

WGICA Integrated Ecosystem Assessment Report for the Central Arctic Ocean

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Co-chairs: John Bengtson (USA, NOAA) and Sei-Ichi
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ICES/PICES/PAME WGICA

- Working Group on Integrated Ecosystem Assessment of the Central Arctic Ocean
- ICES – **International Council for Exploration of the Sea**
 - Science and Advice
- PICES – **North Pacific Science Organization**
- PAME – **Protection of the Arctic Marine Environment** WG, Arctic Council
- Established 2015 – 3-year period: 2016-2018 – Renewed: 2019-2021
- 3 co-chairs:
 - John Bengtson, NOAA, USA
 - Sei-Ichi Saitoh, Univ. of Hokkaido, Japan
 - Hein Rune Skjoldal, IMR, Norway
- 4th meeting in Sapporo, Japan, 8-10 May 2019

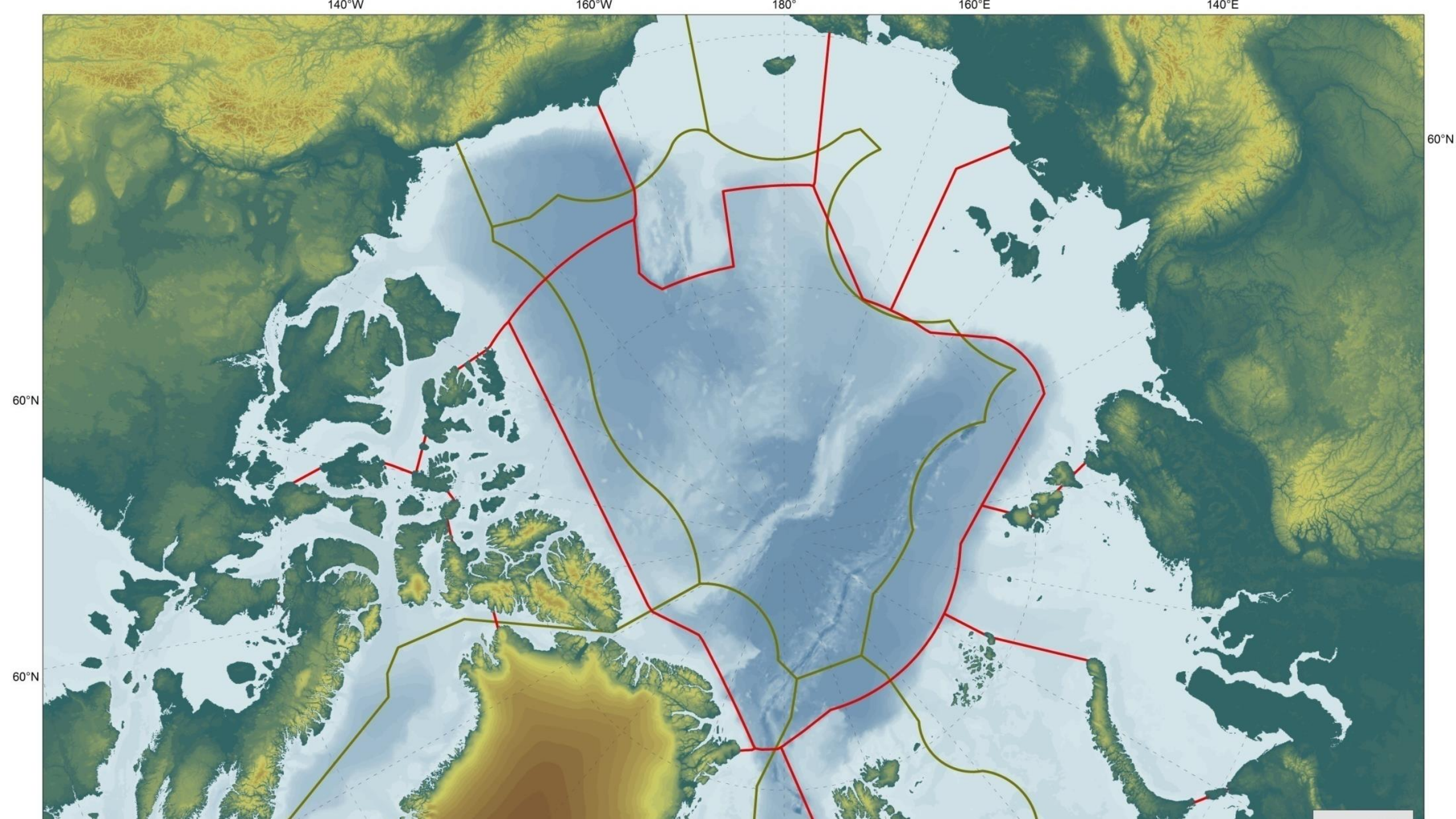


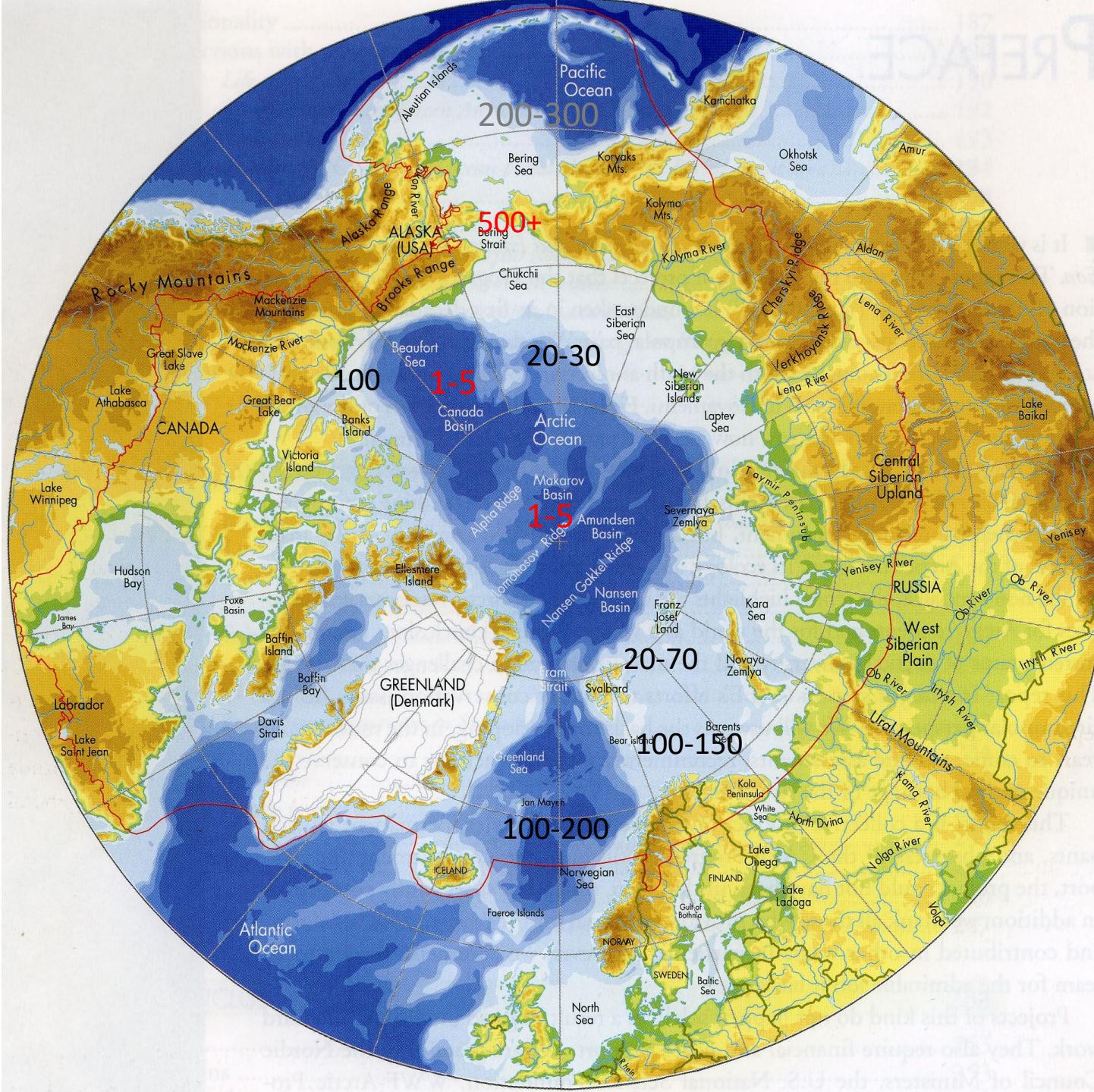
ICES/PICES/PAME WGICA

- Working Group on Integrated Ecosystem Assessment of the Central Arctic Ocean
- 3rd meeting in St. John's, Newfoundland, Canada

