

Scale integration and EA
implementation:
Goals of the 2nd EA Conference

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Welcome to Bergen – the Capital of Norway



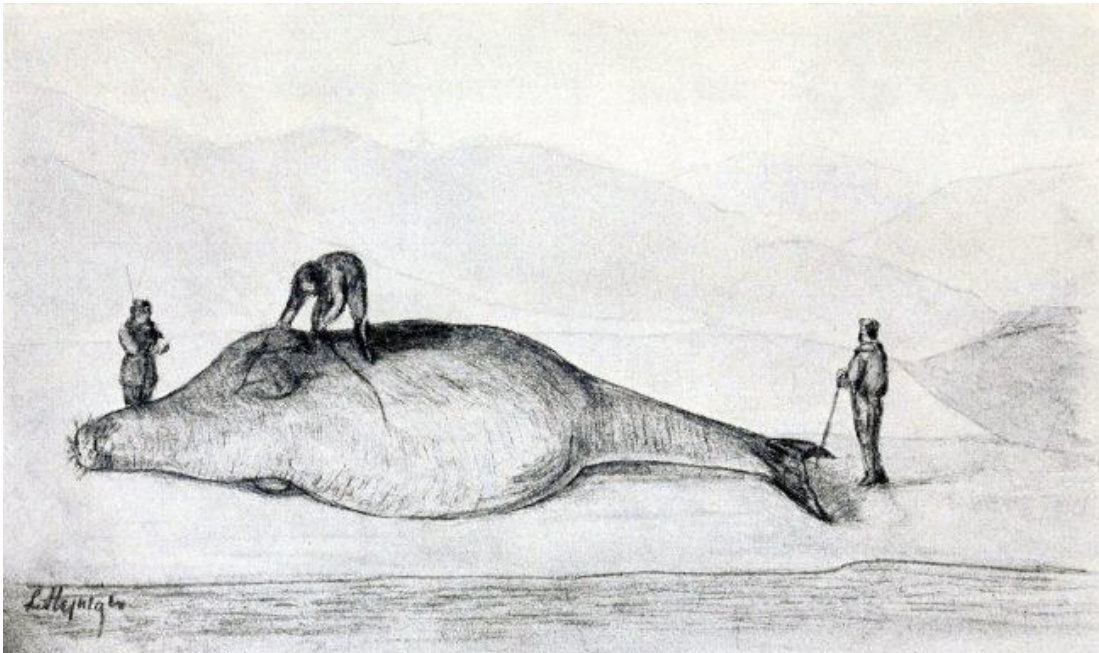
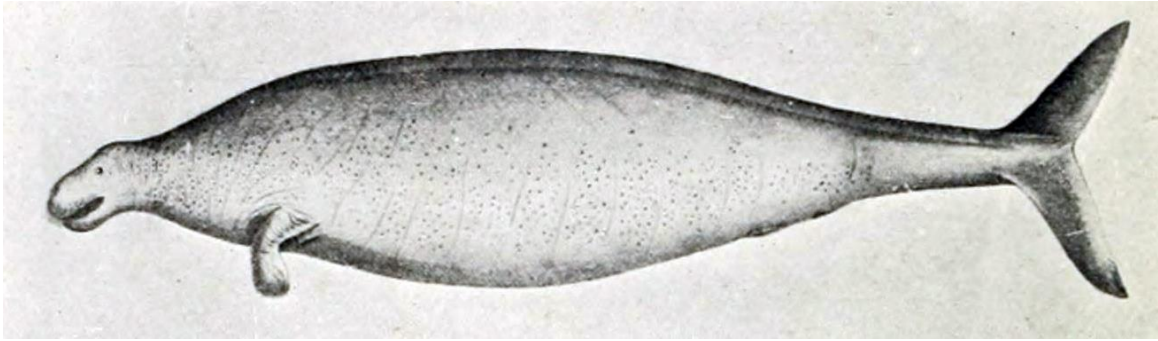
The rest of my talk

- A story
- Loss of biodiversity (= nature)
- Sustainability
- The Ecosystem Approach to management – EA
- The scale issue
- Goals of the conference

