Tentative agenda
Expert workshop on Marine Protected Area networks in the Arctic
21-22 September 2017, Helsinki

Venue: Finnish Environment Institute (SYKE), Mechelininkatu 34a, Helsinki

This workshop is organised by Sweden and Finland, within the framework of the Arctic Council, to take stock of the current scientific understanding of marine protected areas (MPA's) in the Arctic. The aim is to identify possibilities on how MPA networks, and other area-based measures, may be used to decrease the negative effects of climate change and ocean acidification and their interactions with other human induced stressors in the Arctic. The output of the workshop will be published as a report and reporting card contributing to the scientific basis for the potential of MPAs to meet the threats posed to Arctic ecosystems and livelihoods.

The workshop is the third in a series of four MPA workshops supporting the PAME Working Group's project. The project studies the best practices for linking area-based conservation measures to Arctic marine biodiversity in support of long-term conservation of the Arctic marine environment and associated services and cultural values. More MPA workshop info can be found here.

Wednesday 20 September: 18:00-19:30 - Reception at the Swedish embassy in Helsinki, address: Pohjoisesplanadi 7A.

Day 1 (21 September): Marine climate change and ocean acidification in the Arctic from a spatial perspective

Time	Item
8:30-9:00	**Registration**

9:00-10:45	**Welcome and context**
	
	Keynote speakers:
	  o Climate – Dr Michael Tjernström, Stockholm University
	  o Ocean acidification – Dr Leif Anderson, Gothenburg University
	  o Biology – Dr Tom Christensen, Aarhus University
	  o MPA networks – Dr Mark Carr, University of California Santa Cruz

10:45-11:15	**Coffee break**
11:15-12:15	**Group work**
12:15-13:15	**Lunch**
13:15-15:30	**Group work**
15:30-16:00	**Coffee break**
16:00-16:20	**Experience from communicating science to decision makers and the public** o UK Marine Climate Change Impacts Partnerships' Annual Report Card, Dr John Baxter, Scottish Natural Heritage

	o What could an Arctic MPA reporting card look like? Dr Dan Laffoley, IUCN
16:20-17:00	**Group work reporting and discussion (all groups)**
18:30	**Evening event in the National Library of Finland**, Address: Unioninkatu 36 Original maps from Arctic explorer A.E. Nordenskiöld's collection (display and introduction), Wine and cocktail bites

Day 2, 22 September: MPAs and other area-based measures as tools against acidification & climate change

Time	Item

9:00-10:30	**Keynote speakers - MPAs in international waters**
	Commission for the Conservation of Antarctic Marine Living Resources (CCAMLR), Southern Ocean:
	   o Dr Susie Grant, British Antarctic Survey, Antarctic Ice Shelf
	   o Dr Thomas Brey, Alfred Wegener Institute, Weddell Sea
	   o Dr George Watters, National Oceanic and Atmospheric Administration, Ross Sea
	
	Baltic Marine Environment Protection Commission - Helsinki Commission (HELCOM)
	   o Jannica Haldin, HELCOM Secretariat
	
	Coastal and Marine Protected Area Networks in the Barents Region
	   o Dr Gennady Matishov and Dr Nadezhda Kasatkina

10:30-11:00	**Coffee break**
11:00-12:30	**Group work**
12:30-13:30	**Lunch**
13:30-14:30	**Group work**
14:30-15:00	**Coffee break**
15:00-16:15	**Conclusions and wrap up of meeting**

Discussion themes and proposed questions

Workshop participants will be divided into six groups. Themes A, B and C will each be discussed by two groups on day 1. All groups discuss the themes D, E and F and use their theme from the day 1 as a basis for discussions. *Since the scope of the workshop is Arctic MPAs, the **need of MPA network development** should be taken into account in the discussion.*

Theme A) Current status, projected changes and knowledge gaps

Ai) What is known, and what are the uncertainties, about the likely extent of climate change and ocean acidification in the Arctic in 2050 and 2100?

Aii) How can we better understand spatial and temporal hetero-geneity in the magnitude, rate, and direction of change in the Arctic? i.e. to what extent might small-scale (< 100km) shifts in marine climate regime change (the conservation effectiveness) of protected areas (networks)?

Aiii) What modelling / monitoring / observing / TLK information do we need to be able to plan MPA networks (or other spatial tools) effectively?

Theme B) Climate change effects on marine biodiversity and the environment

Bi) What is known, and what are the uncertainties, about key species, process & ecosystem vulnerabilities?

Bii) To what extent can we generalise known responses of species & processes? What existing information is relevant for the Arctic? (other polar information? Can we generalise from non-polar regions?). How broadly can we generalise, and how do we know?

Biii) How will projected changes shift ecologically important features (e.g. how will ice edges move in space and time)? How big is the biological challenge to protect them? What will be the impacts on Arctic foodwebs?

Theme C) Climate change effects on ecosystem services

Ci) What are the most important ecosystem services that will likely be impacted? What provisioning services? What regulating services?

Cii) What additional stressors might have substantial modifying effects (either positive or negative)? What options are there for adaptation / remediation?

Ciii) How will changing foodwebs, changing food quantities and qualities affect human activities in the Arctic?

Theme D) Mitigation, adaptation or remediation – what do we wish to achieve with MPAs?

D) How can we incorporate relevant mitigation, adaptation and/or remediation strategies into the design of MPA networks (including other area-based measures)?

Theme E) Optimal design of networks – specific issues caused by acidification *vis á vis* warming and other stresses?

E) What specific issues does acidification bring to the design of MPA networks? How do these issues differ from those of warming, freshening, and other stressors?

Theme F) Other area-based measures; what information is required in order to achieve success?

Fi) How can other (non-MPA) area-based measures identified in the MPA Toolbox be used to reduce negative impacts of acidification?

Fii) How do we measure implementation / performance to maximise successful outcomes? How do we integrate traditional and local knowledge (TLK)?