

AMAP/EU-PolarNet Stakeholder Workshop on Research Needs on Arctic Ecosystems and Ecosystem Services

Riga, Latvia, 20 September 2016

Background

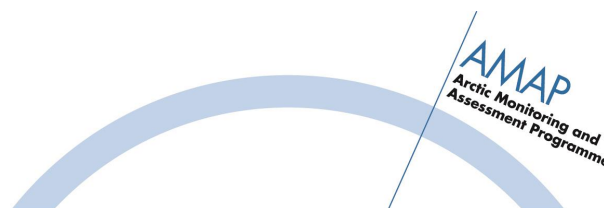
The Arctic Council Working Group the Arctic Monitoring and Assessment Programme (AMAP) and the EU Horizon 2020 Coordination and Support Action EU-PolarNet will co-convene a Stakeholder Workshop on Research Needs on Arctic Ecosystems and Ecosystem Services in association with a scientific session at the Annual Science Conference of the International Council for the Exploration of the Sea (ICES). AMAP has coordinated monitoring and assessment activities in the Arctic for over 25 years and EU-PolarNet is a five-year project with the ultimate objective of developing an Integrated European Polar Research Programme (including also the Antarctic) together with an implementation plan based on extensive consultations with scientists, governments, businesses and other relevant stakeholders.

AMAP, as a partner in EU-PolarNet, is responsible for promoting trans-Atlantic research activities between EU countries and the USA and Canada and, as one aspect of this, to hold stakeholder workshops to determine common research needs that can be provided as input to the central EU-PolarNet requirement of developing an Integrated European Polar Research Programme together with an implementation plan. An important aspect of EU-PolarNet is connecting science with society under which dialogue and cooperation with relevant Arctic stakeholders will ensure their input to the formulation of this research programme. AMAP will organize four annual stakeholder workshops to identify and formulate key Arctic research needs over the next five years. The second workshop will be held on 20 September 2016 in Riga, Latvia in association with the ICES Annual Science Conference. The central theme of this workshop is research needs for a better understanding of Arctic marine ecosystems and ecosystem services, especially living marine resources, and the factors that influence their functioning, from oceanographic and biogeochemical processes to the many human uses of this area, including fisheries and shipping, in the light of the many changes occurring in the Arctic associated with climate change.

There are many challenges affecting Arctic marine ecosystems, from the rapidly changing climate to the increase in human activities. These challenges are being addressed in three Arctic regions in the ongoing Arctic Council project Adaptation Actions for a Changing Arctic (AACCA). However, opportunities are also arising as the Arctic is opening up to new activities. Papers will cover such topics as:

- Arctic marine ecosystems and their living marine resources, including fish, marine mammals, benthos, etc., and their vulnerability to increased human activities and climate change;
- Arctic oceanographic processes affecting ecosystems and fisheries and the influence of ongoing changes in the cryosphere on these processes;
- Influence of biogeochemical processes, including ocean acidification, on Arctic ecosystems and their living resources;
- Influence of human activities (for example, shipping, oil and gas extraction, tourism) on Arctic ecosystems

In addition to the presentation of the results of research, papers will lead into an identification of gaps in knowledge that need to be explored or related new issues that require research.



Format of the event

The stakeholder workshop will be part of a full-day event, which will begin with a morning scientific session entitled AMAP/EU-PolarNet/ICES Session on Arctic Ecosystem Services: Challenges and Opportunities which is Theme Session P of the ICES Annual Science Conference. Based on the scientific presentations in this session, the AMAP/EU-PolarNet Stakeholder Workshop on Research Needs on Arctic Ecosystems and Ecosystem Services will be held in the afternoon, with participants representing not only scientists and the research community but also various other stakeholders with interests associated with Arctic marine ecosystem services, including fisheries, shipping, and tourism.

As this workshop is associated with the ICES Annual Science Conference, registration is required via <http://www.ices.dk/news-and-events/asc/ASC2016/Pages/Registration.aspx> together with a one-day conference fee of 90 Euros.

The draft agenda for the stakeholder workshop and a list of the titles of scientific presentations at ICES Theme Session P are attached.

