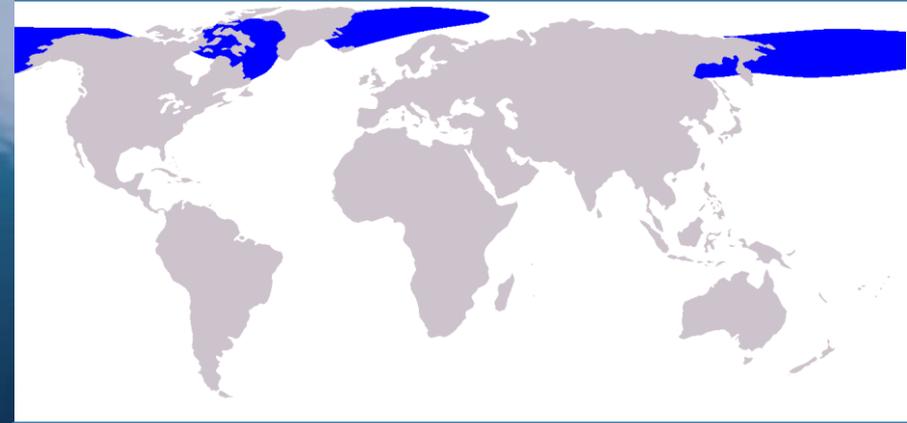




Groenlandse walvis  
> 200 jaar



Groenlandse haai  
400-500 jaar



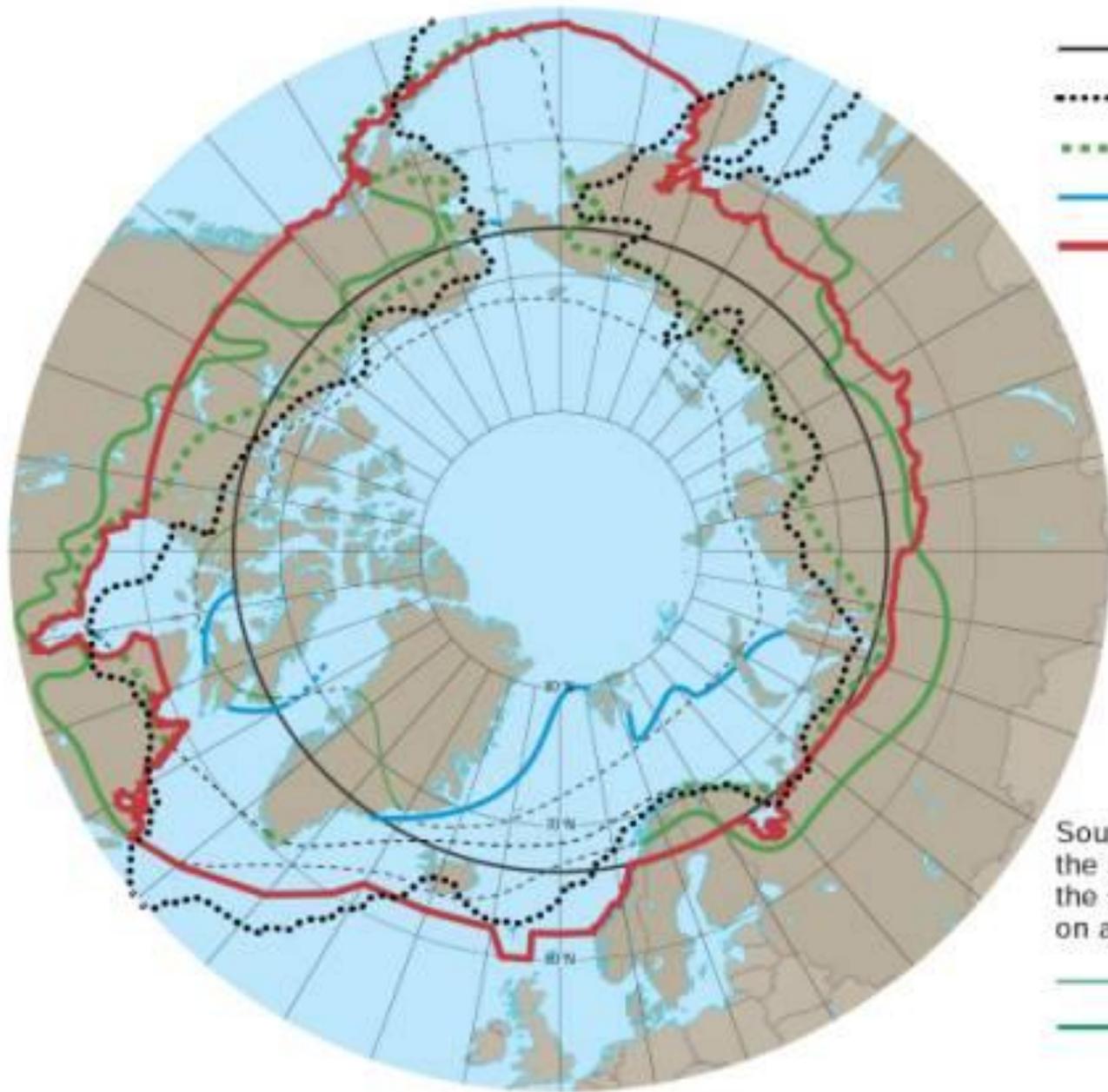
Noordkromp  
> 500 jaar



# Het Arctische Mariene Ecosysteem in het Licht van Visserijbeheer

14 september 