

APEX – *Arctic Palaeoclimate and its Extremes* – Second International Meeting
Tuesday, 1st to Friday 4th April 2008

Hosted by: The Department of Geography, Durham University

Tuesday 1st April 2008

2.00pm **Registration Desk** opens at [The Department of Geography](#), West Building, Science Site, Durham DH1 3LE

7.00pm **Ice breaking session** - [The Department of Geography](#), West Building

Wednesday, 2nd April 2008

8.30am **Registration** continues at the Department of Geography and delegates with posters are asked to place their posters on their assigned poster board on the adjacent stairwells to the Appleby Lecture Theatre. Posters will remain in place throughout the meeting

9.00am **Scientific Programme** – Day 1 begins - Appleby Lecture Theatre, Geography West Building.

9.00am Welcome – Antony Long and Martin Jakobsson

9.15am **Keynote presentation:**
Chaired by: Chris Stokes, Department of Geography, Durham University

Professor Dennis Darby, Department of Ocean, Earth, & Atmospheric Sciences,
Old Dominion University, Norfolk, USA
Arctic Palaeoceanography: Past, Present, and Future

Session 1: Arctic palaeoceanography

Chaired by: Chris Stokes, Department of Geography, Durham University

9.45am Lester Lembke-Jene
Aurora borealis - European research icebreaker and deep-sea drilling vessel: the challenge of a new infrastructure

10.00am Jochen Knies
Ice free Arctic Ocean during the mid-Pliocene warmth (~3 Ma)?

10.15am Matt O'Regan
Constraints on the Pleistocene chronology of sediments from the Lomonosov Ridge

10.30am Robert Spielhagen
Surface and deep water masses in the Arctic Ocean in the last 250 ky

10.45am Coffee

Wednesday, 2nd April 2008 – continued

Session 1: Arctic palaeoceanography - *continued*

Chaired by: Dave Roberts, Department of Geography, Durham University

- 11.15am Guillaume Massé
Investigations into novel chemical markers for past sea ice
- 11.30am Ludvig Löwemark
Arctic Ocean Mn contents and sediment color cycles
- 11.45am Anne de Vernal
An episodically ice-free Greenland during the Pleistocene
- 12.00pm Morten Hald
Abrupt climate changes reflected in Late Glacial to Holocene marine proxy records from the Euro-Arctic margin
- 12.15pm Elena Ivanova
Barents Sea environments: from the last Weichselian extreme to present
- 12.30pm Martin Jakobsson
Lomonsov Ridge off Greenland 2007 (LOMROG): New findings on the Arctic Ocean glacial history
- 12.45pm Chris Stokes
Episodic ice streaming into the Arctic Ocean from the north-western margin of the Laurentide Ice Sheet
- 1.00pm Lunch

Wednesday, 2nd April 2008 – continued

Session 2: Arctic glaciers and permafrost

Chaired by: Colm ÓCofaigh, Department of Geography, Durham University

- 2.15pm Georg Schwamborn
The permafrost record of El'gygytgyn Impact Crater
- 2.30pm Henning Bauch
Pore water chemistry infers alteration of submarine permafrost since the last global sea level rise
- 2.45pm Lutz Schirrmeister
Quaternary landscape dynamics of Western Beringia - Permafrost records from the Laptev Sea coastal lowlands
- 3.00pm Dave Evans
Are polar glacier margins suitable analogues for reconstructions of mid-latitude Pleistocene glaciations?
- 3.15pm Brice Rea
Quantifying glacier mass balance at the edge of the Scandinavian Ice Sheet during the Younger Dryas
- 3.30pm Tea
- 4.00pm Ian Evans
Asymmetry of local glaciers even in the Arctic: new results from Spitsbergen
- 4.15pm Martin Jakobsson
APEX planned field campaigns and logistics
- 5.00pm Poster session
- 7.00pm Dinner at [Hatfield College](#)

Thursday 3rd April 2008

9.00am **Scientific Programme – Day 2**

9.15am **Keynote presentation:**

 Chaired by: Dr David Evans, Department of Geography, Durham University

 Professor Shawn Marshall, Department of Geography, University of Calgary
Modelling Greenland Ice Sheet sensitivity to climate change

Session 3: Greenland ice sheet-ocean interactions

Chaired by: Dr David Evans, Department of Geography, Durham University

9.45am Colm ÓCofaigh

Past ice sheet expansion and large-scale glacier-influenced sedimentation on the Greenland continental margin

