

Subproject: Primary and bacterial productivity around St. Nord and near the ice tongue: impact of the glacier melt

Actual field dates: 7 – 28 August

Field site: Villum Research Station, Station Nord, Greenland

Number of man-days in the field: 21

Summary:

Despite the dynamic of sea ice and weather limiting the navigation around St Nord, we managed to obtain vertical profiles of the water column at some stations far and near the glacier. In addition, one transect was realized along the glacier to sample the surface water. At these stations, the bacterial production, the fragmented algal biomass and the photosynthetic properties of algae were measured. Additional samples were collected to determine nutrients and organic carbon concentrations (DOC and POC), carbon and nitrogen isotopes, bacteria and pico/nanophytoplankton abundance. Our measurements related to the CTD profiles will improve our knowledge of biological and chemical properties around the glacier near St Nord and the influence of melt water on bacterial and phytoplanktonic dynamics, and consequently on the local carbon cycle.

Photos:

Fig.1: In direction of the glacier between icebergs.

Credit: Virginie Galindo

Fig. 2: Sampling close to the glacier. Credit: Virginie Galindo

Credit: Virginie Galindo

Fig. 3: Direct sampling on the Niskin bottle for DOC and nutrients. Credit: Virginie Galindo

Participants:

Virginie Galindo

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Figure 1



Figure 2



Figure 3