IEA report for the CAO

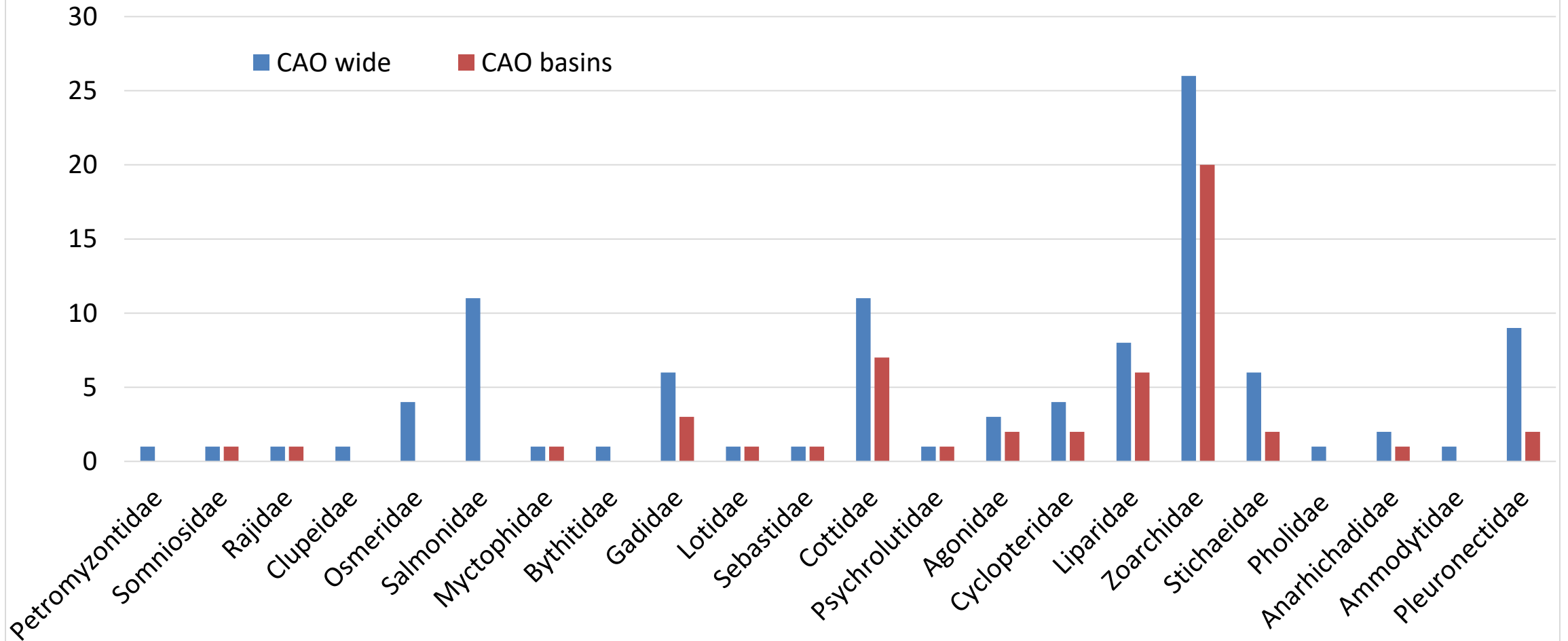
- **Integrated Ecosystem Assessment of the Central Arctic Ocean: Ecosystem Description and Vulnerability Characterization**
- Ecosystem description with emphasis on **spatial aspects** and trophic (**food-web**) connections
- Oceanography, plankton, ice biota, benthos, fish, birds and marine mammals
- Vulnerability
 - general aspects (concepts, terminology, methodology)
 - Initial considerations of vulnerability to human activities – climate, pollution, fisheries,
 - **Shipping**