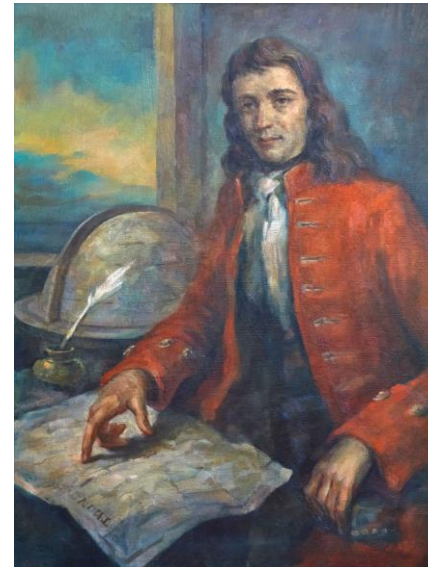


A story about the discovery of Alaska –
Bolshaya Zemlya, Great Land

Steller's sea cow



Sea bear
Sea lion
Sea otter



De Bestiis Marinis

or,

**The Beasts of
the Sea**

by

**Georg Wilhelm
Steller**

1751

b.1709-d.1746

Sad end to the story

- Steller returned to Petropavlovsk in 1742 bringing sea otter pelts
- Resulted in 'Klondyke' over the next years and decades – not for gold but for fur
- Sea otter hunted to near extinction
- Steller's sea cow extinct (1768) <30 years after its description
- Large number of Aleut people were killed in conflicts

Loss of biodiversity

- An even greater issue than climate
- A biodiversity time line
 - 1992 Rio – UN Convention on Biological Diversity
 - 2002 Johannesburg – 2010 Target: slowing the rate of loss in biodiversity
 - 2012 Rio – New set of targets - Aichi 2020
- Why are we losing biodiversity? Because someone is benefitting economically
- We are trading nature for money
- We are on a path of global non-sustainability
- No check on the totality of loss – we are losing biodiversity one piece at a time

Sustainability

- Brundtland Commission 1983-1987
- conflict between globalized economic growth and accelerating ecological degradation
- strike a better balance of human and environmental well-being
- The report 'Our common future' in October 1987
- 'meets the needs of the present without compromising the ability of future generations to meet their own needs' – transgenerational equity
- Need versus greed



Now one of The Elders – a group founded by Nelson Mandela

The answer is: EA

- Ecosystem Approach to management – EA
- Aka Ecosystem-based management (EBM) and other names – it is all the same – a holistic management concept
- We do have:
 - A definition
 - Principles
 - Framework for implementation
 - Guidelines

EA definition and framework

Definition: *Ecosystem based management is:*

the comprehensive, integrated management of human activities

based on best available scientific and traditional knowledge about the ecosystem and its dynamics,

in order to identify and take action on influences that are critical to the health of ecosystems,

thereby achieving sustainable use of ecosystem goods and services and maintenance of ecosystem integrity.

EA Framework:

- Identify
- Describe
- **Ecological objectives**
- Integrated Ecosystem Assessment
- **Valuation**
- **Management actions**