10.00am Claude Hillaire-Marcel

Recent changes in geochemical and biogenic fluxes in the Fram Strait area

10.15am Jerry Lloyd

Marine evidence for deglaciation of the Disko Bay area, West Greenland

10.30am David McCarthy

Interactions between ice stream activity, ocean circulation and climate change in the Disko Bugt – Uummannaq area of West Greenland during the Holocene

10.45am Coffee

11.15am Antony Long

Late Holocene relative sea-level rise and the neoglacial regrowth of the Greenland ice sheet

11.30am Sarah Woodroffe

Sea-level and ice sheet history of West Greenland during the last millennia: work in progress

11.45am Martin Klug

Late Quaternary history of Store Koldeway, NE Greenland, inferred from lake sediments

12.00pm Per Möller

Reverse phase valley and shelf glaciations on the northernmost Greenland - the importance of an open Arctic basin as a moisture source

12.15pm Dave Roberts

The geochronology and dynamics of southeast sector of the Greenland Ice Sheet during the Last Glacial Maximum

12.30pm Svend Funder

Longterm 2007 in northernmost Greenland– return to the real arctic

12.45pm Discussion

1.00pm Lunch

Thursday 3rd April 2008 – continued

Session 4: Quaternary environments of the Spitsbergen archipelago

Chaired by: Robert Spielhagen, Academy of Sciences and Humanities Mainz, Leibniz Institute of Marine Sciences, Kiel

- 2.15pm Olafur Ingólfsson
Late Quaternary glacial history of Svalbard - problems and potentials
- 2.30pm Jon Landvik
*Western Svalbard Ice Sheet dynamics through the last interglacial/glacial cycle.
Towards unlocking the ice-sheet/ocean interaction*
- 2.45pm Helena Alexanderson
*Late Quaternary glacial and marine environmental change at Forlandsundet,
Svalbard*
- 3.00pm Jan Mangeurd
Were Novaya Zemlya and the Barents Sea ice free about 30KA?
- 3.15pm Olafur Ingólfsson
*Fossil find on Svalbard sheds light on the natural history of the polar bear (Ursus
maritimus)*
- 3.30pm Tea

Session 5: The Quaternary of the Eurasian Arctic

Chaired by: Jan Mangerud, Department of Geoscience and Bjerknes Centre for Climate Research, University of Bergen

- 4.00pm Thijs van Kolfschoten
The collapse of the Mammoth Steppe ecosystem
- 4.15pm Dmitry Subetto
*Climate and environmental variability in Central Yakutia during the Late
Pleistocene and Holocene: new paleolimnological data*
- 4.30pm Eiliv Larsen
Weichselian glacial and lake history of NW Russia: will it finally come together?
- 4.45pm Rhian Salmon
IPY Outreach, Education, and Polar Science Days
- 5.00pm Discussion
- 6.30pm Tour of Durham Castle – meet at entrance to Durham Castle, Palace Green
- 7.30pm
for 8.00pm **Conference Dinner, [Great Hall, Durham Castle](#)**

Friday 4th April 2008

Session 5: The Quaternary of the Eurasian Arctic

Chaired by: Jerry Lloyd, Department of Geography, Durham University

- 9.00am **Scientific Programme – Day 3**
- 9.15am Florence Colleoni
Influence of dust deposition and proglacial lakes on the surface mass balance of the large Eurasian ice sheet during the peak Saalian (140 k yrs BP)
- 9.30am Evgeny Gusev
Pliocene-Quaternary sediments of Chukchi sea shelf
- 9.45am John Inge Svendsen
A lake coring campaign in the Polar Urals - results and plans
- 10.00am Valery Astakhov
Indications of extreme Late Pleistocene aridity in northeastern Europe
- 10.15am Paul Hughes
Testing peat humification as a climate record: associations between a Newfoundland bog and GISP2 examined using a multiple bandwidth correlation technique
- 10.30am Coffee
- 11.00am Olaf Juschus
The warm stages within the 340 ka sediment record of Lake El'gygytgyn/NE Siberia - a comparison
- 11.15am Georg Stauch
Timing of Late Pleistocene Glaciations in the Verkhoyansk Mountains, NE-Siberia
- 11.30am Maria Jensen
Linking land and sea - multistorey valley fill from the Mezen and Severnaya Dvina river valleys, Arkhangelsk region, NW Russia
- 11.45am Juha-Pekka Lunkka
A sudden water level drop of the White Sea Ice Lake during the Younger Dryas
- 12.00pm Discussion and Conference close
- 1.00pm Lunch and depart