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## Monday, June 19, 2023

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### **Workshop: Using natural analogues to investigate the effects of climate change on northern ecosystems; moving from gradient to mosaic approaches**

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<i>Time</i>	<i>Presenter</i>	<i>Abstract title</i>
9:00	Samuel Rastrick	Workshop Introduction.
9:30	Kumiko Azetsu-Scott	A Tale of Two Fjords, with marine-terminated and land-terminated glaciers
9:45	Agneta Fransson	Western Svalbard fjords as climate change proxies for a changing Arctic: focus on ocean acidification and climate drivers
10:00	Jonaotaro Onodera	Decadal condition changes in material transportation in the southwestern Canada Basin, 2020-2021
10:15	Nina Bednaršek	Natural ocean acidification analogues in the subpolar and polar Northern regions: a synthesis study
10:30	Susen Fitzer (r)	Impacts of climate change on mollusc biomineralisation
10:45	Michael Bank	Using stable isotopes as tracers of pollution in heterogeneous environments
<b>11:00 Break</b>		
11:15	Jason Hall-Spencer	An overview of CO2 seep studies and the International CO2 Natural Analogues Network
11:30	Ben Harvey	The simplification of marine ecosystems under ocean acidification – insights from CO2 seeps
11:45	Richard Bellerby	Climate-Smart kelp restoration opportunities for coastal Norway
12:00	Jorge Corrales-Guerrero	Using natural analogues to evaluate the resilience of cold-water coral reefs to changes in environmental conditions
12:15	Antonio Agüera	Seasonal variability of <i>Mytilus</i> spp metabolic rate
12:30	Talia Mullen-Humphreys	Assessing vulnerability to future environmental change based on current habitat preferences along salinity gradients within Kongsfjorden: a case study on marine gammarid amphipods
<b>13:00 Lunch</b>		
14:00	Jorge Corrales-Guerrero	Knowledge gaps and future directions; results of a meta-analysis of natural gradient and mosaic studies.
14:15	Samuel Rastrick	Introduction to the group writing activity (5 min)
14:20	All	Group writing activity, split up for group discussions in to Chemistry, Biology, Statistics/experimental design.
<b>15:15 Break</b>		

<i>Time</i>	<i>Presenter</i>	<i>Abstract title</i>
15:30	All	Group writing (cont'd)
17:00	Wrap-up	
<b>18:00</b>	<b>Reception</b>	(At venue)

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## Tuesday, June 20, 2023

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### **Session 1: Cooperative studies of coastal ecosystems engaging local communities in the sub-Arctic and Arctic**

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<i>Time</i>	<i>Presenter</i>	<i>Abstract title</i>
9:00	ESSAS co-chairs / Session chairs	Welcome & Introduction
9:10	Malgorzata Smieszek	Understanding risk in ecosystem impact assessments in the Arctic
9:30	Kate Ortenzi	Southern scientists, your data debt's come due.
9:50	Anne Beaudreau	Stewardship, advocacy, and knowledge exchange in coastal resource management: Case studies from Alaska
10:10	Rachael Cadman	Participatory Scenario Planning for Inuit-led Fish Futures
<b>10:30</b>	<b>Break</b>	
11:00	David Cote	Integrative and multidisciplinary approach leads to discovery of deep ocean biodiversity hotspot off Labrador, Canada
11:20	Yuki Minegishi	Another role of coastal marine science for making the hope in a local community: a case of sub-Arctic area in Japan
11:40	Caroline Bouchard (r)	Polar cod ( <i>Boreogadus saida</i> ) in fjord and glacial habitats: a collaborative study with Uummannaq fishers
12:00	Ben Fitzhugh (r)	Stewarding Sugpiaq (Alutiiq) Fisheries through the Millennia: Braiding Knowledge for a Sustainable and Equitable Future
12:20	<b>Discussion</b>	
<b>13:00</b>	<b>Lunch</b>	

**Session 2: Natural disasters, multiple stressors and cumulative impacts along sub-arctic and arctic coasts**

<i>Time</i>	<i>Presenter</i>	<i>Abstract title</i>
14:00	Hideki Fukuda	Recovery process of coastal ecosystem and local communities from the disturbance induced by mega tsunami following the 2011 Tohoku Earthquake off the Pacific coast, northeastern Japan
14:20	Raymond Nepstad	Oil spill modelling for preparedness and potential impacts in the Barents Sea region
14:40	Toru Hirawake	Water mass distribution in the northern Bering and southern Chukchi seas using light absorption of chromophoric dissolved organic matter
15:00	Johanna Myrseth Aarflot	Cumulative impact assessment of four coastal, sub-Arctic regions with contrasting scope of human activities
15:20	James Overland (r)	Catastrophic ecological and human impacts from climate change and diminished sea ice in the northern Bering Sea
<b>15:40 Break</b>		