2016, Martine van den Heuvel-Greve



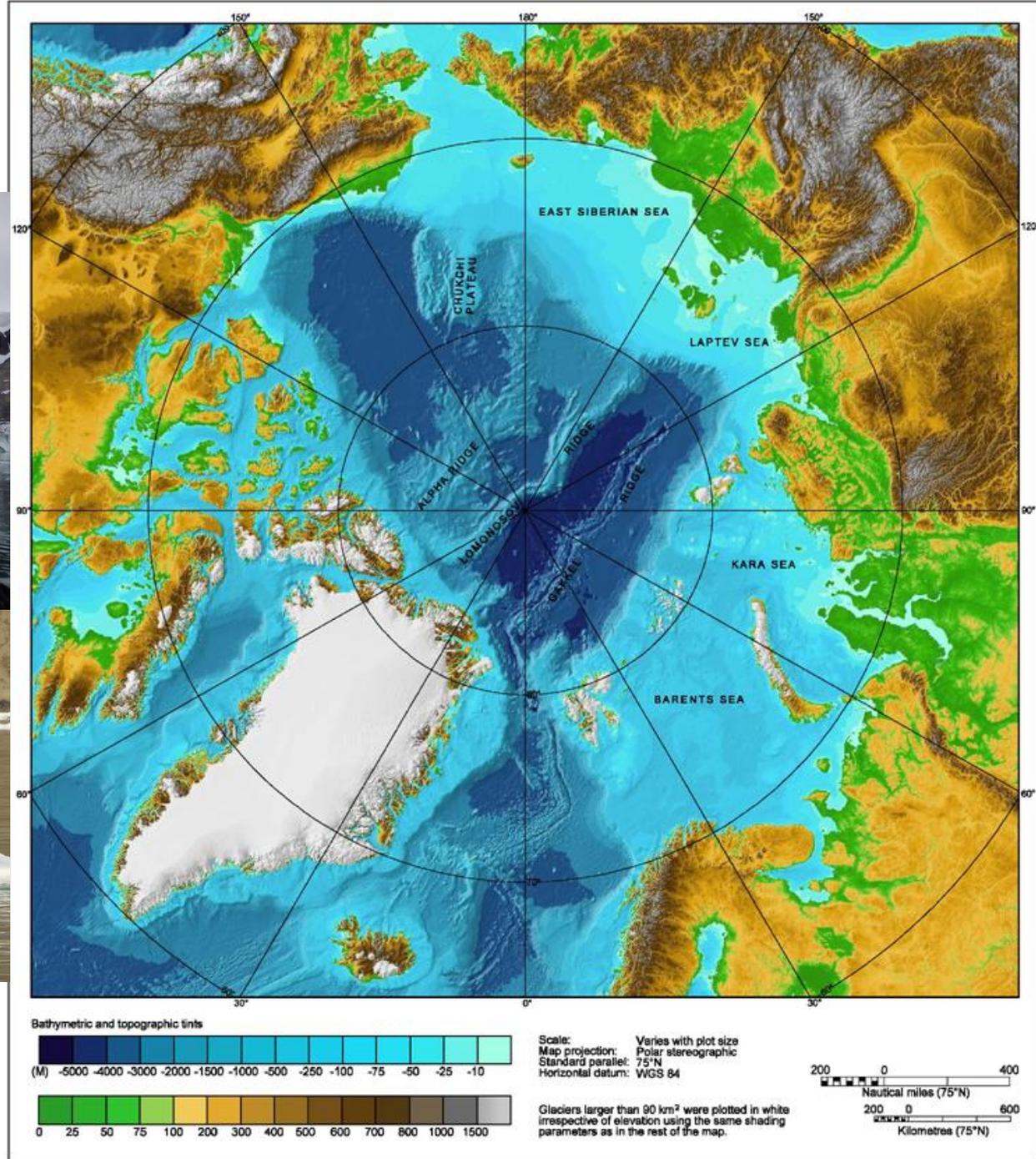


- Arctic Circle
- ..... 10°C July isotherm
- ..... Treeline
- Marine
- AMAP area

Southern boundaries of the High Arctic and the subarctic delineated on a basis of vegetation

