

Initial report to Directorate of Fisheries regarding permit 18.08.2021, 25.08.2021-23.09.2021, Jnr. 21/12086

Synoptic Arctic Survey and the transit of Oden

The aim of the Synoptic Arctic Survey was to investigate biological and chemical parameters in the Arctic Ocean. In connection to the expedition, water samples along the Norwegian coast were collected during expedition transit to Sweden.

Exploring microbial community composition across gradients from polar to temperate waters

Short project description

During transit between the central Arctic Ocean and southern Sweden (Kattegat), IB Oden traveled ~3500 km – covering vastly different marine environments. During this transit, samples to describe changes in microbial community composition were collected. This information is important for generating knowledge on microbial organism distribution patterns over environmental gradients. The focus of the project is on descriptive marine microbial ecology and basic science and has no biotechnological or industrial applications.

Methodology

Water samples were collected three times per day during 2021-09-11 to 2021-09-19 via the continuous water intake on the ship (8-9 m depth). At each sampling occasion, about six liters of water were collected for microbiological studies and nutrient concentration analysis.

IB Oden has sensors installed which were running during the cruise, collecting continuous auxiliary data on water temperature, salinity and fluorescence.

The sampling did not involve any generation of waste material.

Preliminary results

The samples are currently being processed at the University of Copenhagen, Helsingør, Denmark, and Linnæus University, Kalmar, Sweden. Preliminary results indicate that the sampling was successful. Using the generated data, the microbial community will be described and related to environmental variables. The aim is to publish the results in a scientific, peer-reviewed journal.

Contact information

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