

Workshop

“Paleoclimatology, oceanography and glaciology in the Helheim Glacier region” March 25-26, 2010

Geological Museum, Øster Voldgade 5-7, 1350 Copenhagen K

Thursday March 25 – the Auditorium

8.30-9.00 *Registration*

Chairman: **Bent Hasholt**

9.00-9.05 *Welcome*
Camilla Snowman Andresen

9.05-9.35 *Will we lose the southern dome? - the lesson from the geological past*
Svend Funder, Natural History Museum, University of Copenhagen

9.40-10.10 *Rapid ice sheet changes: southeast Greenland and beyond*
Gordon Hamilton, Climate Change Institute, University of Maine

10.15-10.45 *Towards a long-term oceanographic observing capability at Helheim Glacier, Greenland*
David Holland, Center for Atmosphere Ocean Science, New York University

10.50-11.05 *Pause*

11.05-11.35 *Rapid Circulation of Arctic and Subtropical Waters in Sermilik Fjord*
Fiamma Straneo, Dept. of Physical Oceanography, Woods Hole

11.40-12.10 *Dynamic of tidewater glaciers in the Sermilik Fjord system and fjord-shelf interaction*
Ola M. Johannessen et al. (presenters: **Alexander Korablev** and **Victoria Miles**): Nansen Environmental and Remote Sensing Center, Bergen, Norway

12.15-12.30 *Interaction between oceanography, climate and Helheim glacier calving: studies from the marine sediment archive*
Camilla Snowman Andresen, Geological Survey of Denmark and Greenland Dept. of Marine Geology and Glaciology

12.35-13.30 *Lunch*

Chairman: **Morten Langer Andersen**

13.30-13.45 *Greenland ice loss continues to accelerate*
Shfaqat Abbas Khan, DTU Space

13.50-14.05 *Freshwater runoff and mass-loss from the Greenland Ice Sheet - from local to regional scale*
Sebastian Mernild, Los Alamos National Laboratory

14.10-14.25 *Local glaciers on Ammassalik Island and mass balance studies and monitoring of the Mittivakkat Glacier*
Niels Tvis Knudsen, Department of Geology, University of Aarhus

14.30-14.45 *Freshwater runoff and sediment transport on Ammassalik Island – processes and monitoring*
Bent Hasholt, Department of Geography and Geology, University of Copenhagen

14.45-15.00 *Pause*

15.00-15.15 *Sediment processes and geomorphological dynamics in the Mittivakkat Glacier delta, Ammassalik Island*
Aart Kroon, Department of Geography and Geology, University of Copenhagen

15.20-15.35 *Late Holocene land-fjord fluxes in the Mittivakkat Glacier catchment documented in a near coastal/delta marine sediment core from the Sermilik Fjord*
Jørn Bjarke Torp Pedersen, Department of Geography and Geology, University of Copenhagen

15.40-15.55 *Holocene environmental terrestrial changes documented in lake sediments and polysequent soil profiles on Ammassalik Island, Southeast Greenland*
Bjarne Holm Jakobsen, Department of Geography and Geology, University of Copenhagen

18.30 *Conference dinner at the Geological Museum*

Friday March 26 – the Auditorium

Chairman: Aart Kroon

9.00-9.15 *Surface change detecting using historical aerial imagery*
Kurt H. Kjær, Natural History Museum, University of Copenhagen

9.20-9.35 *Results from GLIMPSE: Historical changes in geometry at Helheim Glacier*
Timothy James, Department of Geography, University of Swansea

9.40-9.55 *Results from GLIMPSE: Constraining past geometry at Helheim Glacier using remote sensing and field observations*
Anna Hughes, Department of Geography, University of Swansea

10.00-10.15 *The Programme for Monitoring of the Greenland Ice Sheet*
Andreas P. Ahlstrøm, Geological Survey of Denmark and Greenland Dept. of Marine Geology and Glaciology

10.20-10.35 *Pause*

10.35-10.50 *Strain rate and force balance results on Helheim Glacier*
Leigh Stearns, University of Kansas

10.55-11.10 *Geodetic and seismic observations of variations in flow at Helheim glacier on multiple time scales*
Meredith Nettles, Lamont Doherty Earth Observatory at University of Columbia

11.15-11.30 *Spatial and temporal melt variability at Helheim Glacier, East Greenland, and its effect on ice dynamics*
Morten Langer Andersen, Geological Survey of Denmark and Greenland Dept. of Marine Geology and Glaciology

11.35-11.50 *A physically based calving model applied to investigate recent changes of Helheim Glacier*
Faezeh M. Nick, Free University Brussels

11.55-12.25 *Concluding thoughts: Helheim Glacier's place in the effort to move from understanding processes to predictions*
Ian Howat, School of Earth Sciences & Byrd Polar Research Center, Ohio State University

12.30-13.15 *Lunch*

Chairman: Andreas P. Ahlstrøm

13.15-14.15 **Discussion forum (the Auditorium)**
Identification of gaps and problems in present research. New initiatives and possible future research proposals. Possible sharing of fieldwork logistics. Improved coordination of the contributions in the region. All relevant subjects welcome.

Afternoon: Frosted cakes. Possible break-out meetings.