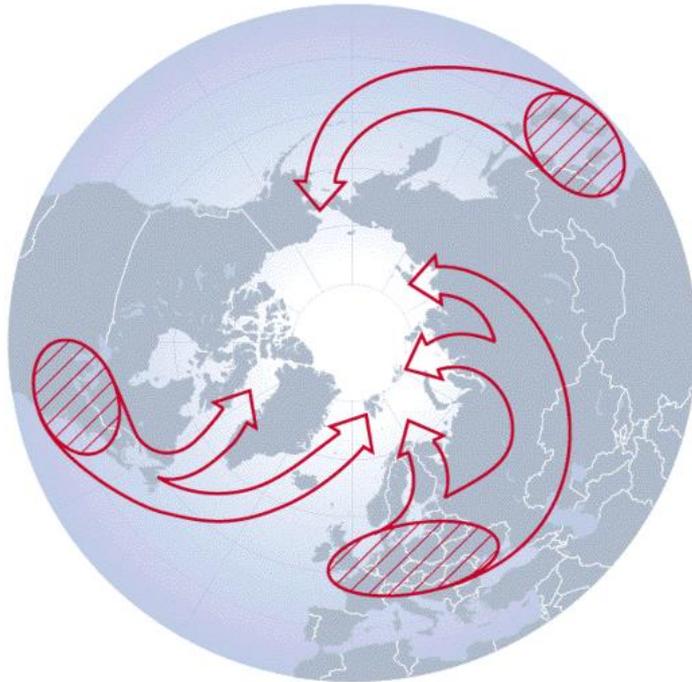
- High Arctic
- subarctic

# Kenmerken



# Lucht- en zeestromingen

Dominating air currents



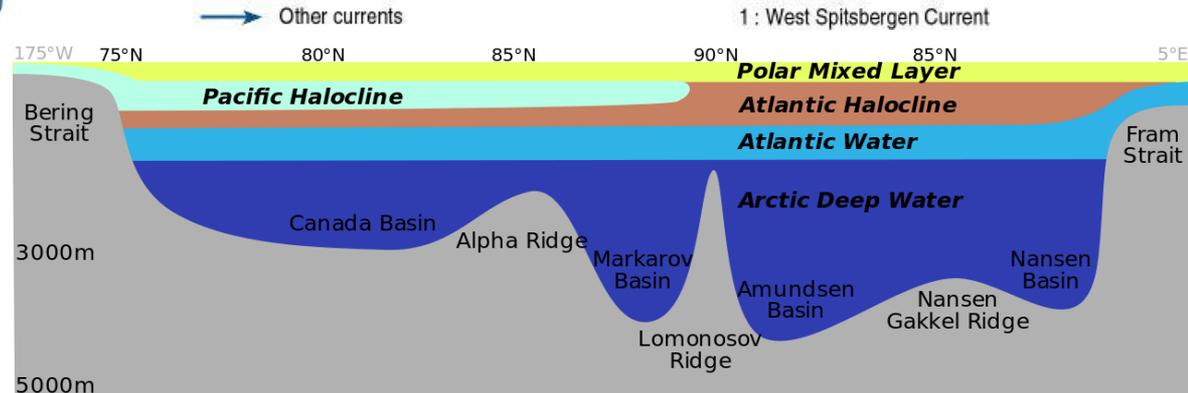
 Central industrial areas



[www.amap.no](http://www.amap.no)



