

GREENICE/ARCPATH DRAFT MEETING AGENDA

16-18 October 2017, Reykjavík, Iceland

Meeting Locations

- Monday 16 October: 09.00-17.00. Conference room in the Nordic House (<http://nordichouse.is/en/um-husid/>)
- Tuesday 17 October: 09.00-17.00. Meeting room HT-303 on third floor of Háskólatorg (in main university area).
- Wednesday 18 October 09.00-12.00. G-215 on 2nd floor in the University building called *Gímlí* (This Wednesday meeting is an ARCPATH business meeting for: Yongqi, Astrid, Noel, Niels, Torben and Marianne. Attendance is not required from the rest of the group).

MONDAY 16 OCTOBER: MAINLY ARCPATH

Project Title: *Arctic Climate Predictions: Pathways to Resilient, Sustainable Societies (ARCPATH)*

The ARCPATH project consists of these Work Packages:

WP1. *Arctic Linkages: Climate, Environmental Change, and Human Eco-Dynamics.* Leader Astrid Ogilvie (SAI); Co-Leader Noel Keenlyside (UiB). Participants: DMI; SAI; UoI; IC: NSIDC.

WP2. *Improved Global Climate Prediction by Initialization of Arctic Sea Ice and Sea-Surface Temperatures.* Leader Noel Keenlyside (UiB); Co-leader Shuting Yang (DMI). Participants: DMI; NERSC; SMHI; IC: IORAS; UCI; IAPRAS; NZC; AWI.

WP3. *Arctic Climate Predictions and Regional Downscaling.* Leader Markus Meier (SMHI); Co-leader Torben Koenigk (SMHI). Participants: SAI; SMHI; DMI; IC: IORAS; NZC.

WP4. *Climate, Socio-Ecological Systems, Cetaceans and Tourism.* Leader Marianne Rasmussen (UoI); Co-Leader Niels Einarsson (SAI). Participants: SAI, UoI; NSIDC.

WP5. *Responsible Governance, Security and Abrupt Climate Change in North Atlantic Arctic Coastal Communities.* Leader: Niels Einarsson; Co-Leader: Astrid Ogilvie. Participants: SAI; UoI; IC: INSTAAR, RRU, NSIDC, UiT.

WP6. *Project Synthesis.* Leader Astrid Ogilvie (SAI); Co-leader: Yongqi Gao (NERSC). All Project Participants; IC: RRU, UiT.

WP7: *Project Management and Dissemination.* Leader Yongqi Gao (NERSC); Co-Leader Astrid Ogilvie (SAI).

MEETING PROGRAMME

09.00-09.20. Astrid Ogilvie and Niels Einarsson (Local Hosts): Welcome, introduction and practicalities and brief summary of NordForsk Advisory Board comments from June 2017.

09.20-09.40. Edward Huijbens, UA; SAI. *Arctic Tourism in the Anthropocene: Relevance for ARCPATH.* [Relates to WP4 and 5.]

09.40-10.00. Tom Barry, Conservation of Arctic Flora and Fauna (CAFF). *Policy, Research and Conservation Areas in the Arctic: Relevance for ARCPATH.* [Relates to WP4 and 5.]

10.00-10.10: DISCUSSION

10.10-10.30: COFFEE AND TEA BREAK

10.30-10.50. Gunnar Már Gunnarson, IASC and SAI. *Historical Reflections: A Geo-Historical Introduction to Skjálfandi Bay, Iceland and Ittoqqortoormiit, Greenland*. [Relates to WP4 and 5.]

10.50-11.00. DISCUSSION

11.00-11.20. Níels Einarsson, SAI. *Coastal Communities, Climate and Rapid Socioecological Change: Reflections on Ongoing ARCPATH Research*. [Relates to WP4 and 5].

11.20-11.30. DISCUSSION

11.30-11.50. Margaret Willson, *Gender Issues, Fisheries Governance and Community Resilience in North Atlantic Arctic Coastal Communities, with a Special Focus on Iceland*. [Relates to WP5.]

11.50-12.00. DISCUSSION

12.00-12.20. Marianne Rasmussen, UoI. *Cetaceans, Climate Changes and Anthropogenic Noise*. [Relates to WP4].

12.20-12.30. DISCUSSION

12.30-13.30. LUNCH (At Háma or Nordic House)

13.30-13.50. Embla Eir Oddsdóttir, Icelandic Arctic Cooperation Network, SAI. *Best Available Technology - The Perception of Risk*. [Relates to WP5.]

13.50-14.00. DISCUSSION

14.00-14.20. Astrid Ogilvie, SAI. *Why Study Past Climates? The Historical Sea-Ice Record from Iceland*. [Relates to WP 1.]

14.20-14.30. DISCUSSION

14.30-14.50. Bo Christiansen, DMI. *Analyses of the Long Historical Time Series of Iceland Sea Ice*. [Relates to WP1 and WP2.]