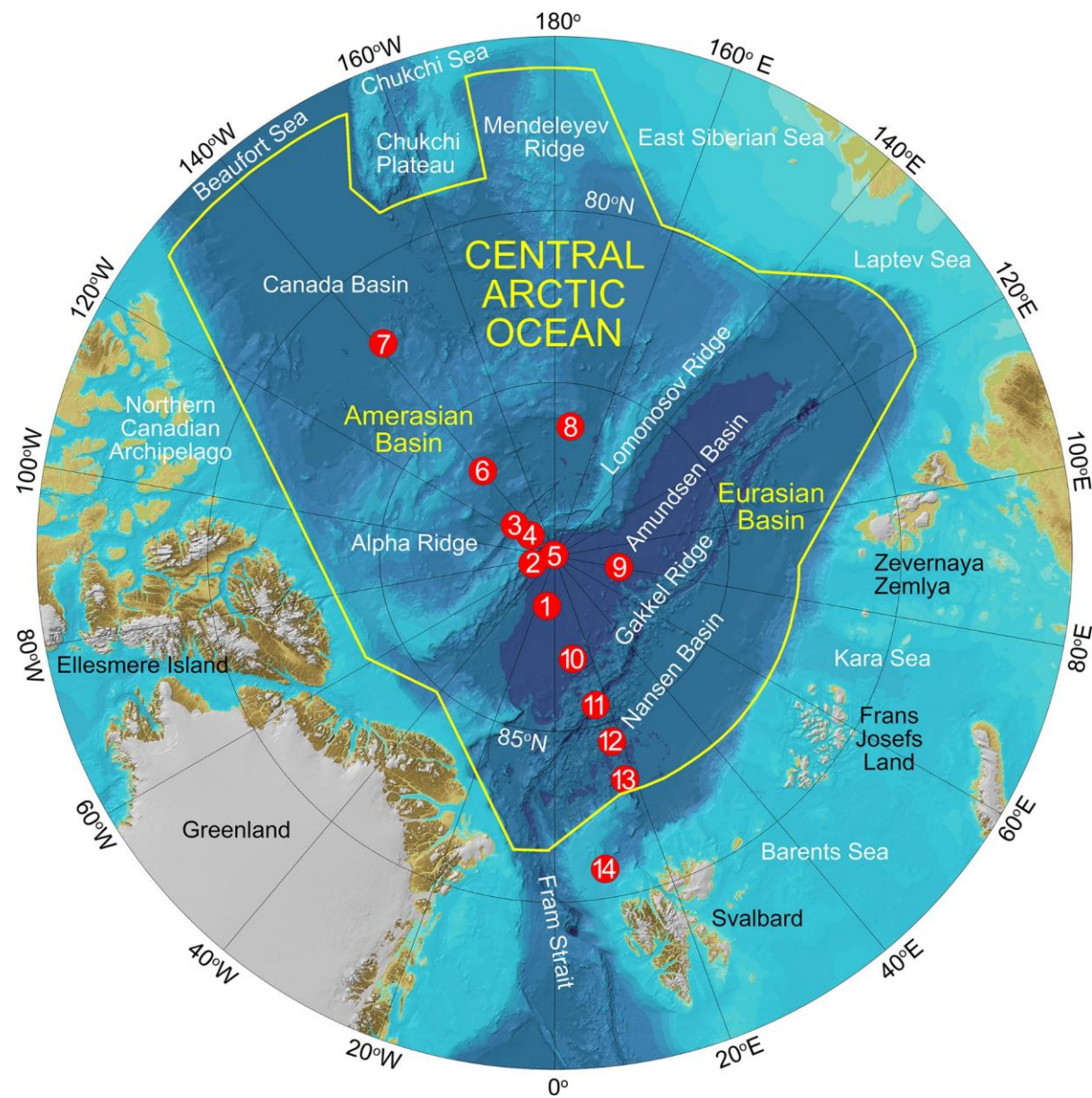


Annual rate of primary production is very low. One order of magnitude lower than e.g. Barents or Bering Seas Ca 10 g C m⁻² year⁻¹