 Atlantic currents  
 Other currents

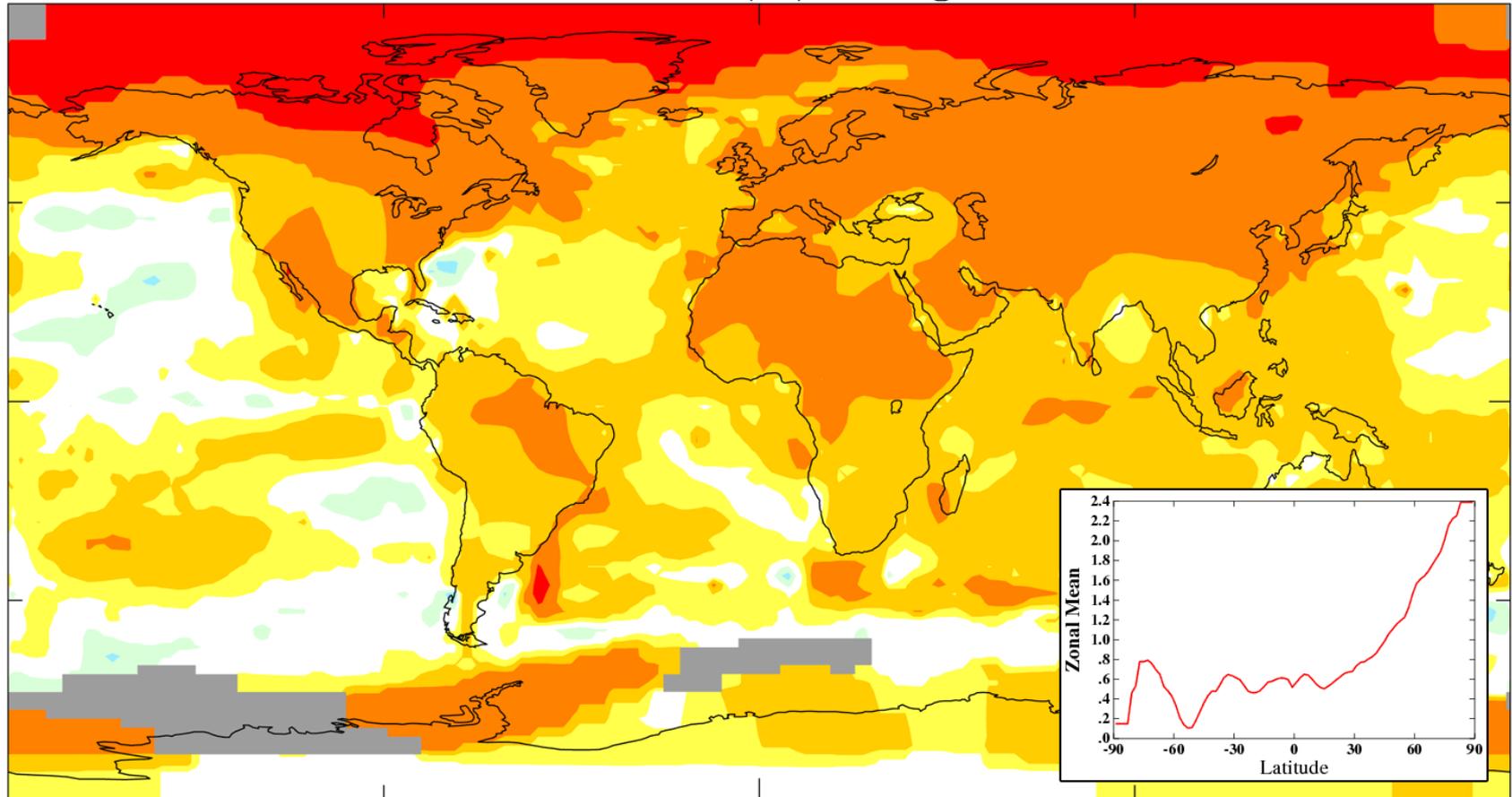


# Opwarming van de aarde

Annual D-N

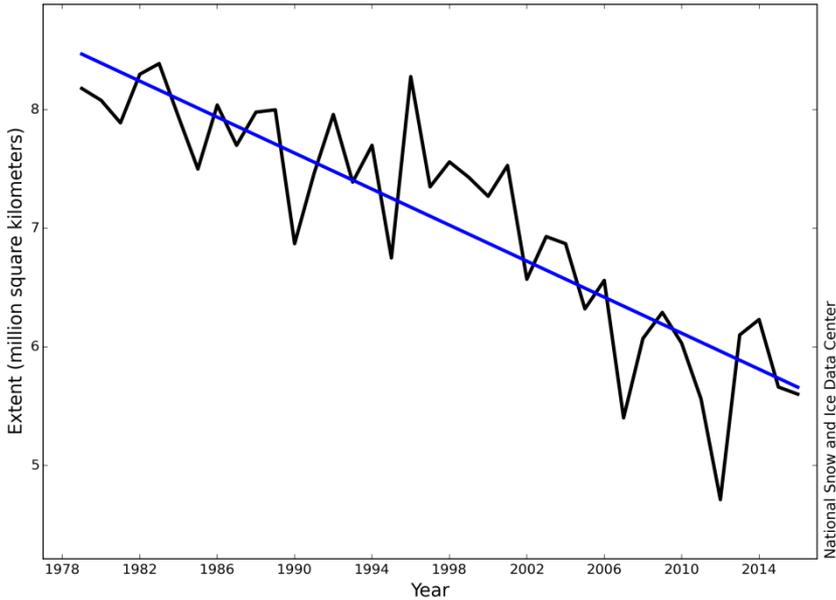
L-OTI(°C) Change 1960-2011

.70

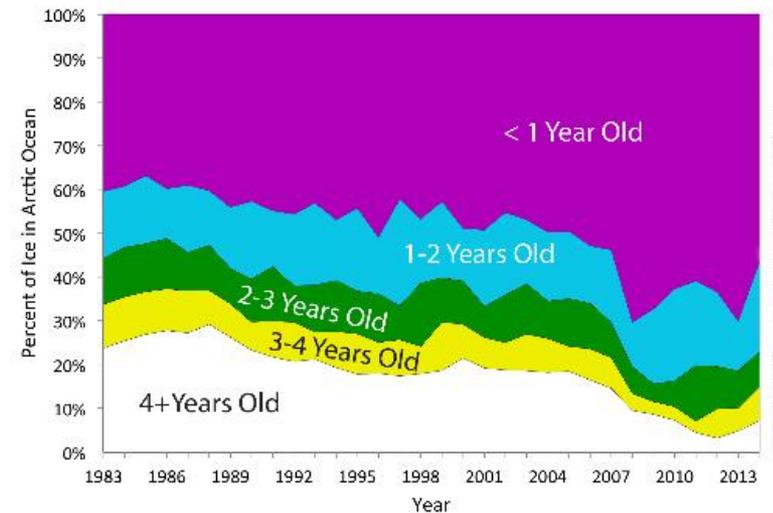
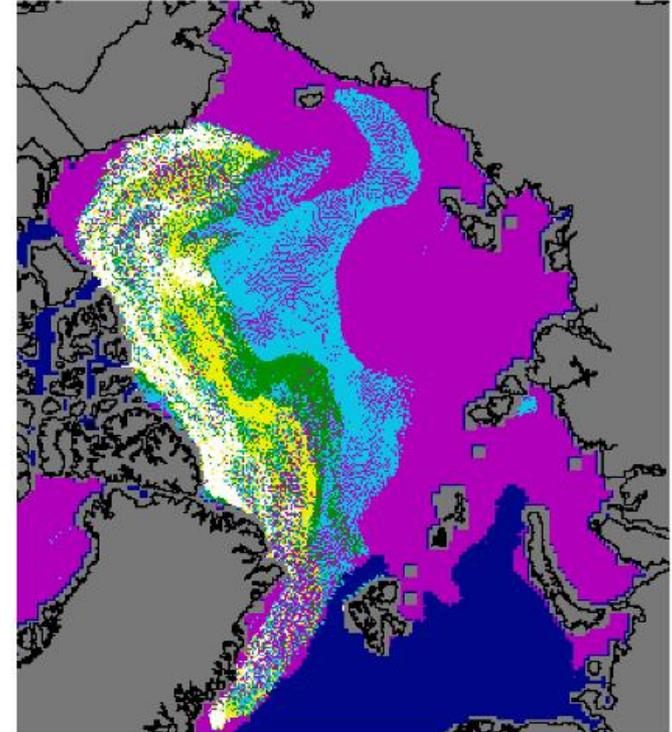


