Processes in a Cold Desert Ecosystem: The McMurdo Dry Valley LTER Program". The project will begin in April 2005 and extend through March 2011. The student will be required to spend several months each year in Antarctica and the remainder of the year based at Montana State University. Background information on the Priscu Research Group can be found on the following websites:

<http://www.homepage.montana.edu/~lkbonney/>
<http://mcm-dvlakesmo.montana.edu/>
<http://salegos-scar.montana.edu/>

Serious students should contact John Priscu (jpriscu@montana.edu)

An overview of the project follows:

The McMurdo Dry Valleys LTER (MCM LTER) program is entering its third funding cycle. Research in this cycle will continue to investigate the MCM as a climate sensitive, end-member ecosystem, and begin to focus on the roles of legacy and extant process on contemporary biodiversity and ecosystem structure and function. The student will be expected to use modern approaches to examine the relationships between biodiversity and biochemical processes in the permanently ice-covered lakes in the MCM. These results will be linked to parallel studies in the surrounding glacial, stream and soil landscapes. An overarching theme of MCM III is to understand not just how the environment controls the diversity of organisms, but also how diversity itself controls the functioning of ecosystems. The McMurdo Dry Valley lake systems lend themselves to answering this questions in a unique way. Given the isolation, the paucity of metazoans, and the evolutionary history and resultant geochemistry of these lakes, they offer a unique experimental arena to study the interplay of microbial diversity and ecosystem function. MCM III will work closely with the dry valley lake Microbial Observatory to form a diverse group of scientists. This integrated approach will point the way towards a broader synthesis of the biogeosciences.