No of fish species – 101/51



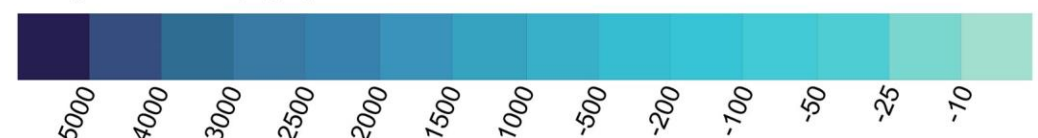


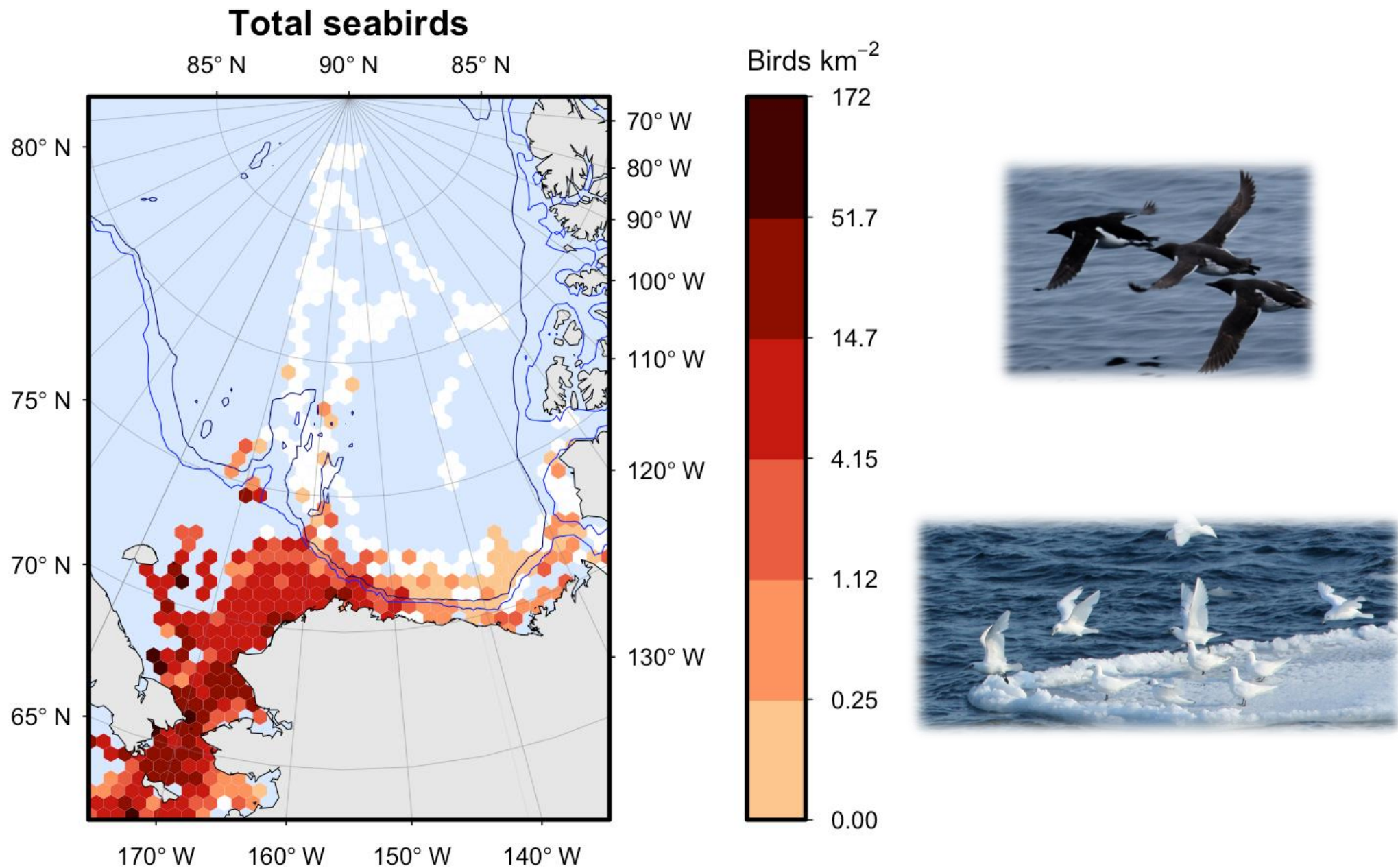