# Afname van zeeijs

Average Monthly Arctic Sea Ice Extent  
August 1979 - 2016



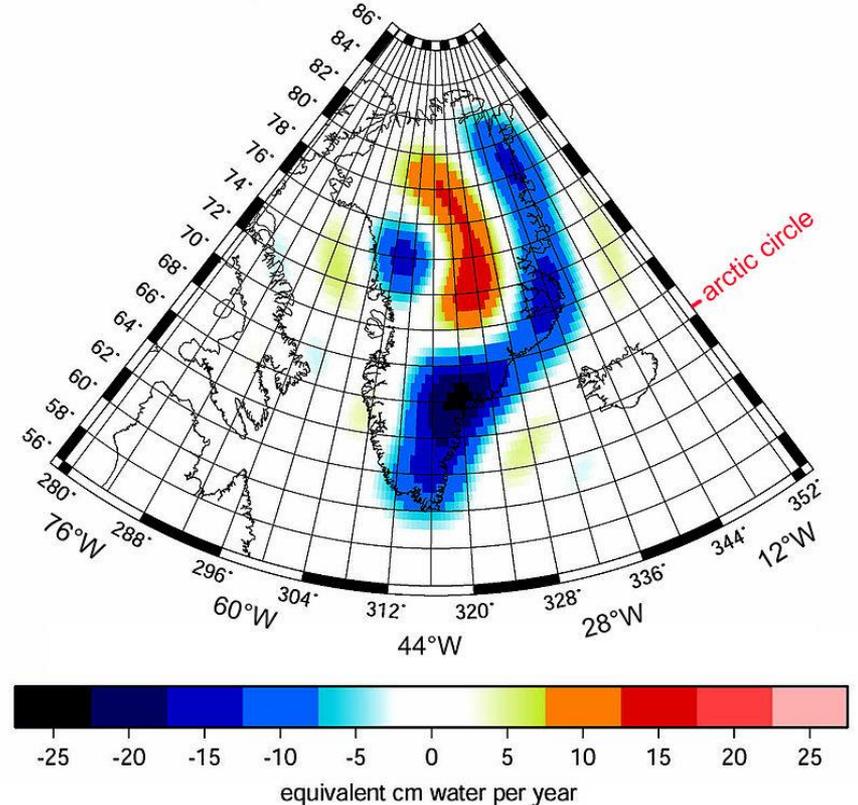
# Arctic Sea Ice Age, March 2014



# Afname van gletsjerijs



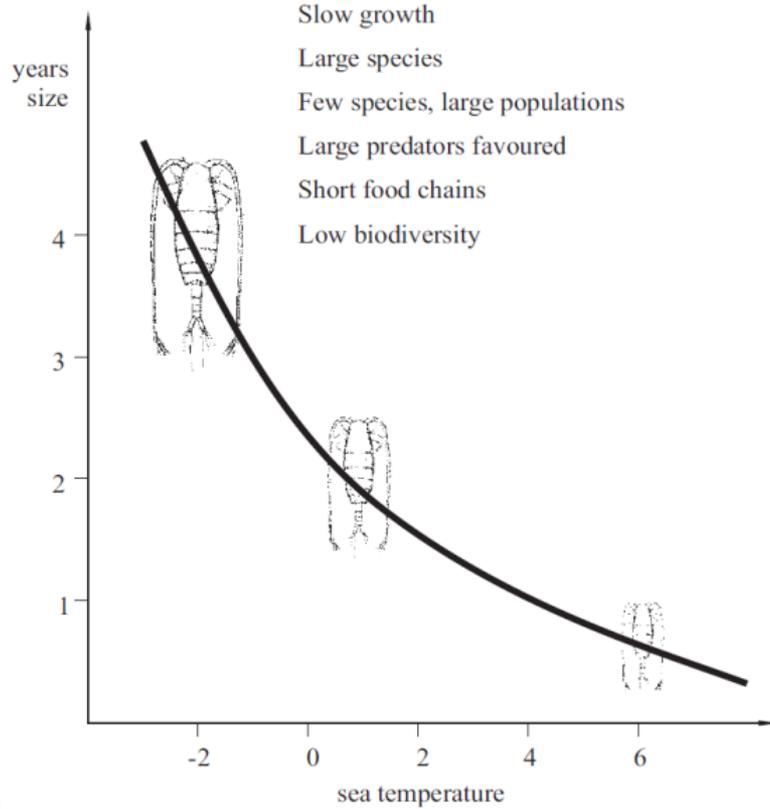
Greenland Mass Trend from GRACE 2003-2005



Bron:

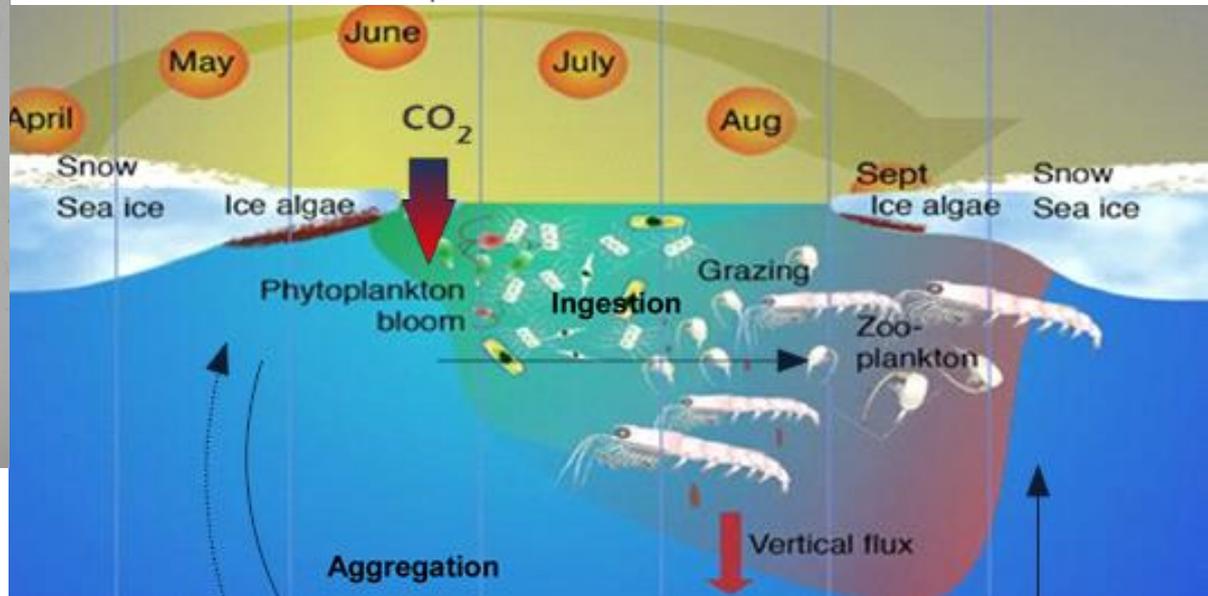
[http://earthobservatory.nasa.gov/Newsroom/NewImages/Images/grace\\_greenland\\_mass\\_trend\\_lrg.pdf](http://earthobservatory.nasa.gov/Newsroom/NewImages/Images/grace_greenland_mass_trend_lrg.pdf)

