

# External presentation

AARHUS UNIVERSITY

DEPARTMENT OF ENVIRONMENTAL SCIENCE

Frederiksborgvej 399, 4000 Roskilde

Monday 29 February 2016, 14:00 in The Pavilion

“Microbial community functioning in the cryosphere”

**Speaker:**

Catherine Larose, Université de Lyon

**Abstract:**

The cryosphere is a fundamental control on the physical, biological and social environment over a large part of the Earth's surface. It is an integrator of climate variability, providing visible signals of change, and yet, it is also an actor, intrinsically involved in global cooling through a number of feedback mechanisms.

The cryosphere environment is not only undergoing changes due to climate shifts, but also to long-range transport of contaminants and increased human activity.

Among the most critical, yet under-studied components of the cryosphere are the microbial communities inhabiting frozen ecosystems such as ice and snow.

Given their breadth, it is surprising how little we know about their functioning, beyond questions related to water storage, mass balance and albedo. Recently, we've been able to demonstrate that snow and ice act as habitats for a diverse community of microorganisms that are metabolically active throughout the entire year and able to interact with their surrounding environment and with each other.

Here, we present recent findings on microbial communities from Arctic ice and snow and focus on how they function in response to environmental changes such as atmospheric deposition of chemicals and particles. Understanding these processes will help predict how microbial communities will evolve and adapt to global change.

**Host:**

Head of Department, Professor Carsten Suhr Jacobsen,  
Department of Environmental Science, Aarhus University

External guests interested in attending the presentation should email  
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