14.50-15.00. DISCUSSION

15.00-15.20. Shuting Yang, DMI. *Development of the European Community Model for Earth System Modelling - The Earth Decadal Prediction System in ARCPATH*.

15.20-15.30. DISCUSSION

15.30-15.50. TEA/COFFEE

15.50-16.10. Per Pemberton, SMHI. *Status of the Ocean Downscaling Task in ARCPATH*. Additional contribution to GREENICE tbc.

16.10-17.00 GENERAL DISCUSSION. 1700. ADJOURN

TUESDAY 17 OCTOBER: MAINLY GREENICE

Project Title: *Impacts of Future Sea-Ice and Snow-Cover Changes on Climate, Green Growth and Society (GREENICE)*

The GREENICE project consists of these Work Packages:

WP1 will quantify and improve understanding of the impact of sea ice, and snow cover on the large-scale atmospheric circulation (AGCM), through coordinated multi-atmospheric model experiments. We will determine best practices for simulating the atmospheric response to sea-ice and snow-cover changes. These will be used in **WP2** to perform ensemble (time-slice) predictions for the next 30 years using AGCMs. These experiments will be forced with sea-ice, snow-cover, and SST changes derived from existing state-of-the-art climate projections and predictions. The uncertainties in predicted sea ice, snow cover, and SSTs will be represented in the time-slice experiments, in order to provide a more reliable estimate of changes in NH atmospheric circulation and weather events over the next 30 years. **WP3** will analyse GREENICE AGCM simulations and predictions, as well as atmospheric reanalysis products to better understand the impact of sea ice and snow cover on extra-tropical storms and extreme events, and to provide a quantitative assessment of how they will change over the next 30 years. Results from WP1 and WP3 will provide a quantitative assessment of the role of sea-ice and snow-cover changes in explaining the observed changes in NH atmospheric circulation and extreme (weather and sea ice) events during the last 30 years. **WP4** will provide an evaluation of the socio-economic impacts of cryosphere-driven atmospheric changes. We will communicate prediction results from WP2 and WP3 to the impacts and stakeholder groups in the project, and work with them on implementing these results into the planning structures. **WP5** will deal with all management and dissemination issues.

9.00-9.20. David Cook, UoI. *Ecosystem Services and Marine Mammals in the Arctic - New Research Possibilities.*

9.20-9.30. DISCUSSION

9.30-9.50. Níels Einarsson and Astrid Ogilvie, SAI. *Sea Ice, Climate, and Resource Governance in a Northern Community: The Case of Grímsey Island, Iceland.*

9.50-10. 00. DISCUSSION

10.00-10.20. COFFEE AND TEA.

10.20-10.40. Guillaume Gatsineau, UPMC, external. *Snow Cover and Sea-Ice Impacts and their Links in Coordinated AGCM Experiments.*

10.40-10.50. DISCUSSION

10.50-11.00. Madlen Kimmritz and François Counillon, NERSC. *Recent Developments in NorCPM (Norwegian Climate Prediction Model) for Enhancing Arctic Climate Prediction Skill.*

11.00-11.10. DISCUSSION

11.10-11.30. Torben König, SMHI. *Arctic-lower latitude linkages in observations, atmosphere models and coupled models.*

11.30-11.40. DISCUSSION

11.40-12.00. Hoffman Cheung, UiB. *Assessing the Role of Arctic Sea-Ice Changes in Future Northern Hemisphere Circulation Changes.*

12.00-12.10. DISCUSSION

12.10-13.30. LUNCH (At Háma).

13.30-13.50. Lingling Suo, NERSC. *A Sea-Ice Free Arctic Contributes to the Projected Warming Minimum in the North Atlantic.*

13.50-14.00. DISCUSSION

14.00-14.20. Fumiaki Ogawa, UiB. *A Coordinated Multi-Model Study on the Impacts of Recent Arctic Sea-Ice Loss on Northern Hemisphere Climate Changes.*

14.20-14.40. DISCUSSION

14.40-15.00. Leslie King, Royal Roads University, SAI. *Interdisciplinary Projects: The Challenge of Synthesis.* [Relates to ARCPATH WP6 and all Work Packages.]

15.00-15.10. DISCUSSION

15.10-15.30. TEA and COFFEE

15.30-15.50. Noel Keenlyside, UiB. *Summary of GREENICE Achievements, Science and Collaboration* (International and with Hydropower Sector).

15.50-16.10. Jostein Sundet, NordForsk. Comments and Discussion. (tbc)

16.10-17.00. FURTHER DISCUSSION AS NEEDED. Synthesis, synergy between GREENICE and ARCPATH. Future Planning (Meetings, Presentations, Papers), Website etc.

The current plan is that the ARCPATH Management Committee (Yongqi Gao, Astrid Ogilvie, Noel Keenlyside, Niels Einarsson, Marianne Rasmussen and Torben König) will meet on Wednesday morning to discuss further management issues.

17.00 ADJOURN

Group dinners will be at the Nordic House on Sunday 15 October at 7 pm and at "Matur og Drykkur" on Tuesday 17 October at 7pm.