# Leven in kou

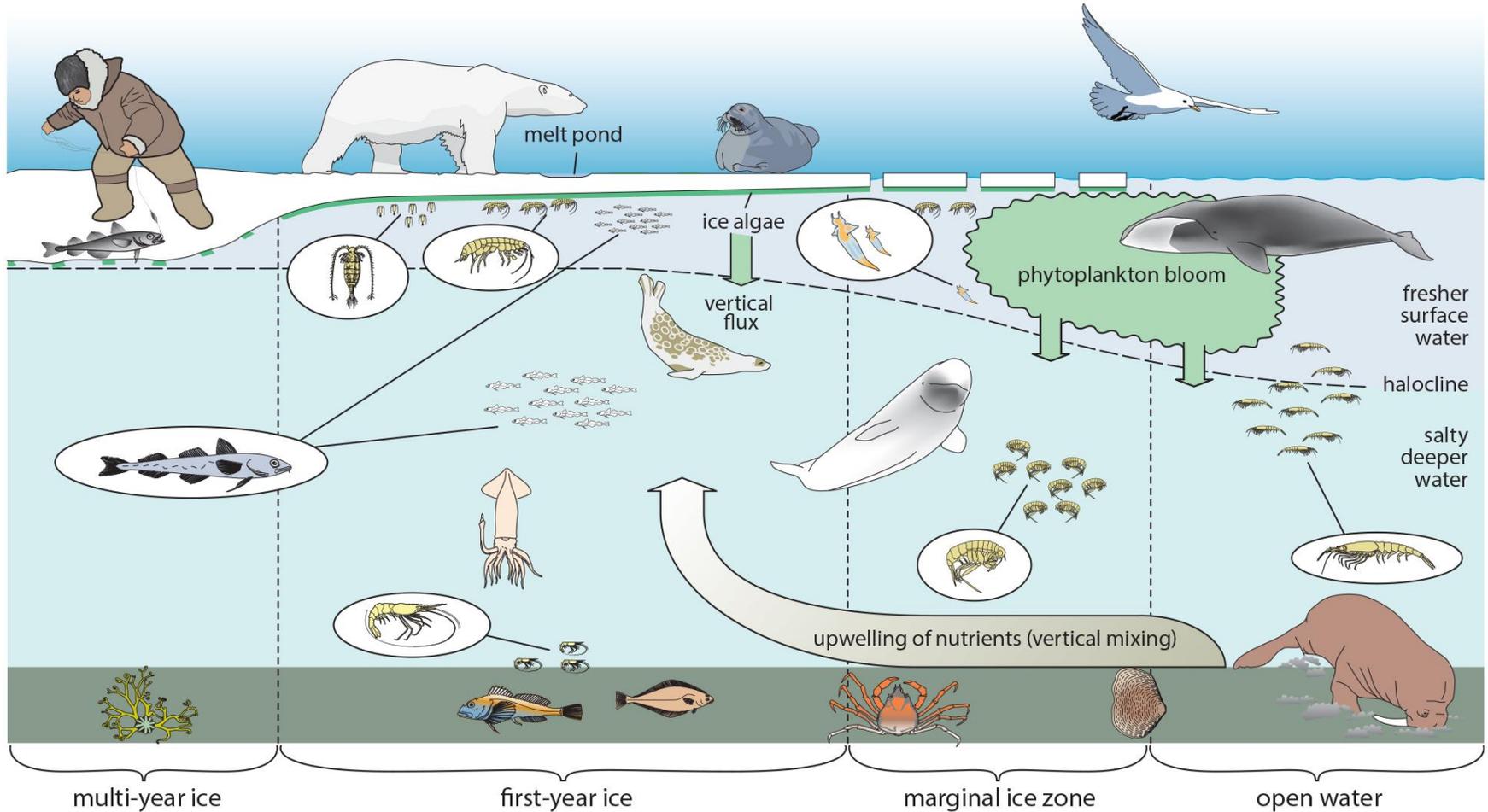


Slow growth  
 Large species  
 Few species, large populations  
 Large predators favoured  
 Short food chains  
 Low biodiversity

Fast growth  
 Small species  
 More species, smaller populations  
 Small predators favoured  
 Long food chains  
 High biodiversity



# Het mariene voedselweb



©AMAP

# Sleutelsoorten

## IJstrand:



[Apherusa glacialis](#)

[Gammarus wilkitzkii](#)