Swedish ice-breaker
 'Oden', 2016 cruise

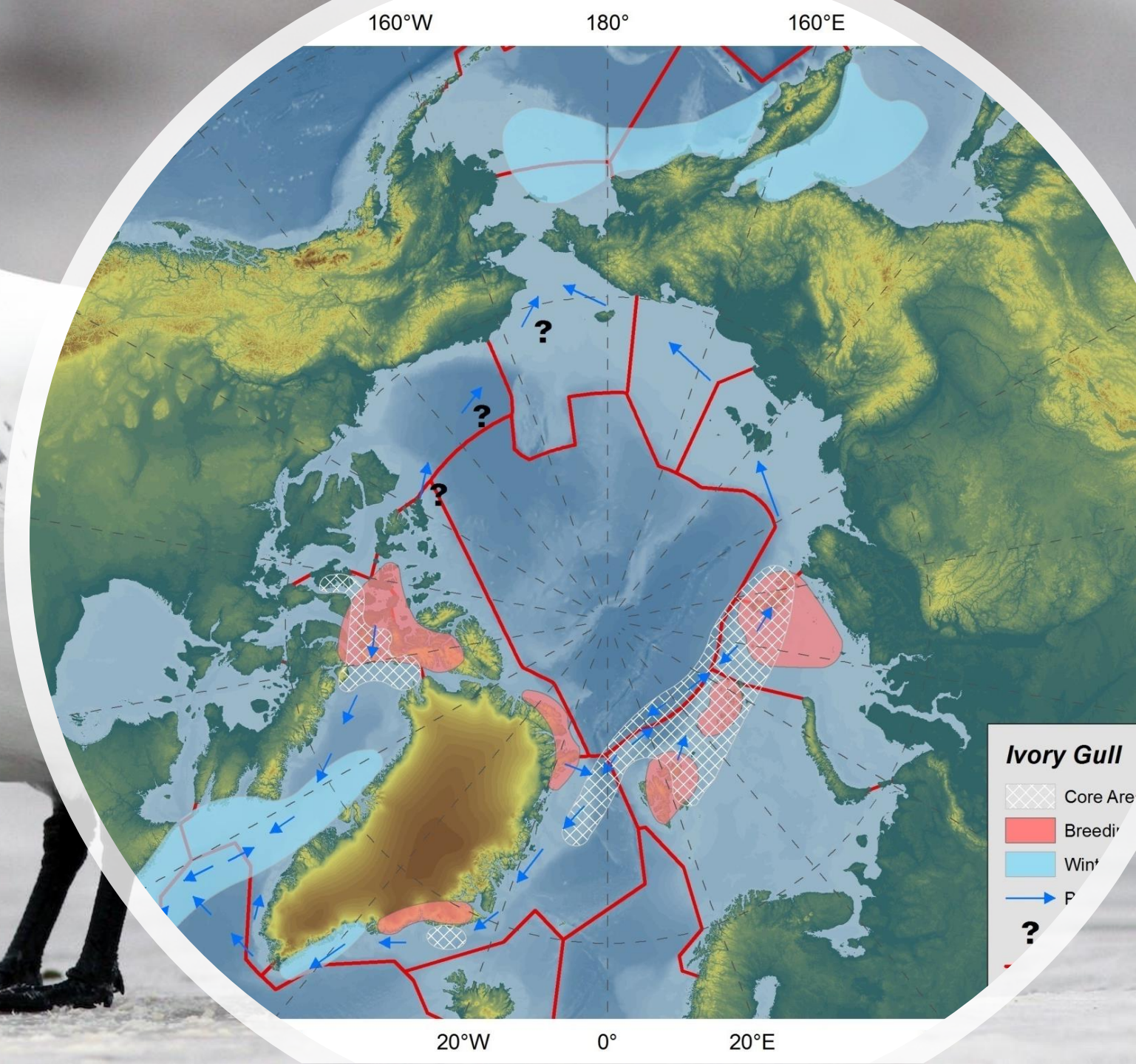
Pauline S. Lejonmalm
 et al. - manuscript