Further information on this event may be obtained from:

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MEETING AGENDA

Conference Date	20 September 2016
Conference Location	Radisson Blu Hotel Latvija, Elizabetes 55, Riga, Latvia
Theme session P: Arctic Ecosystem Services: Challenges and Opportunities (Co-sponsored by AMAP, EU-PolarNet, and ICES) Co-Chairs: Candace Nachman (USA), Susanne Kortsch (Norway)	
Room Beta 2	
Time	
10:00 – 13:00	Theme Session P: Arctic Ecosystem Services: Challenges and Opportunities (see attachment)
13:00 – 15:00	Lunch
AMAP/EU-PolarNet Stakeholder Workshop on Research Needs on Arctic Ecosystems and Ecosystem Services Co-Chairs: Candace Nachman (USA), Susanne Kortsch (Norway)	
Room XX	
Time	
14:00 – 14:30	Opening and welcome <i>Lars-Otto Reiersen, AMAP Executive Secretary</i> Context of the workshop: Research needs defined for EU-PolarNet work <i>Nicole Biebow, AWI, Project Manager EU-PolarNet</i> Aims and outcome of the workshop <i>Janet Pawlak, AMAP Secretariat – Rapporteur</i>
14:30 – 15:30	Summary of research needs from morning session <i>Candace Nachman, NOAA National Marine Fisheries Service, USA</i> Research needs on climate-related changes in the Arctic Ocean and cryosphere <i>Paul Wassmann, University of Tromsø</i> Research needs for Arctic ecosystems and biodiversity <i>Victor Smetacek, Alfred Wegener Institute</i> Discussion
15:30 – 16:30	Need for monitoring in Arctic Ocean: contaminants, climate, acidification <i>Lars-Otto Reiersen, AMAP Executive Secretary</i> Needs for interdisciplinary Arctic state and process studies <i>Richard Rivkin, Memorial University of Newfoundland</i> New research challenge: Litter/plastics in the Arctic Marine Environment <i>Tina Schoolmeester, GRID Arendal</i> Discussion
16:30 – 17:00	Coffee Break
17:00 – 17:45	Panel discussion – Research needs for Arctic Marine Ecosystems
17:45 – 18:00	Final remarks and closing of meeting

Theme session P

Arctic ecosystem services: challenges and opportunities (co-sponsored by AMAP and EU-PolarNet)

Conveners: Candace Nachman (USA) Susanne Kortsch (Norway)

Tuesday 20 September 2016, 10:00-13:00, Beta 2

Tuesday 20 September 2016

10:00	Introduction
10:05	CM Code: P:450 Title: Modelling spatio-temporal variation of surface hydrography in an Arctic shelf sea Authors: Jussi Mäkinen, Jarno Vanhatalo Keywords: Spatio-temporal, Arctic shelf sea, surface hydrography, Bayesian inference, uncertainty Presentation type: Oral
10:15	CM Code: P:502 Title: Structure and resilience of the benthic food web across the Canadian Arctic Ocean and the Chukchi sea. Authors: Noémie Friscourt, Christian Nozais Philippe Archambault Keywords: Canadian Arctic; Chukchi sea; Benthos; Stable isotopes; Ice Proxy; IP25; Trophic structure; Resilience. Presentation type: Oral
10:25	CM Code: P:433 Title: Regional heterogeneity in climate change impacts on the living marine resources of the Arctic. Authors: Anne B. Hollowed, Wei Cheng, Harald Loeng, Elizabeth Logerwell, Franz Mueter, and James Reist Keywords: Climate change, ocean temperature, projections, commercial fisheries, vulnerability Presentation type: Oral
10:35	CM Code: P:178 Title: Cod response to past and current warm phases in the seas of Iceland, a time series analysis Authors: Marcos Llope, Niall McGinty, Joël Durant, Leif C. Stige, Guðrún Marteinsdóttir, Nils Chr. Stenseth Keywords: Arctic cod, regime shifts, trophic control, thresholds Presentation type: Oral
10:45	CM Code: P:644 Title: Climate change impacts on the ecosystem services of Arctic cod (<i>Boreogadus saida</i>) Authors: Benjamin J. Laurel, Benjamin J. Laurel, Louise A. Copeman Keywords: Climate change–Thermal sensitivity–Polar cod–Lipids–Bioenergetics–Biogeography Presentation type: Oral
10:55	CM Code: P:129 Title: Pink salmon as sentinels for climate change in the Arctic Authors: Ed Farley, Wess Strasburger, Jeanette Gann, Kris Ciciel (presented by Candace Nachman) Keywords: Pink salmon, Arctic, Integrated Ecosystem Surveys Presentation type: Oral
11:05	CM Code: P:248 Title: A Bioeconomic Model of Ocean Acidification Challenges in the Baffin Bay/Davis Straight Shrimp Fishery Authors: Brooks A. Kaiser Keywords: Baffin Bay/Davis Straight Shrimp Fishery; Ocean Acidification; Bio-economic modelling Presentation type: Oral
11:15	CM Code: P:268 Title: Socio-economic impacts of ocean acidification and warming on Barents Sea Cod Authors: Martina H. Stiasny, Martin Hänssel, Catriona Clemmesen, Flemming Dahlke, Felix H. Mittermayer, Martin Quaas, Thorsten Reusch, Daniela Storch, Rudi Voss Keywords: Atlantic cod, ocean acidification, climate change, early life stages, recruitment Presentation type: Oral
11:35	CM Code: P:647 Title: SYMBIOSES: a practical risk management tool to integrate fisheries and hydrocarbon activities in the Lofotens and Barents Sea, Norway Authors: Daniel Howell, Jolynn Caroll Frode Vikebo Keywords: ecosystem, fisheries, oil, oil spill, integrated management Presentation type: Oral
11:45	CM Code: P:280 Title: Towards quantitative oil spill risk assessment in the Arctic sea areas Authors: Maisa Nevalainen, Inari Helle Jarno Helle Keywords: Arctic, oil spill, food web, functional groups, uncertainty, risk assessment Presentation type: Oral
11:55	CM Code: P:445 Title: Benthic non-indigenous species in ports of the Canadian Arctic: risks associated with global warming and shipping activity Authors: Kimberly Howland, Jessica Goldsmit, Philippe Archambault, David Barber, Guillem Chust, George Liu, Jennifer Lukovich, Chris McKindsey, Ernesto Villarino Keywords: shipping, climate change, benthic invertebrates, nonindigenous species, species distribution modelling Presentation type: Oral

