

Metadata Details

Title

Survival of mesophilic health significant bacteria in the fjord sediment, water and nearby tundra and role of mesophilic intruders in the dissemination of antibiotic resistant genes in the Arctic environment

Science Keywords

Category	Oceans
Topic	Marine Biology
Expedition Year	2018-2019
ISO Topic	Oceanography

Summary

Abstract

With prevailing warming trends in the Arctic it is anticipated that warm water currents will further extend their tongue into the arctic fjords along with their indigenous microflora, which will be allochthonous to the Arctic environment. Similarly fast retreating ice cover over tundra will provide ideal feeding ground for foraging species, especially the migrant birds from distant tropical places. The most important ones in the Svalbard are Barnacle goose (*Branta leucopsis*, Svalbard population) and Arctic Tern (*Sterna paradisaea*). Highly productive seas in the polar region during spring and summer seasons also attract several marine birds into the fjords. These invasions of microbial community especially the bacteria will have implications on diversity, nutrient cycles and introduction of health significant mesophiles and antibiotic resistant genes (ARG?s) in the arctic environment. Our studies on diversity of heterotrophic bacteria in the Kongsfjorden has clearly revealed entry.

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