The issue of scale

Scale is important

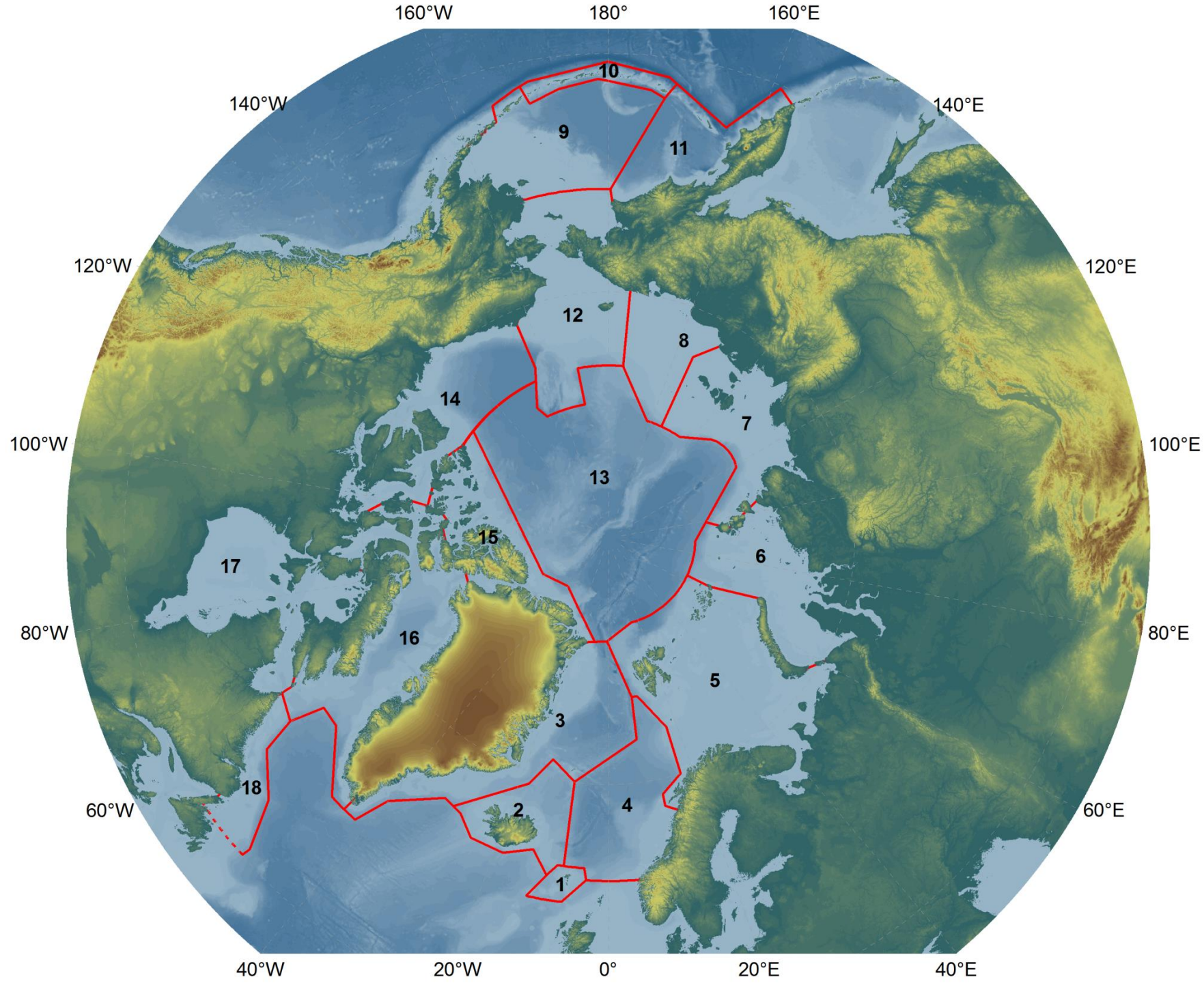
How do we deal with it?