12:05	<p>CM Code: P:559 Title: Unique insights from historical fisheries survey logbooks in the Arctic Authors: John K. Pinnegar, Bryony L. Townhill, Georg H. Engelhard Keywords: archive, survey, Svalbard, cod, capelin, climate change Presentation type: Oral</p>
12:15	<p>CM Code: P:405 Title: The Missing Middle: The Need for International Collaboration to Fill Gaps in Central Arctic Ocean Science Authors: Henry P. Huntington, Thomas Van Pelt, Hyoung Chul Shin Keywords: Central Arctic Ocean, fisheries, food web, international collaboration, ecology Presentation type: Oral</p>
12:25	<p>CM Code: P:624 Title: Ballast water of domestic ships as a pathway for the introduction of non-indigenous mesozooplankton in coastal Nunavik, Canada Authors: Pascal Tremblay , Pascal Tremblay 1, André Rochon1 , Gesche Winkler 1, Kimberly Howland 2, Nathalie Simard3, Sarah Bailey 4 Keywords: Ballast water discharge ; Non-indigenous species ; Mesozooplankton ; Canadian Arctic ; Deception Bay ; Port of Quebec ; Domestic vessels, Voluntary ballast water exchange ; Strait of Belle Isle ; Strait of Jacques Cartier Presentation type: Poster</p>
12:30	<p>CM Code: P:122 Title: An overview of the adequacy of Arctic sea basin data Authors: Belinda J. Kater, Nathalie Steins, Martine J. van den Heuvel-Greve, Peter Thijssse, CJ Beegle-Krause, Oscar Bos, Bart Grasmeyer, Le Griffin, Eline van Onselen, Harriet van Overzee, Gerjan Piet, Andrea Sneekes, Arjan Tuijnder, Pepijn de Vries, Jan Tjalling van der Wal Keywords: Arctic Sea, marine, data, fisheries, offshore wind farms, marine protected areas, climate change, river input, bathymetry, alien species, oil spills, coasts Presentation type: Poster</p>
12:35	<p>CM Code: P:556 Title: Trophodynamics of Atlantic cod (<i>Gadus morhua</i>) on the Greenland continental shelf 2006-2010 and Spitsbergen 2010 Authors: Karl-Michael Werner, Sophia Kochalski, Jerome Chladek, Corinna Schendel, Heino O. Fock Keywords: Greenland, Spitsbergen, trophodynamics, climate change Presentation type: Poster</p>
12:40	Discussion
13:00	End of session