



First Circular

MicroPerm Workshop **An international workshop to initiate the circumpolar integration of permafrost microbiological studies**

November 8-10, 2010, Potsdam, Germany

On behalf of the organising committee we are pleased to introduce the first workshop series on permafrost microbiology. MicroPerm aims at establishing a research network bringing together early career scientists with expert researchers in the field of permafrost microbiology. The workshop is meant to provide a forum for all scientists interested in permafrost microbiology and to work towards a project integrating results and methods relevant to that topic. Travel grants will be available for early career scientists.

Rationale and Objectives

The polar regions play a key role in the Earth's climate system for two main reasons. First, global warming is predicted to be most pronounced at high latitudes. Second, one third of the global carbon pool is stored in ecosystems of the same northern region. The consequences of a warming of the upper permafrost are potentially overwhelming, and could lead to a dramatic increase in the microbial activity and carbon decomposition in permafrost environments, with subsequent release of greenhouse gases. Microbiologists have largely focused on the local scale, trying to link local climate variables, permafrost characteristics and microbial diversity, but there does not exist a circum-arctic research network or infrastructure. Permafrost microbiology is practically a new field of science which attempts to assess the interrelations between permafrost features and temperature and the abundance and the diversity of microbial communities, their genetic resources, their function in regard to material fluxes and their reaction to environmental changes. MicroPerm is a project that seeks to establish a network of scientists working in the field of permafrost microbiology. MicroPerm will organize a process leading to the establishment of a circum-arctic study programme on permafrost microbiology under the auspices of the International Permafrost Association (IPA).

Topics and Issues

We identified the following issues to be most relevant to this workshop, but would welcome your suggestions for additional topics.

- Microbial diversity and biogeography of permafrost environments
- Metabolic activity at subzero temperature
- Mechanisms of microbial adaptation and survival in permafrost environments
- Permafrost astrobiology
- Plant-microbe interaction
- Microbial communities and global change
- Carbon and nitrogen turnover
- Microbial gene pool of cold environments
- Biotechnology
- Data management and feed into global microbiological databases

In addition to these topics of discussion, the workshop will focus on defining a workplan for MicroPerm driven by science questions and heavily relying on international collaboration. To do so, the workshop will be divided in working groups focusing on the following issues:

- The active layer and beyond: What depths are most relevant to investigate microbiological metabolism, function and community structure?
- In what way can the MicroPerm project provide a platform to integrate knowledge on microorganisms?
- What framework can the MicroPerm project propose to ensure that field studies are undertaken in a consistent manner at site level?

We also welcome your suggestions on the formulation of issues that can be tackled by the MicroPerm project. Use the form made available on the registration site to provide your thoughts.

Programme

A second circular, to be done in August 2010, will give a preliminary programme and will include details about travel, visa and accommodation.

Schedule

Workshop: 8-10 November 2010

Venue: Alfred Wegener Institute for Polar and Marine Research, Potsdam, Germany, Science Park Albert Einstein, Building H

Registration

The workshop is open to everybody interested in attending, and all attendees are invited to present a poster. Poster sessions will be embedded by plenary keynote lectures. Deadline for registration and abstract submission is Friday, 10 September 2010. To register for the workshop, please complete the form at: <http://www.microperm.org>

Student Support/Travel Grant

Accommodation: The MicroPerm workshop supports students and young scientists by arranging low cost accommodations. To use this service, please send an email to:

contact@microperm.org.

Travel grants: MicroPerm has funds available for young scientists to support travel expenses to attend the MicroPerm Workshop. Details of the application procedure will be published in the second circular. We urge you, however to register now to maximize your chances to receive one of the stipends.

Contact (organizing committee)

General questions related to the workshop:

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