[Onisimus glacialis](#)

## Open water (pelagisch):



[Calanus glacialis](#)

[Calanus hyperboreus](#)

[Calanus marshallae](#)

## Zeebodem (benthisch):



[Astarte borealis](#)

[Ennucula tenuis](#)

[Hiatella arctica](#)



Sheiko & Mecklenburg

Database > Overview

## Datasets

ArcOD is actively consolidating existing datasets, rescuing datasets from scientific investigator's notebooks, and extracting data from scientific publications. The details describing each dataset, and a summary of what they contain, is then transferred to a "metadata" file. Most datasets require significant reformatting and cleanup, as well as careful checking of their species lists for changes in taxonomic naming and hierarchy (the relationship between species). Once completed, with help from the Alaska Ocean Observing System (AOOS) these datasets become posted for public interactive searches through both the Ocean Biogeographic Information System (OBIS) and the Global Biodiversity Information System (GBIF) web portals.

More than 200,000 records are now available, with an even larger number in various stages of processing. Please refer to the [OBIS](#) site for species-specific data queries.

Each ArcOD dataset, and the accompanying metadata is available for downloading in its entirety through this website. Full datasets may contain valuable information fields not available through OBIS or GBIF. Datasets are arranged by realms. Use of any use of datasets for publication **MUST** acknowledge the scientist/organization contributing the data, as well as the ArcOD site as the distributional source.

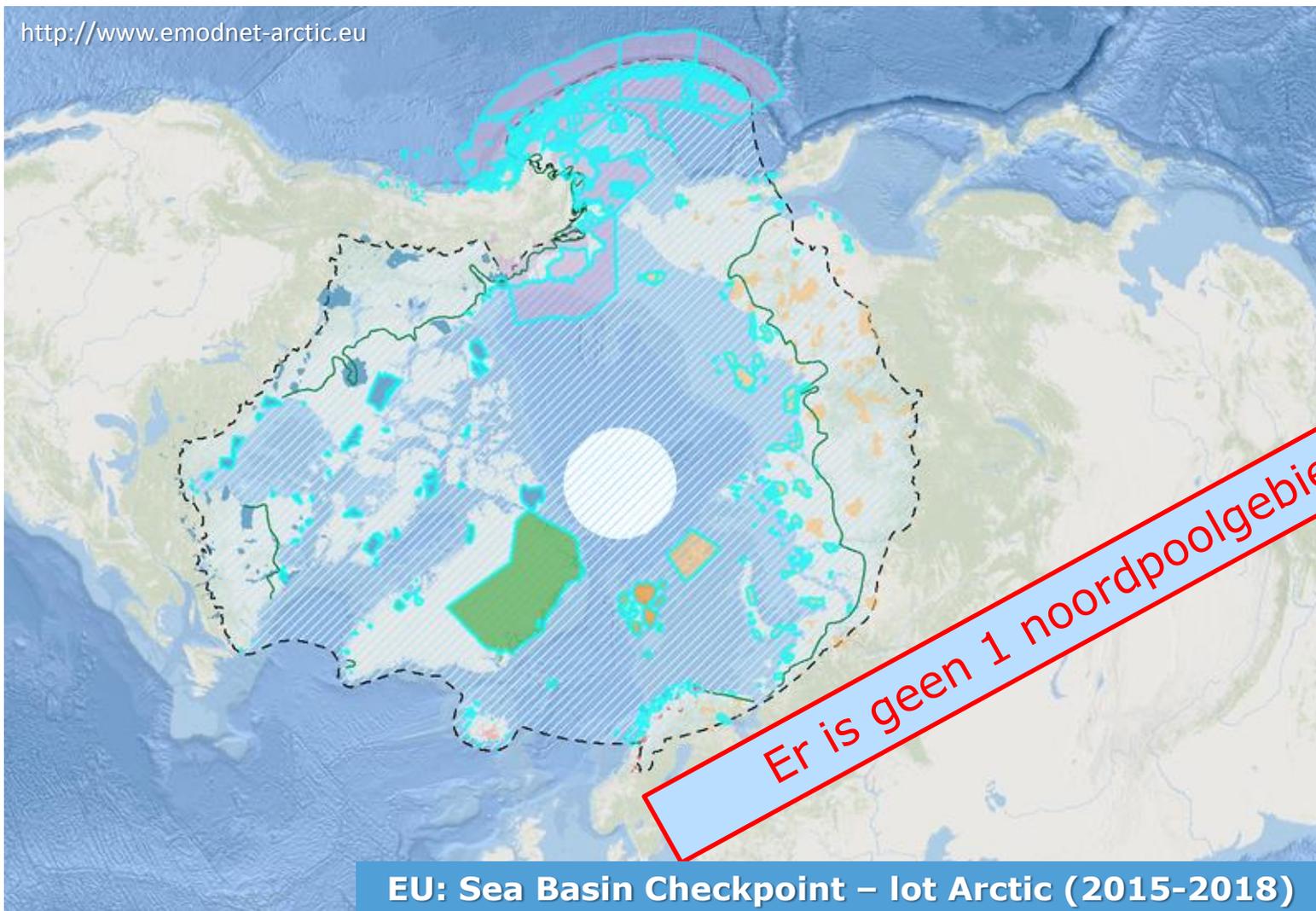


Site Design: Russ Hopcroft. All pictures on this website can be used for educational purposes with reference to this site, except for the posted presentations

