Protection of vulnerable benthos communities in the northern Barents Sea

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PAME – EA

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Talk about:

The cooperation between Science (*Institute of Marine Research*) and Management (*Directorate of Fisheries* and *Ministry of Trade, Industry and Fisheries*) on protection of bottom areas in the Barents Sea

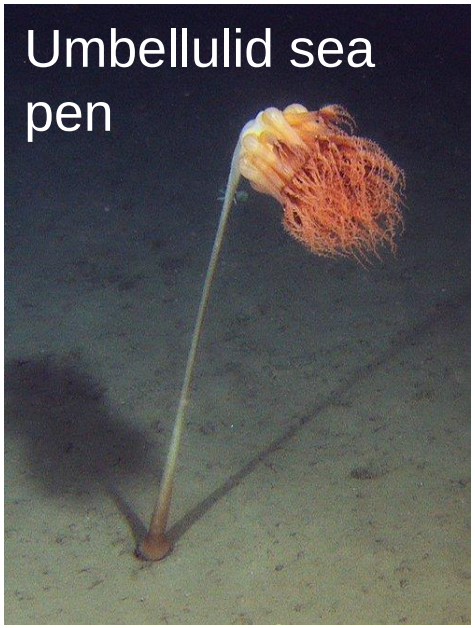
Ministry of Trade, Industry and Fisheries - letter of 08.06.2016:

«*Evaluate the need for changing the regulations of bottom trawling in the Norwegian Economic Zone, the Fishery Zone of Jan Mayen and in the Fishery Protection Zone of Svalbard*»

Norwegian Nature Management: to take care of a representative selection of Norwegian Nature (NNs)

New and existing fishery areas

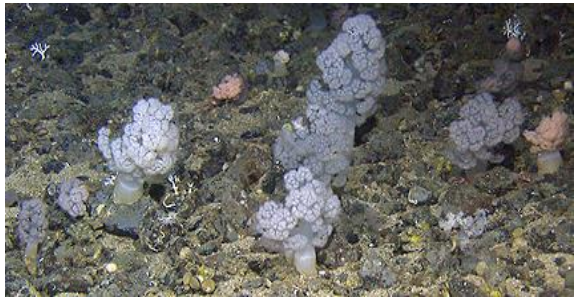
Various VMEs to establish MPAs



Geodia-areas

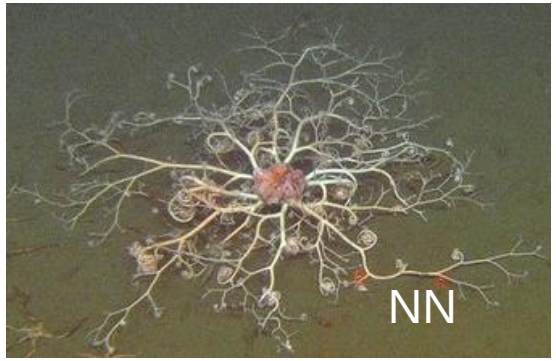
Sea lilles (new)

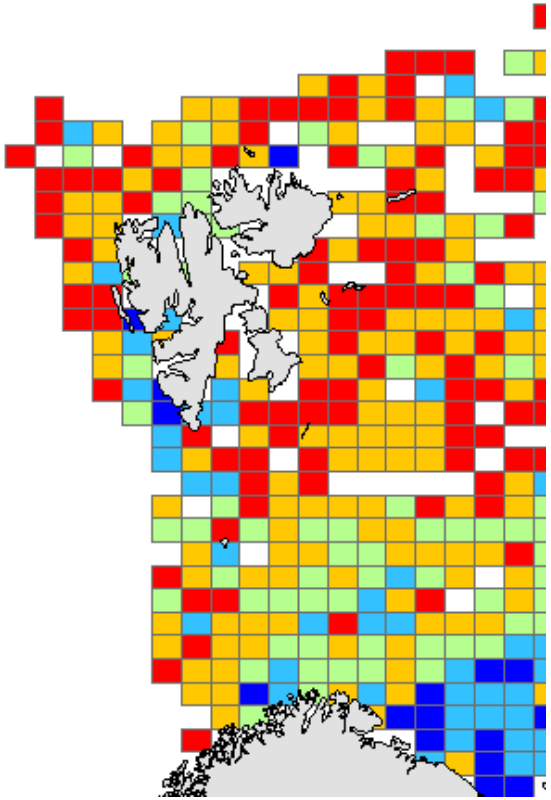
Soft Corals



Community vulnerability includes both VMEs and NNs

Vulnerable species





Jørgensen et al (2019) Impact of multiple stressors on sea bed fauna in a warming Arctic. Marine Ecology Progress Series.

