

Subproject: Greenhouse gases (CO₂, N₂O, CH₄) dynamics within fjord sea ice

Actual field dates: Mar.5-April 16, 2013

Field site: Kanajorusuit Fjord

Number of man-days in the field: 72

Summary:

The inorganic carbon dynamics within sea ice has been studied using the total alkalinity (TA) and total dissolved (TCO₂) inorganic carbon has been measured within bulk sea ice and in the underlying seawater. The exchange of CO₂ between the ice and the atmosphere were estimated using the chamber technique. CH₄ and N₂O concentrations were also sampled within sea ice and seawater.

Analysis are still on going.

Photos:

Fig.1: Location of the sampling site in the Kanajorusuit Fjord, Greenland

Credit: Brent Else

Fig. 2: Unloading equipment and setting up at the field site.

Credit: Shelley Carpenter

Fig. 3: Nix Geilfus and Odile Crabeck (CEOS) collecting water samples through the ice on Kanajorusuit Fjord

Credit: Shelley Carpenter

Participants:

Nicolas-Xavier Geilfus, Odile Crabeck, Søren Rysgaard

Acknowledgements:

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For more information contact: Nicolas-Xavier Geilfus: geilfus@biology.au.dk

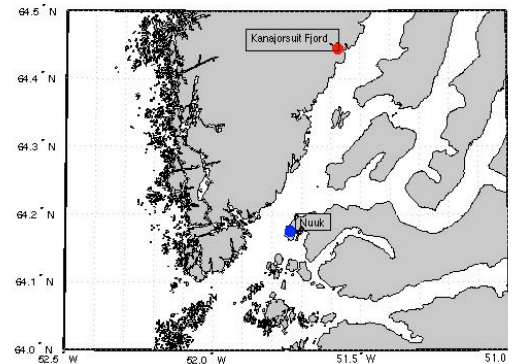


Figure 1



Figure 2

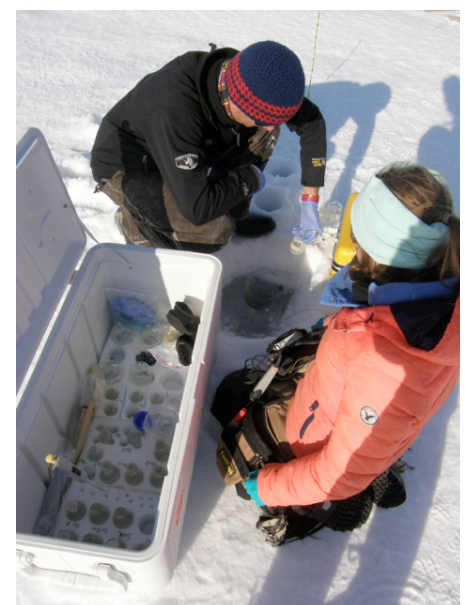


Figure 3