... both in science and
management

Scale integration

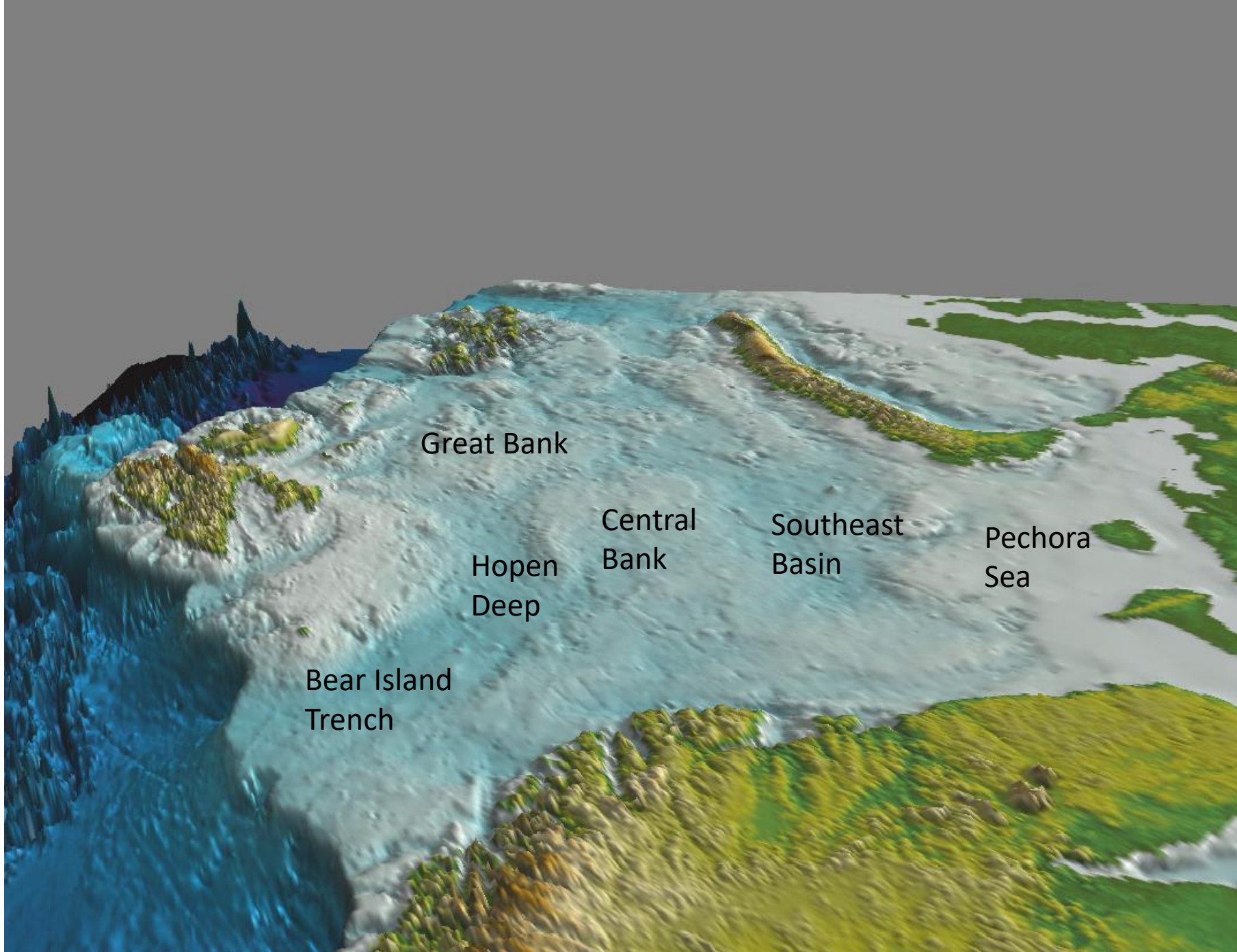
The issue of scale

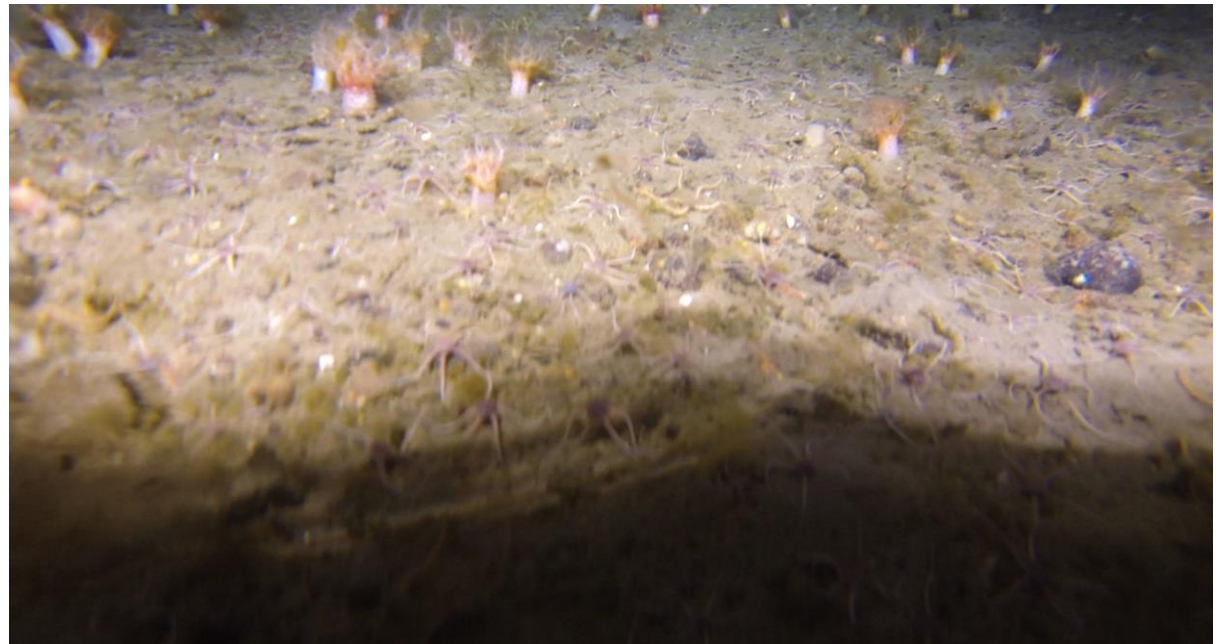
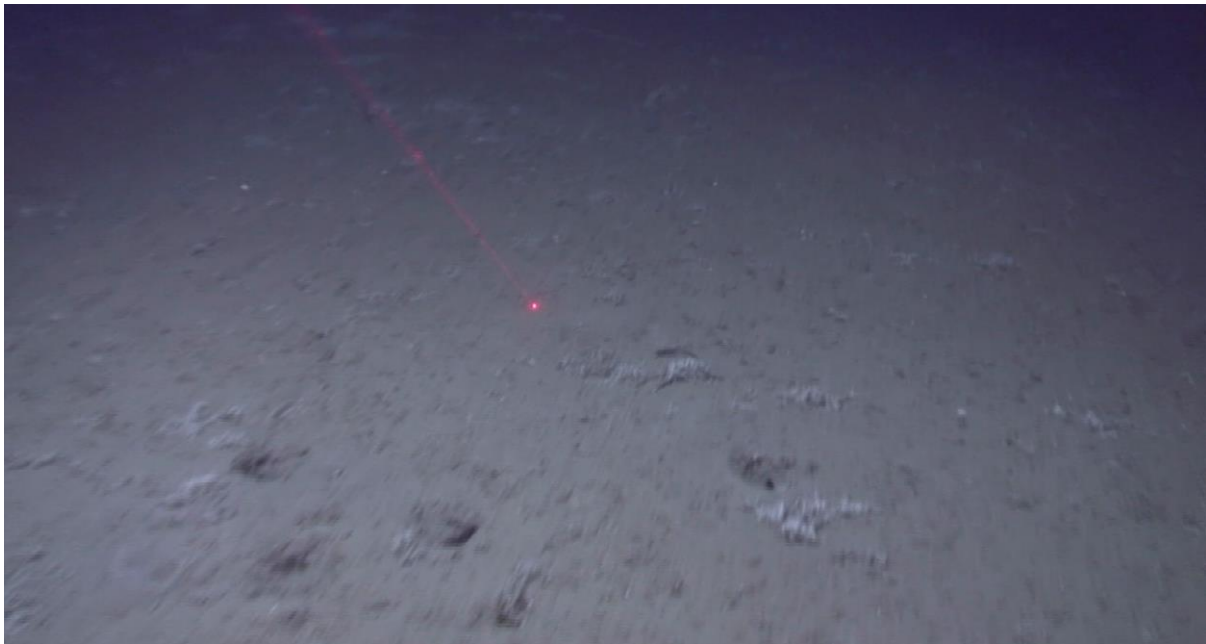