The Norwegian Directorate of Fisheries proposed:

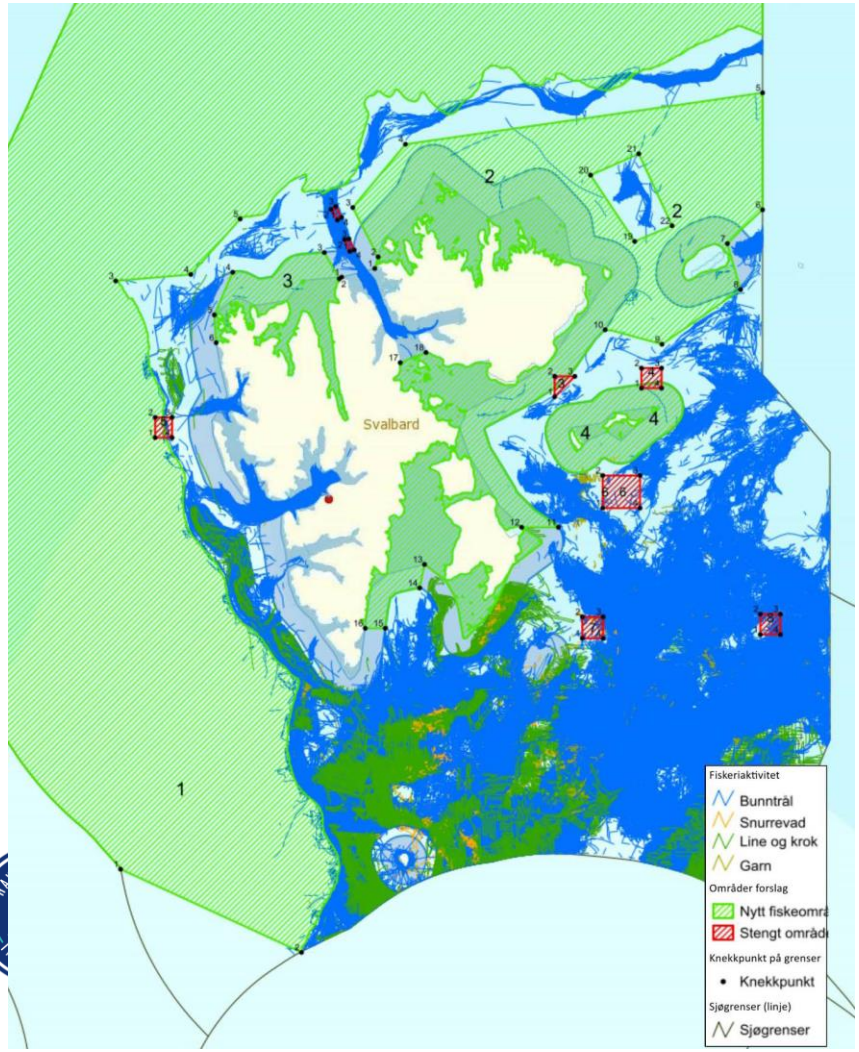
Areas far-north to be divided into new and existing fishing areas.

New areas with high benthic biodiversity and complex habitats closed in order to conserve general species-diversity (NNs) and to avoid large catches of «by-catch».

These NN areas shall not be used without prior seabed mapping.

To establish 10 areas within the «existing fish-areas» were fishery are banded in order to protect a variety of different VMEs and NNs.

