

The 6th **International Conference on Polar and Alpine Microbiology** was held from 6. 9. to 10. 9. 2015 in the University of South Bohemia in České Budějovice, Czech Republic (<http://polaralpinemicrobiology2015.prf.jcu.cz>)

Aim and Scope

This meeting was the continuation of the highly successful meetings previously held in Rovaniemi 2004 (Finland), Innsbruck 2006 (Austria), Banff 2008 (Canada), Ljubljana 2011 (Slovenia) and Big Sky 2013 (USA). The conference brought together the scientific community for discourse on the latest in all aspects of cold-living microorganisms and their role in polar and alpine environments. The conference in České Budějovice (Czech Republic) provided an opportunity to share ideas and build research collaborations addressing the latest developments in microbiology in polar and alpine habitats.

Sponsors

The conference was sponsored by *the International Arctic Science Committee, the Scientific Committee for Antarctic Research* and by *the Faculty of Science, University of South Bohemia*.

Participants

191 colleagues attended the conference (Austria 12, South Korea 7, Japan 5, Rumania 2, France 5, China 4, Netherlands 2, Finland 4, Norway 3, Australia 1, Malaysia 1, South Africa 2, Equator 8, Belgium 8, Indie 2, Spain 2, UK 19, USA 9, Russia 16, Israel 1, Brazil 6, Germany 12, Denmark 5, New Zealand 1, Argentina 4, Canada 1, Italy 10, Switzerland 3, Iceland 3, Poland 7, Slovakia 4, Pakistan 1, Slovenia 1 and Czech republic 20).



The conference was divided into 8 sessions:

- Polar/alpine microbiology and environmental change: past, present and future
- Microbial diversity and evolution
- Cold physiology and cryobiology
- Supraglacial, glacial and subglacial microbiology
- Polar/alpine cyanobacteria
- Polar/alpine eukaryotic microorganisms
- Biotechnology in low temperatures
- Astrobiology of icy worlds

There were many high quality oral and poster presentations.

Best oral presentations of early career scientists:

1. Stefanie Lutz – Biogeography and functionality of microbial glacial surface communities across the Arctic
2. Guillaume Tahon – Diversity of *cbbL*, *nifH* and *pufLM* genes in soil around Princess Elisabeth Station, Sør Rondane Mountains, Antarctica.
3. Lorrie Maccario – Microbial life in the arctic snowpack photochemical reactor.

Best poster presentations of early career scientists:

1. Bjorn Tytgat – Biogeographic patterns in Antarctic lacustrine prokaryotes.
2. – 3. Oliver Müller – Changes in structure, activity and metabolic processes of microorganisms in thawing permafrost soils from Svalbard.
2. – 3. Roksana Majewska – Epiphytic diatom communities from Terra Nova Bay and Cape Evans (Ross Sea) – a synthesis.

Special thematic issue on Polar and Alpine Microbiology (preparation under progress)

Editors: Josef Elster, Rosa Magesin, Dirk Wagner and Max Häggblom

FEMS Microbiology Ecology invites submissions to a special issue on the ecology of microbes in cold environments to coincide with the Sixth International Conference on Polar and Alpine Microbiology taking place September 6 to 10, 2015 in České Budějovice, Czech Republic. This thematic issue is focused on the microbial ecology of Earth's cryobiosphere. Microorganisms, representing of all three domains of life, have successfully colonized these cold environments that span from the Arctic to the Antarctic, from high mountain-range environments to the deep ocean, and include permafrost soils, marine sediments, sea and glacial ice. There is thus considerable interest in understanding the adaptations and activities of these microorganisms, as well as the ecological interactions of communities active in these habitats. High altitude and

high latitude regions on Earth are experiencing rapid changes in climate, with impacts on biogeochemical cycles and environmental change. Clearly, knowledge of the distribution, biodiversity and functional roles of microorganisms inhabiting polar and alpine environments is essential to our understanding of ecosystem processes in a changing climate.

Minutes from conference