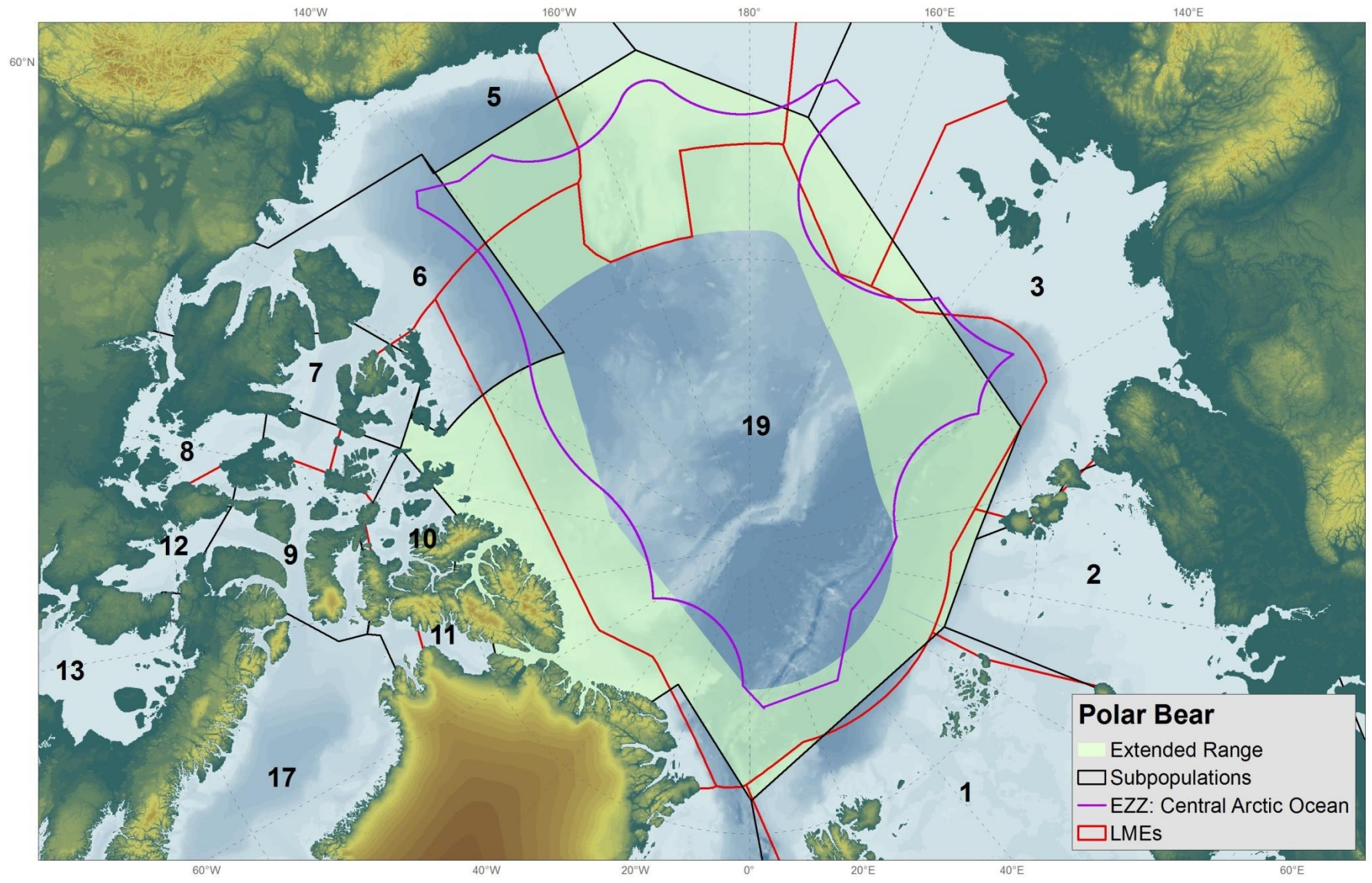
Bathymetric and topographic colours indicate meters above and below Mean Sea Level