Proposed areas



Blue = bottom trawling and hence existing fishing grounds

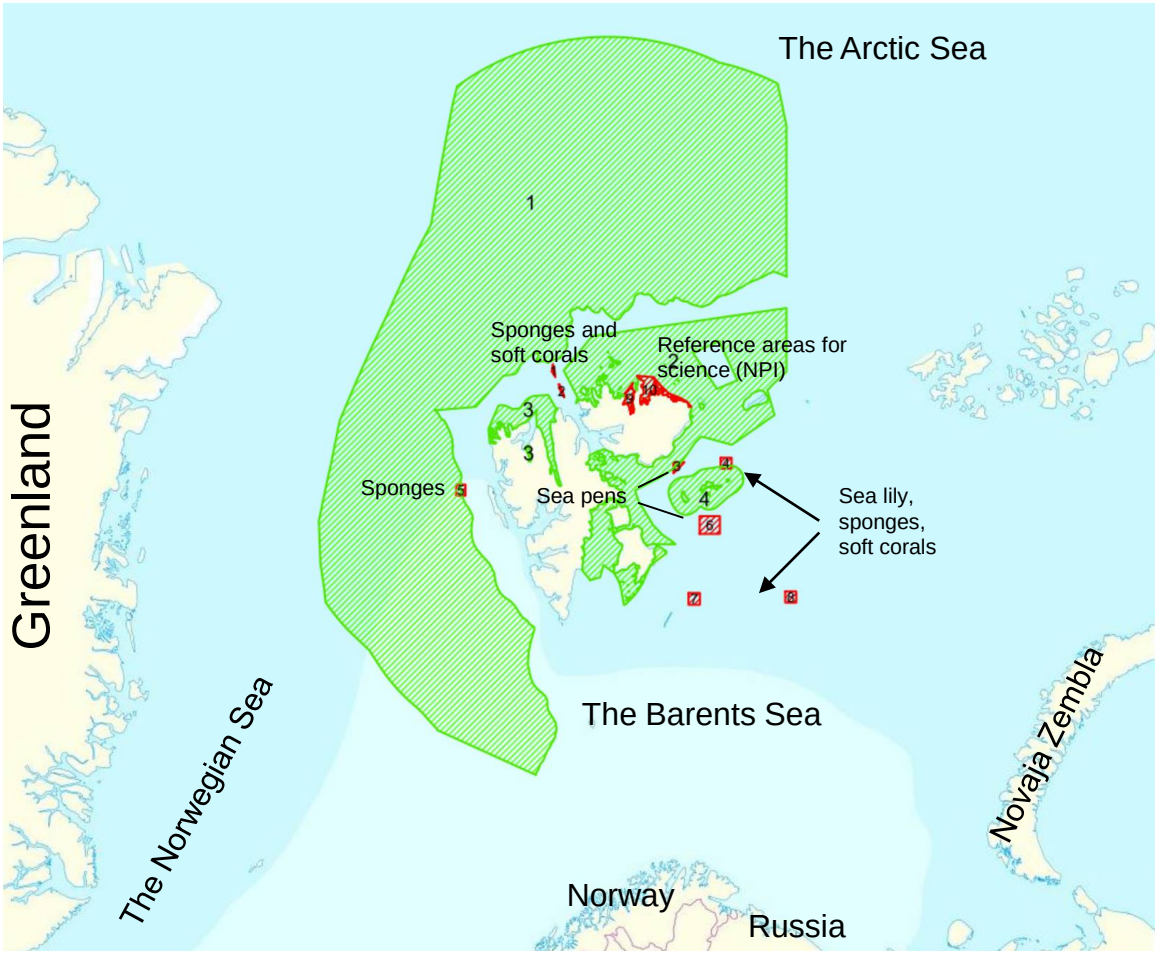
Green = NN protected in new fishing areas, and not to be used without prior mapping

Red = fisheries banned in order to protect a variety of VMEs

What will be needed

- Data flowing from science to the developed Directorate management tool (ArcGis based mapping).
- Continuation of the *time and cost* efficient standardized long-term monitoring of the sea bed (i.e. the Join RU-NO Ecosystem Survey)
- The Catchability of commercial trawl of species and habitats to be measured
- Suggestion: Definition of relevant threshold values
  - Trawl intensity – Species Vulnerability - Economy

The 29. mars 2019, the Norwegian Government adopted a regulation for waters under Norwegian jurisdiction



Special attention given to equipment for fisheries that are different from traditional use.