14/519 Total view statistics

# Marine Protected Areas

<http://www.emodnet-arctic.eu>



# Visserij



Strategic Environmental Impact Assessment of development of the Arctic

September 2014

## Strategic Assessment of Development of the Arctic

Assessment conducted for the European Union



**Editors:** Adam Stepień, Timo Koivurova and Paula Kankaanpää  
**Lead authors:** Sigmar Arnarsson, Kim van Dam, Debra Justus, Kirsi Latola, Michał Łuszczuk, Gunnar Sander, Annette Scheepstra, Adam Stepień, Mikko Strahlendorf

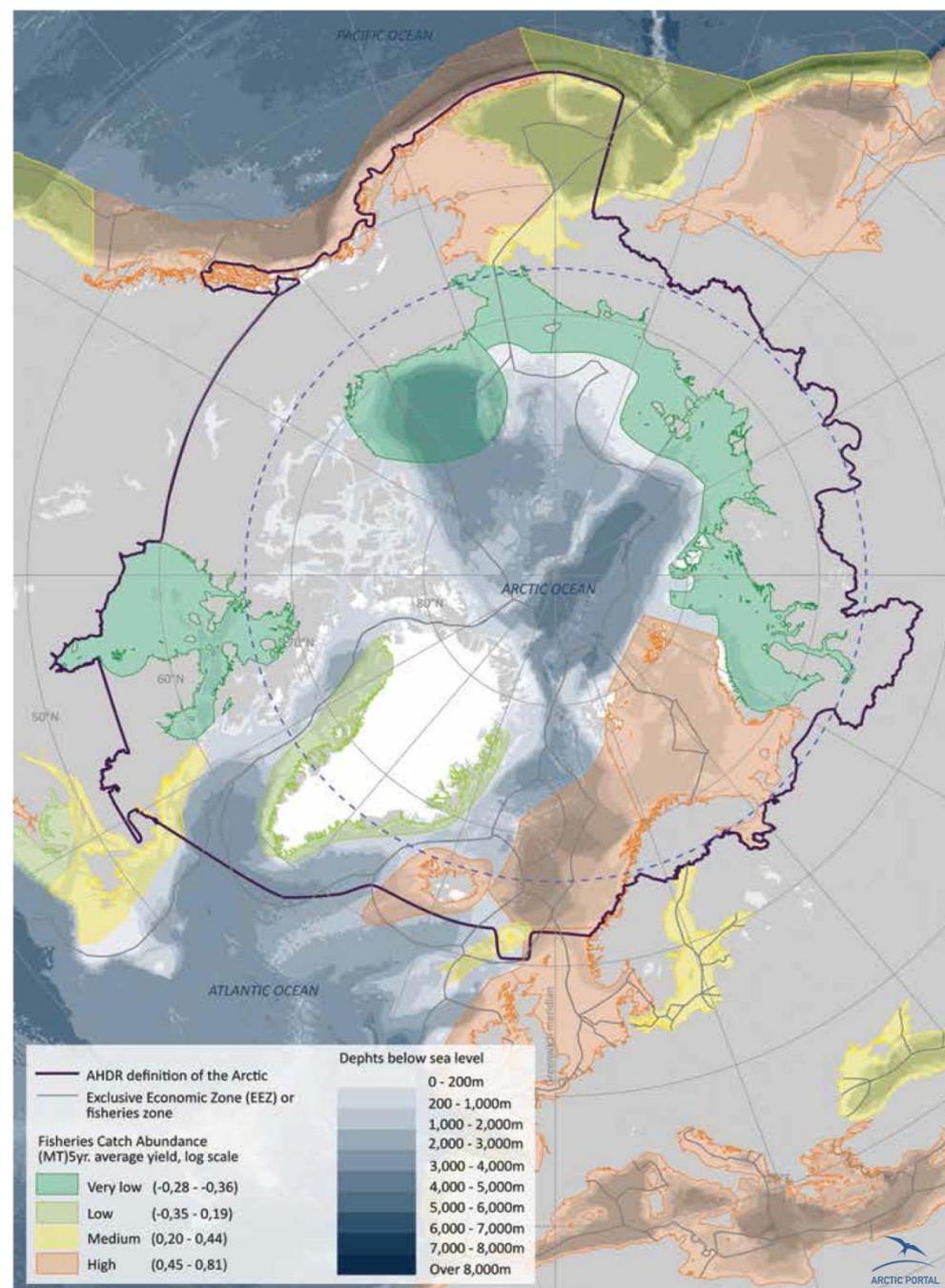


Figure 5.2: Large Marine Ecosystems – Catch Abundance  
 Source: Arctic Portal 2014.

# Status visbestanden Arctisch gebied

- Koolvis (Pollock, Bering Zee)
- Kabeljauw (NE Arctic cod, Pacific Cod)
- Kabeljauw (Noorse kust ten noorden van 62°N)
- Schelvis (NE Arctic haddock)
- Zwarte koolvis (Arctic saithe)
- Lodde (Barents/Norw. Zee, IJsland/Jan Mayen)
- Roodbaars (Beaked: Barents/Norw. Zee, IJsland/Groenland, SE Groenland), Golden: Barents/Norw. Zee)
- Heilbot (Greenland halibut)
- Opiliokrab (Snowcrab)



# Meer informatie?

E-mail:

[martine.vandenheuvel-greve@wur.nl](mailto:martine.vandenheuvel-greve@wur.nl)

Website Wageningen Marine Research:

[www.wur.nl/marine-research](http://www.wur.nl/marine-research)

Website Arctisch onderzoek Wageningen University & Research:

[www.arctic.wur.nl](http://www.arctic.wur.nl)

[www.emodnet-arctic.eu](http://www.emodnet-arctic.eu)

