



WHAT WILL CHANGES IN THE MARINE ECOSYSTEM AND NORWAY'S ADAPTATION TO CLIMATE CHANGE LOOK LIKE?

MODELS

We use data to develop bio-geo-chemical models to predict plausible future scenarios of marine ecosystem services between Bergen & Longyearbyen



SCENARIOS

We use these scenarios to determine & measure important ecosystem services like provisioning & social-cultural services with a focus on commercially important fish species, potentially emerging species like snow crab & conditions for shipping & tourism



DIALOGUES with Young & Old

We discuss & receive feedback on these scenarios fro 3 generations of Norwegians



We apply an interdisciplinary framework to analyze the following questions:

How do scientists present these scenarios? How do they present & analyze the uncertainty?

How do the different generations of stakeholders receive the scenarios? Does this differ inter-generationally or intra-generationally? How do they analyze & discuss uncertainty?

Given this analysis, what are insights that could strengthen adaptation planning & decision-making for Norway?

TRONDHEIM 63°N

BERGEN 60°N

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REGIMES (2016-2019) is funded by POLARPROG The Research Council of Norway



REGIMES: Interdisciplinary investigation into scenarios of national & international conflicts of ecosystem services in the Svalbard Zone under a changing climate in the Arctic

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Nordic Marine Think Tank**



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Projecting global marine biodiversity impacts under climate change scenarios

William W.L. Cheung¹, Vicky W.Y. Lam¹, Jorge L. Sarmiento², Kelly Kearney², Roy Watson¹ & Daniel Pauly¹

¹Fisheries Centre, 2202 Main Mall, Aquatic Ecosystems Research Laboratory, The University of British Columbia, Vancouver, British Columbia, Canada V6T 1Z4; ²Atmospheric and Oceanic Sciences Program, Princeton University, Sayre Hall, Forrestal Campus, PO Box CN710, Princeton, NJ 08544, USA

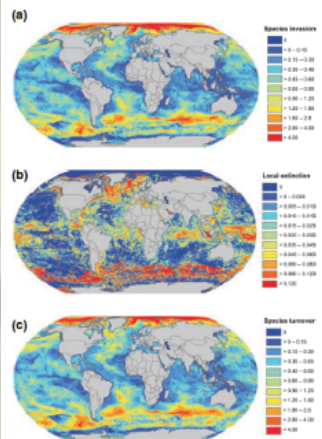


Figure 3 Predicted distribution of biodiversity impact due to warming-induced range shifts in marine metazoans. Biodiversity impact is expressed in terms of (a) invasion intensity; (b) local extinction intensity and (c) species turnover for the 1066 species of fish and invertebrates in 2050 relative to the mean of 2001–2005 (high-range climate change scenario). Intensity is expressed as proportional to the initial species richness in each 30' × 30' cell.



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● LONGYEARBYEN 78°N

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provisioning



social

ecosystem services

cultural



DIALOGUES with

TROMSØ 68°N



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AMALIE SKRAM VGS

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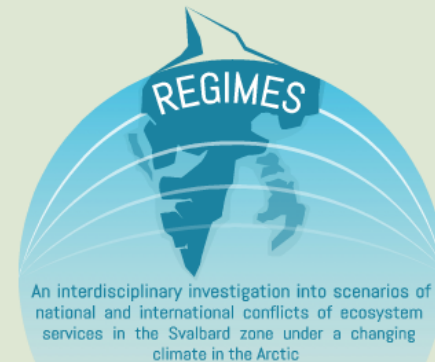
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