**Session 3: Blue Carbon, mariculture and climate change mitigation and adaptation**

<i>Time</i>	<i>Presenter</i>	<i>Abstract title</i>
16:00	Session chairs	Introduction
16:10	Øivind Strand	Perspectives on Mariculture Planning facing climate change
16:30	Navya Vikraman Nair	Linking Blue Carbon Ecosystems And Water Quality In Coastal Wetlands For Viable Small-Scale Fisheries
16:50	Wrap-up	

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## Wednesday, June 21, 2023

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### **Session 3 (cont'd): Blue Carbon, mariculture and climate change mitigation and adaptation**

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<i>Time</i>	<i>Presenter</i>	<i>Abstract title</i>
9:00	Ann-Lisbeth Agnalt	Overview of Aquaculture in the North Atlantic from the chair of the ICES Aquaculture Steering Group
9:20	Ramon Filgueira	Bivalve aquaculture in Atlantic Canada: challenges and solutions under a changing climate
9:40	Weiwei Jiang (r)	Effects of Ocean Acidification on Pacific oyster, <i>Crassostrea gigas</i> and Mitigation Approach
10:00	Masahiko Fujii	Assessing impacts of coastal warming, acidification, and deoxygenation on Pacific oyster ( <i>Crassostrea gigas</i> ) farming: A case study in the Hinase Area, Okayama Prefecture and Shizugawa Bay, Miyagi Prefecture, Japan
10:20	Jiaqi Li (r)	Some insight into the influence of ocean acidification on physiology of molluscs
<b>10:40 Break</b>		
11:10	Xi Xiao	Climate mitigation and adaptation by large-scale seaweed farming in China
11:30	Nina Bednaršek	Predictable patterns within the kelp forest can indirectly create temporary spatial refugia for ocean acidification
11:50	Yaping Gao (r)	Carbon from kelp and shellfish was captured and stored by both natural and restored seagrass bed in Sanggou Bay, China.
12:10	Samuel Rastrick	Can integrated multi-trophic aquaculture help mitigate the effects of climate change on economically important filter feeders.
12:30	Frithiof Svenson (r)	Interventions for Business Model Change - Building on a Boundary Object Framework
<b>13:00 Lunch</b>		
14:00	Afternoon excursion	To be determined
18:00	Group dinner	To be determined

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**Thursday, June 22, 2023**

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**Session 4: Cod and climate change at the coastal interface**

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<b><i>Time</i></b>	<b><i>Presenter</i></b>	<b><i>Abstract title</i></b>
9:00	Session chairs	Introduction
9:10	Svein Sundby	Synthesis on selected recruitment studies in Northeast Arctic and adjacent Norwegian coastal cod stocks
9:30	James Orr	Future projections of potential egg survival for polar and Atlantic cod across the Arctic
9:50	Anja Nickel	Spatial Ecology of Sympatric Juvenile Atlantic Cod and Saithe at Nursery Grounds
10:00	Carlissa Salant	Experimental evidence of the effect of temperature and ration on adult polar cod ( <i>Boreogadus saida</i> ) growth and condition metrics
10:20	Michelle Valliant	Distribution and movement of juvenile Atlantic cod ecotypes in nearshore water
<b>10:40 Break</b>		
11:00	Zachary MacMillan-Kenny	Mapping Ogak/Greenland cod ( <i>Gadus ogac</i> ) habitats in nearshore Nunatsiavut waters using community identified fishing locations
11:20	Pavel Emelin	Dominance transition in the nektonic species structure of the western Chukchi Sea
11:40	Kali Stone	Retrospective look at the growth and condition of juvenile Arctic cod ( <i>Boreogadus saida</i> ) in a warming Alaska Arctic
12:00	Emilie Geissinger (r)	Overwinter Survival of Juvenile Atlantic Cod ( <i>Gadus morhua</i> ) in a Coastal Ecosystem
12:20	Robert Gregory (r)	Temperature effects on recruitment of Atlantic and Greenland cod and their predators in Newfoundland coastal waters
12:50	Discussion	
<b>13:00 Lunch</b>		