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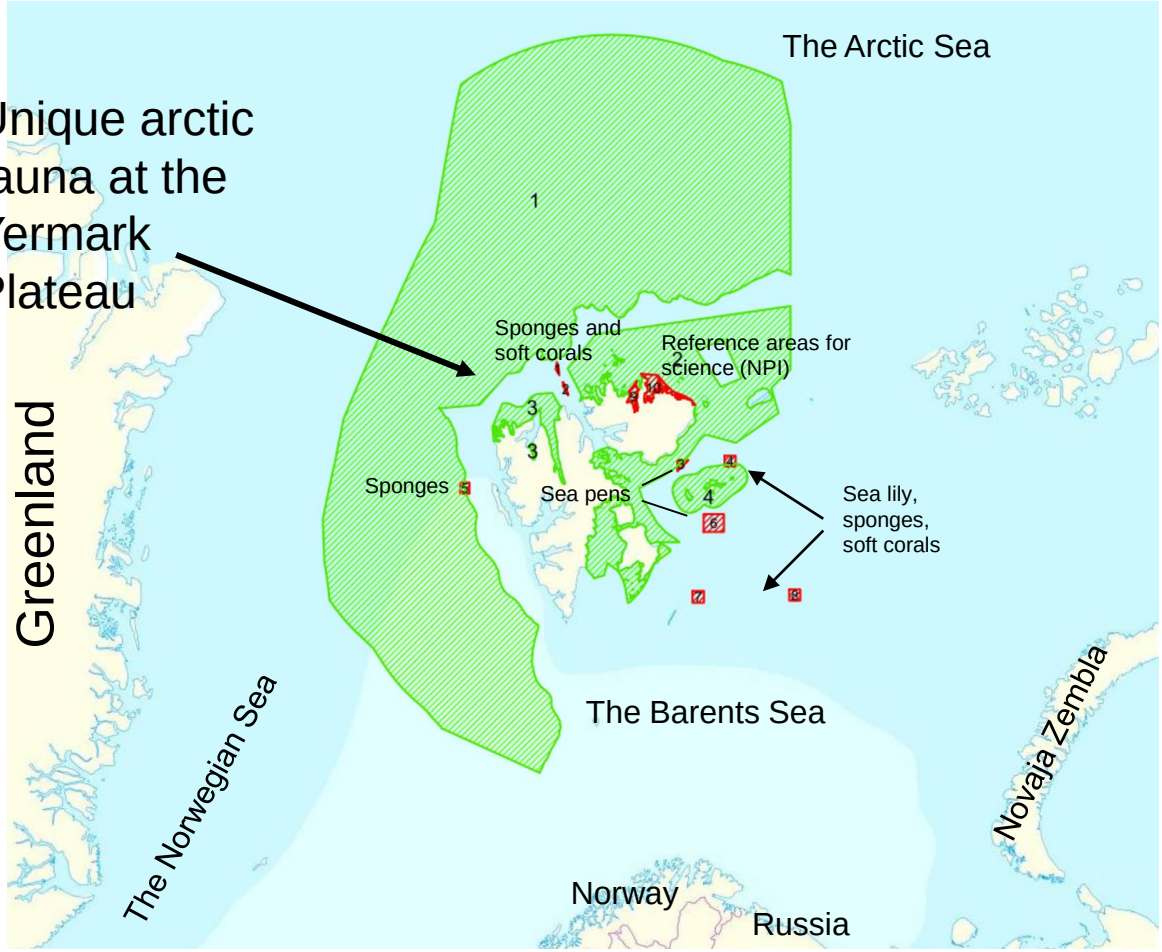