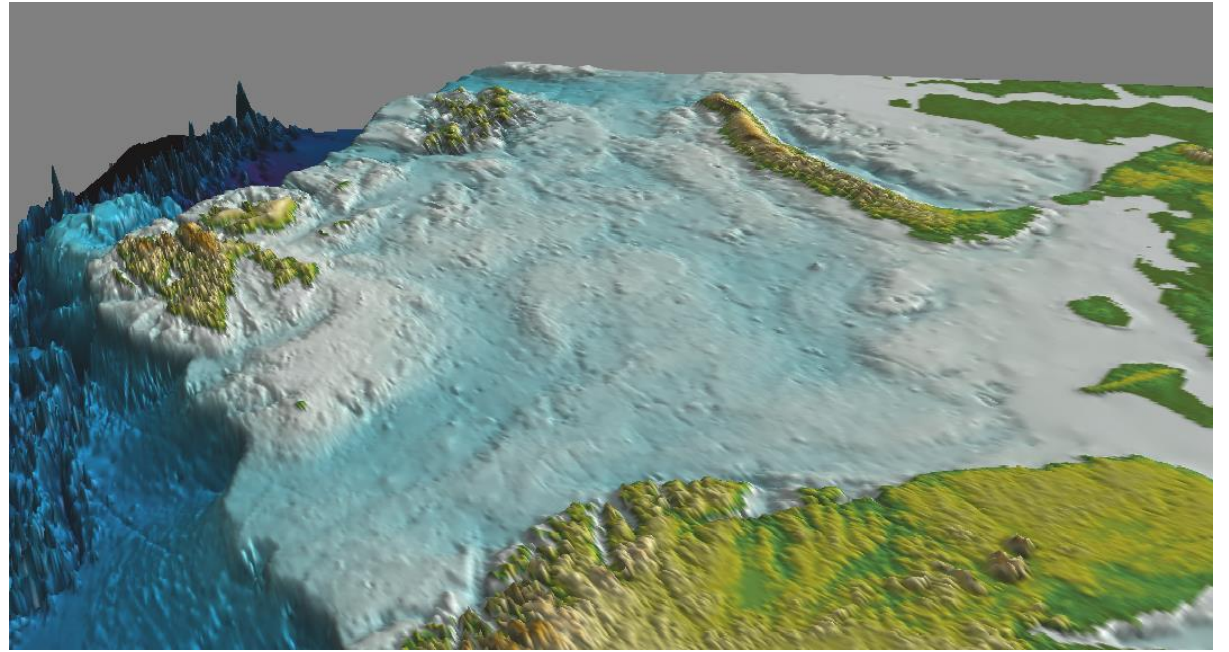
- Scale is important – both nature and humans operate on many scales, from very small to very large
- ‘Ecosystem’ is defined without reference to scale, as
- *"a dynamic complex of plant, animal and microorganism communities and their non-living environment interacting as a functional unit"* (UN CBD, Article 2)
- Large Marine Ecosystems (LMEs) represent a choice of scale – L for ‘large’

