

Geomicrobiological seminar

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Arctic microbial diversity and connectivity in the coastal margin of the Last Ice Area

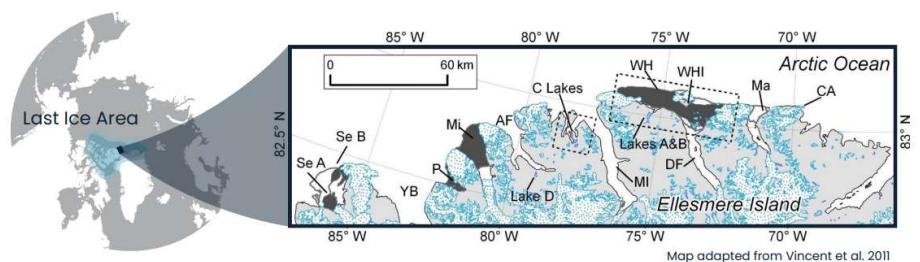
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Abstract

Warming is leading to sea-ice attrition on the Arctic Ocean, and the northern coast of the Canada and Greenland, now referred to as the Last Ice Area (LIA), is expected to be the last to maintain summer sea ice by 2050. This region of thickest and oldest ice will act as a refuge for marine organisms who depend on ice, but is also important for the terrestrial biome, as the continued presence of ice along the coast of the LIA allows for persistent cold conditions on land. The terrestrial margin of the LIA is home to diverse ice-dependent lakes which are dominated by rich microbial assemblages and which are also responding to change at varying rates. This talk will focus on the microbial ecology of four ice-dependent lakes in the margin of the LIA along a gradient of impact, from a stable, glacier-associated lake to an epishelf lake on a collapsing ice shelf, and show the vulnerability of the unique freshwater microbiomes of the LIA margin.

Thores Lake, Lake A, Ward Hunt Lake and Milne epishelf lake along the terrestrial margin of the Last Ice Area, which are home to rich microbial assemblages.



Map adapted from Vincent et al. 2011



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