

**Workshop on the Baffin Bay and Labrador Sea corridor
with focus on the western Greenland margins**



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buildings 1671-1673

June 15-17, 2016

Wednesday, June 15th

Morning: Arrival of most participants/Dinocyst people to work at microscope

12h30 - Light lunch

Location: Auditorium Building 1671, room 137 (to the right of the main entrance)

13h30 - Welcome by Head of Department (Søren Bom Nielsen)

13h35 - Logistics (Marit-Solveig Seidenkrantz)

13h40 - Overview of past research in the Baffin Bay and Labrador Sea: What makes the Baffin Bay-Labrador Sea so special from a paleoceanographic point of view (Anne de Vernal)

14h00 - Overview on Holocene records along the Labrador Sea margins (Antoon Kuijpers)

14h20 - Overview on Greenland ice sheet dynamics along the margins (Nicolaj K. Larsen)

14h40 - The status of geochemical tracers as (paleo)oceanographical recorders in Baffin Bay and Labrador Sea (Claude Hillaire-Marcel)

15h00 - Coffee break

Location: Building 1673, room 118 (to the left of the main entrance)

15h30 – Results from ongoing projects along the Greenland margins/short presentations (~10 min) and discussion

- Distribution of diatoms along the western Greenland margins (Diana Krawczyk)
- The Greenland fjord environments (Sofia Ribeiro/Audrey Limoges)
- High resolution record of the last 2000 years and Holocene from Disko Bugt (Estelle Allan, Matthias Moros, Henriette Kolling)
- Holocene data from the Nuuk region (Marit-Solveig Seidenkrantz, Ralph Schneider, Janne Repschlaeger)
- The GreenEdge project in Baffin Bay (slides from Jacques Giraudeau)
- Deglaciation from the western Greenland margin (slides from Anne Jennings/John Andrews)

17h00 – Open discussion

Evening free

Thursday, June 16th

Location: Building 1673, room 118 (to the left of the main entrance)

9h30 – Results from ongoing projects along in the Baffin Bay-Labrador sea margins/short presentations (~10 min) and discussion

- Records from deep sea coral (Sam Davin)
- Records from the Newfoundland margins and early Holocene meltwater events in the Labrador Sea (Christof Pearce)
- High resolution records of the late Holocene based on alkenones (Marie-Alexandrine Sicre)
- Records from central Baffin Bay (Rebecca Jackson)
- Geophysics and stratigraphy in the Baffin Bay and Davis Strait (Paul Knutz)
- Petermann project initial results and Greenland history (Alan Mix)
- Others ?

11h00 - Coffee break

11h30– Discussion: Towards assessing the role of the Baffin Bay - Labrador Sea corridor in the ocean-climate system

Moderators: Sofia Ribeiro and Ralph Schneider

What are the key questions paleoceanographers can address from the study of sedimentary sequences (and the important parameters to be reconstructed) ?

- Sea-ice cover? why? which type ?
- Freshwater budget?
- Vertical mixing and deep convection?
- Productivity ?
- Alkalinity, dissolution of carbonates, carbon sequestration?
- Bottom water properties (O₂)? Stratification/convection?
- Others ??

12h30 - Lunch

13h30- Discussion: Tracers and proxies for reconstructing paleoceanographical conditions in the Baffin Bay and Labrador Sea ?

Moderators: Alan Mix and Claude Hillaire-Marcel

What are the usefulness and limitations of the tracers and proxies for reconstructing the important parameters and what should be the step further?

- Biomarkers (Alkenones, IP25, etc.) : Marie-Alexandrine Sicre, Ralph Schneider, Christof Pearce, Henriette Kolling
- Foraminifers (benthic mostly, some planktic...) : Kerstin Perner, Marit-Solveig Seidenkrantz
- Diatoms : Christof Pearce, Diana Krawczyk, Audrey Limoges
- Dinocysts : Sofia Ribeiro, Nicolas Van Nieuwenhove, Audrey Limoges, Jade Falardeau, Estelle Allan, Anne de Vernal
- Sedimentology and physical properties (IRD, magnetic properties, etc.) : Matthias Moros, Dierk Hebbeln

15h00 - Coffee break

15h30 – setting up for video-conferencing and free time for discussion

16h00 – 18h00 VIDEO-CONFERENCE

Moderators: Marit-Solveig Seidenkrantz and Anne de Vernal

Outcome of recent expeditions in the Labrador Sea-Baffin Bay and plan of work

- Alan Mix : Petermann expedition
- Guillaume Massé/Jacques Giraudeau : Amundsen expedition and the GreenEdge project (slides to be sent; TBC)
- Dierk Hebbeln : MSM44 in Baffin Bay
- Ralph Schneider : MSM45 in Labrador Sea
- Matthias Moros : MSM46 along the Labrador coast and Hudson Strait

Information about ongoing programs, upcoming expeditions and proposals

- The NRCan program in Baffin Bay (slides provided by Calvin Campbell)
- IODP proposals (Paul Knutz, Alan Mix)
- Northeast Greenland ship time on the *Dana* in August 2017 (Marit-Solveig Seidenkrantz)
- *Maria S Merian* expedition in Baffin Bay planned for 2017 (slides provided by Boris Dorschel)

Short discussion on follow up

19h00 – Garden party at MSS' place

Friday, June 17th

Location: Building 1673, room 118 (to the left of the main entrance)

9h30 – General discussion

- Follow-up from the project planning
- Discussions about tracers and proxies : towards multi-tracers/proxies integration
- Plans for a report ? special issue ? EGU session ? MagellanPlus workshop for IODP proposal ?

10h30 – Coffee Break

11h00 – Sub-group working session and/or project meetings

- Towards a multi-proxies/tracers database
- The Nuuk project
- Post MSM44-45-46 work plans
- Etc...

12h00 – Conclusions...