

# BarEcoRe

## Barents Sea Ecosystem Resilience under global environmental change 2010-2013

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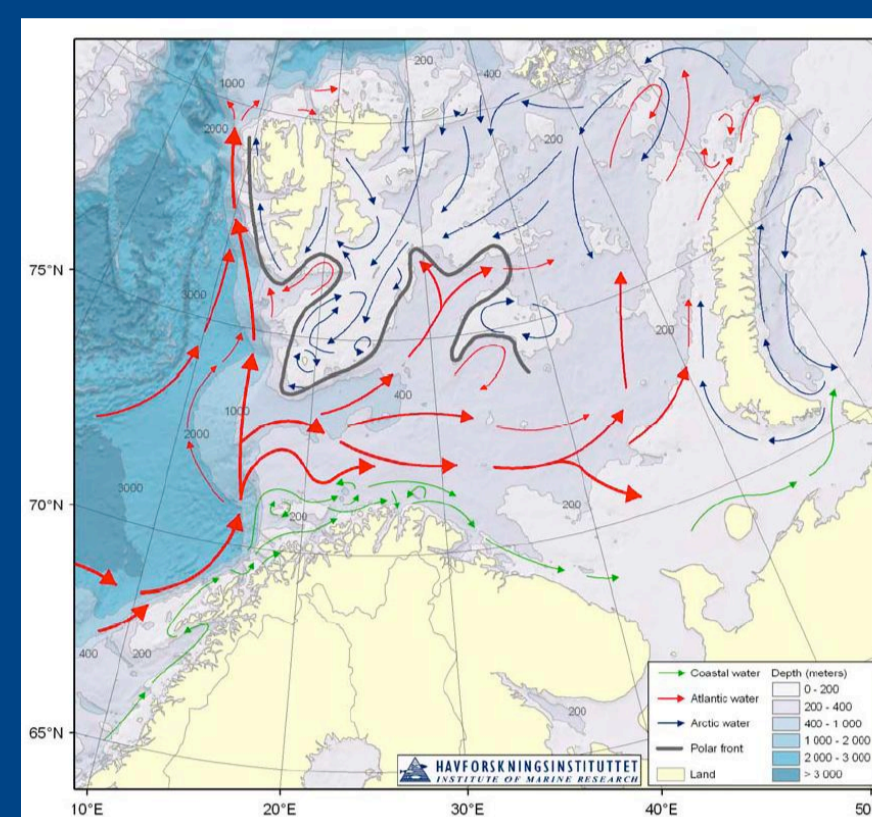
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### WHY?

There is unequivocal evidence for the impact of human activities on the state of atmosphere and ocean climate, chemistry and biology.

How marine systems can absorb these disturbances and still maintain structure and function is the central question addressed by the BarEcoRe project.

### WHERE?



BarEcoRe is focusing on the Barents Sea ecosystem. The Barents Sea is under great strain from climate variations (including some of the

world largest increase in temperature, sea ice retreat), intensive fishing activities and potential impacts from oil extraction and increase in maritime transport.

### HOW?

BarEcoRe will study the resilience of the Barents Sea ecosystem in four major areas:

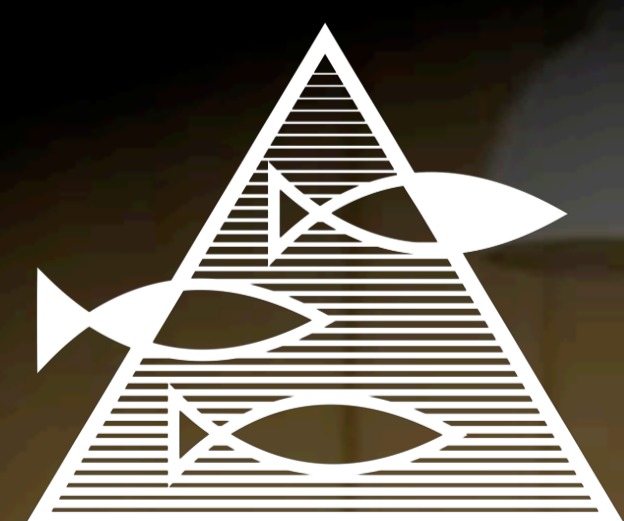
1. Marine communities structure
2. Trophic interactions
3. Spatial distributions
4. Resilience & early warning signals

Analytical approaches include: retrospective analysis of plankton, fish and benthos, predictive models of ocean climate and species distribution, life-history and ecological network analysis.

### WHAT FOR?

The main outputs of the project include a list of vulnerable species, mapping of future populations distributions under climate scenarios, characterization of regime shifts and reliable early warning signals of abrupt ecosystem changes. These will provide scientific support needed for the management of the Barents Sea ecosystem under global environmental change.

ICES CM 2010/Q:27



Participants to the BarEcoRe kick-off meeting, from left to right: David Gremillet, Geir Odd Johansen, Andrey Dolgov, Raul Primicerio, Michaela Aschan, Maria Fossheim, Benjamin Planque, Kathrine Michalsen, Edda Johannessen, Lis Lindal Jørgensen, Simon Jennings, Jennifer Devine, Harald Gjøsæter, Ken Drinkwater, Vasilis Dakos and Michael Carrol (missing from the picture).