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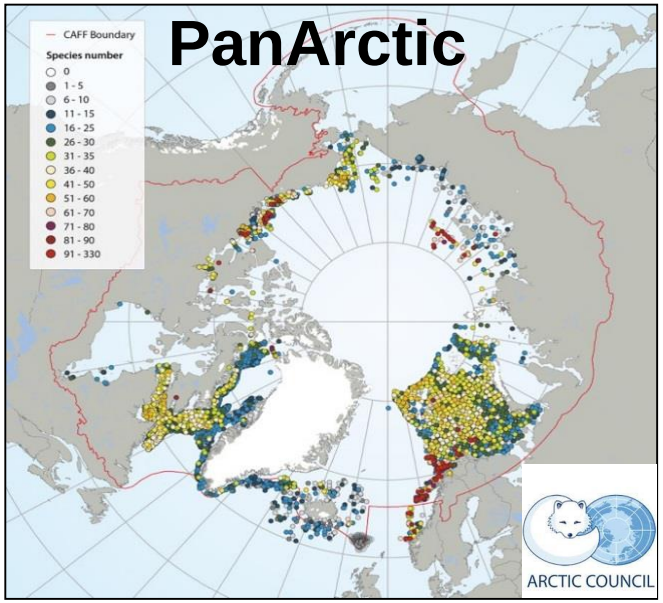
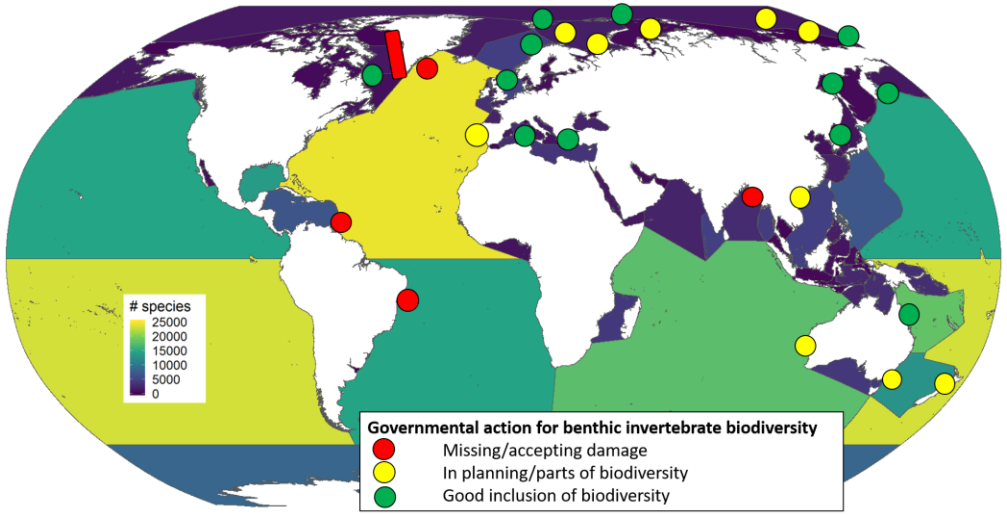


Jørgensen et all (2017) "Benthos" In: CAFF. State of the Arctic Marine Biodiversity Report (SAMBR). Conservation of Arctic Flora and Fauna, Akureyri Iceland.

WOA-2

Globally



Jørgensen et all (in prep until 2020) “Marine invertebrates" Chap 6b In: REGULAR PROCESS FOR GLOBAL REPORTING AND ASSESSMENT OF THE STATE OF THE MARINE ENVIRONMENT, INCLUDING SOCIOECONOMIC ASPECTS (WOA 2). UN.

For the long term monitoring and scientific work:

Thank to the joint Norwegian-Russian Ecosystem cruise of IMR and PINRO, all colleagues and staff on the ships, in the laboratories, and the offices.

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the Pan-Arctic Circumpolar Biodiversity Monitoring Plan (Arctic Council)
the ICES secretariat and working groups
- for their interest in this work and for implementing it into plans and reports.

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Defined Ecosystem: NEZ of the LME

Describe: Mega-fauna on the sea bed

Objective: to safeguard Norwegian Nature (NN) and protect Vulnerable Marine Ecosystems (VME)

Assessment: quantifying NNs and VMEs.

Management: establish closed areas, including MPAs for trawling