

Title: BEST_Algae_data.xls**Authors:**

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Data set overview

The data sheet contains quantitative information on the occurrence of algae in sea ice (bottom 0-2cm segment of ice cores), in the water column (5m depth) and the vertical flux as determined in sediment trap samples (deployed in 5m water depth below sea ice). Details regarding the methodology and complete data overview and analysis are available in the MSc degree thesis of Anna Szymanski at the University of Alaska Fairbanks:
<https://scholarworks.alaska.edu/handle/11122/4824>

Brief methodology

All samples were collected during the spring 2008 and 2009 expeditions onboard the USCG icebreaker Healy as part of the BEST/BSIERP program. Ice samples were collected with an ice corer, and the bottom 0-2cm melted in filtered sea water. Water samples were collected through holes in the ice from 5m depths. Sediment traps were deployed for 4-6 hours. Ice, water and trap samples were fixed with 1% formaldehyde and later analysed by inverted microscope.

Data description

The excel file contains several worksheets. The first worksheets provides name of the stations, sampling data and location. The following worksheets are presenting the data from individual stations.

The spreadsheets of the individual stations are structured in the following manner:

Column A: Name of the species

Column B: Abundance within ice segment (typically the bottom 0-2cm segment), units: cells l-1

Column C: Abundance in water sample from 5m depth. Units:

Column D: vertical flux of algal species determined from sediment trap samples. Units: cells m-2 d-1.

Detailed description of sampling, analysis and discussion of data:

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