

Subproject: The key role of kelp forests in the coastal zone of Greenland and their response to climate change

Actual field dates: 12. – 27. June 2016

Field site: Along the coast around Qeqertarsuaq and Kronprinsend Ejland

Number of man-days in the field: 20

Summary:

We collected macroalgae (*Fucus vesiculosus* and *Ascophyllum nodosum*) from two different sites for temperature tolerance experiments in the laboratory. The algae were exposed to a temperature gradient from 5 to 30 degrees and their response will be compared with that of the same species elsewhere along the geographical distribution range of the species to test for latitudinal differences.

Moreover, we completed the following tasks:

- Collection of sediment samples for eDNA analyses in order to explore the contribution of macroalgae to sediment C-sinks
- Collection of mussels and intertidal algae in tidal pools in order to explore mutualistic relationships between them
- Measurements of O₂, pH and temperature in tidal pools in order to explore natural variability induced by the biota.

Photos:

Photo 1: Caption: Sampling with Porsild in Kronprinsens Ejland

Credit: Carlos M. Duarte

Photo 2: Caption: Outdoor lab by the brook next to the Arctic Station, Qeqertarsuaq.

Credit: Dorte Krause-Jensen

Photo 3: Caption: Sampling tidal pools in Disko Bay credit Carlos M. Duarte

Participants:

AU: Dorte Krause-Jensen

Other : KAUST : Carlos M. Duarte

Acknowledgements:

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Photo 1



Photo 2



Photo 3