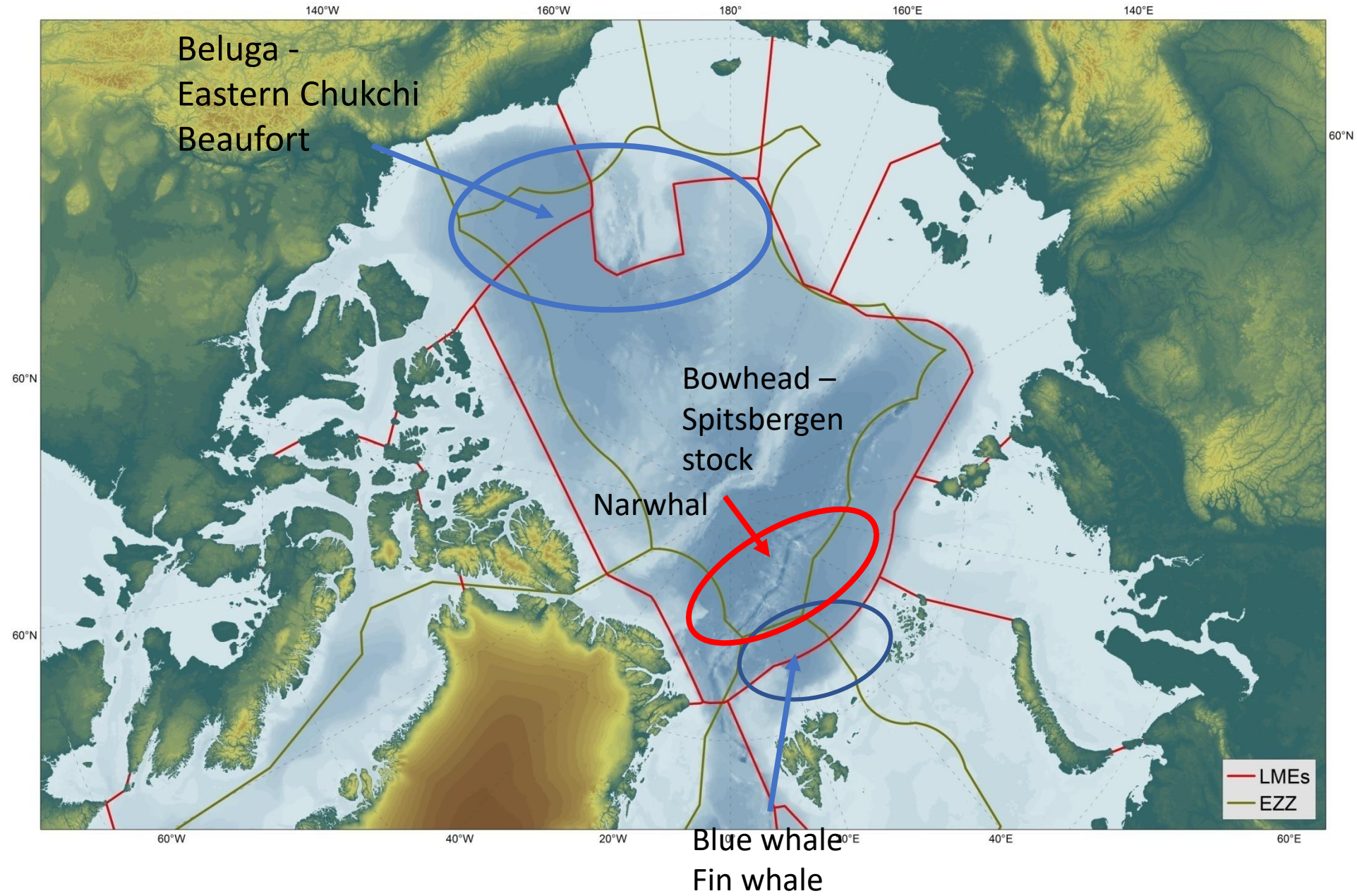




USFWS survey data, 2006-2017 (Kuletz, unpubl data); maps by D. Cushing







Thank you.