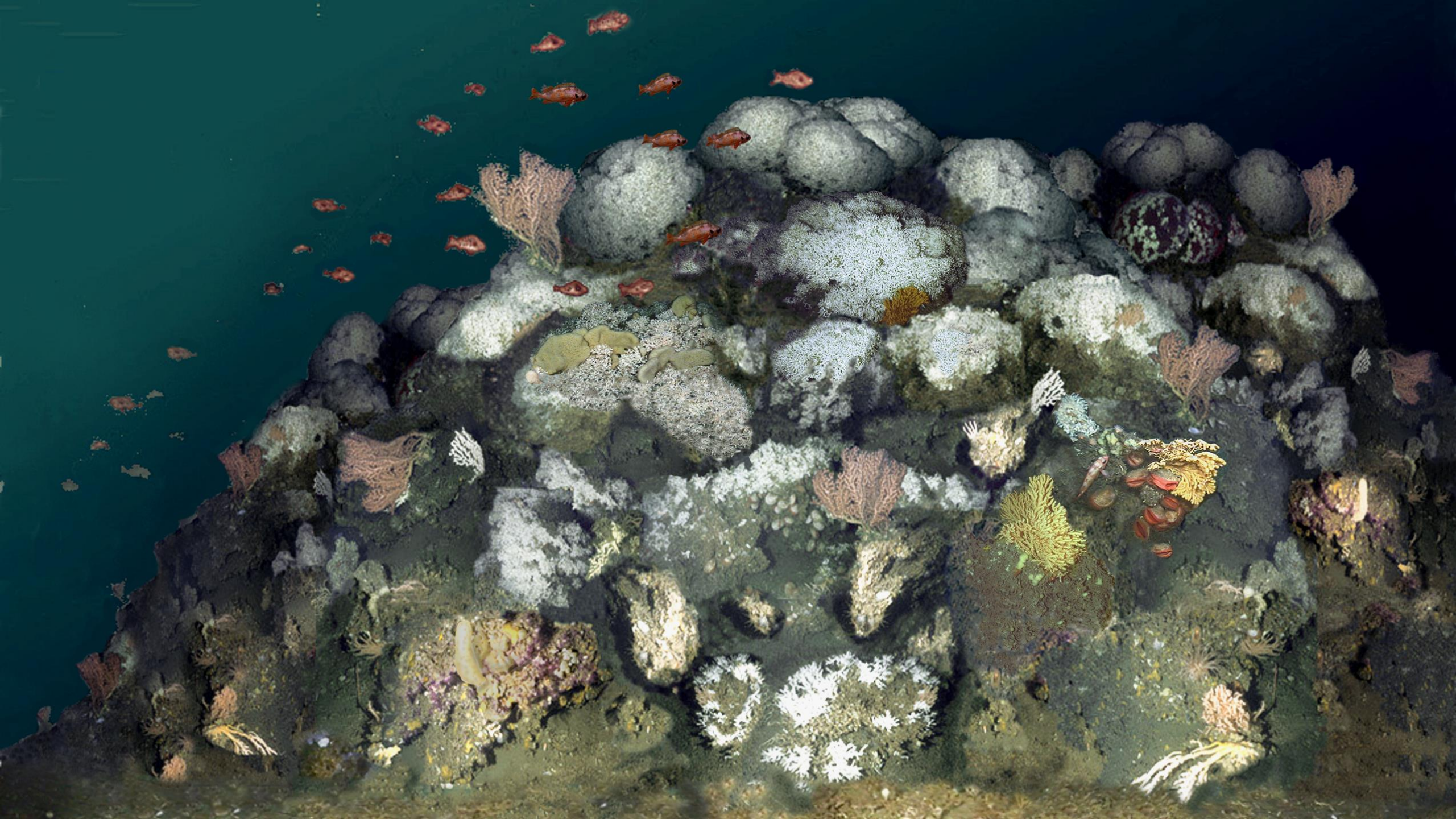


Criteria:
Bathymetry
Oceanography
Productivity
Trophic linkages

18 Arctic
**Large Marine
Ecosystems -
LMEs**







The 2nd Arctic EA Conference

First Arctic EA conference in Fairbanks, Alaska,
August 2016

Tradition? – Regular reporting on status of EA
implementation

EA-EG – Joint group with PAME, AMAP, CAFF and
SDWG of the Arctic Council

Six EA workshops 2011-2018

7th EA workshop planned for summer 2020, on
the topic of values and valuation – up North?

2nd EA Conference

- Five sessions, plus Opening and Conclusion
 - 1 – Integrated Ecosystem Assessment
 - Examples, and supporting science
 - 2 – MPAs and other special areas
 - 3 – ‘Voices from the North – a conversation about People, Nature, and Sustainability’
 - 4 – National EA implementation
 - 5 – Central Arctic Ocean

Goals

- Increased **awareness** of the scale issue
- Start of a **conversation** on EA and sustainability that we can continue
- Recommendations and suggestions for **future work** and next steps
- Conference report
 - Summaries of all presentations
 - Reports from discussions and break-out groups
 - Conference summary and conclusions
- Presentations will be posted (as pdf files)
- 2021 Report on status of EA implementation for the marine Arctic

The Geiranger Declaration on Responsible Stewardship



"The sea is his, for he made it, for his hands formed the dry land" (Psalm 95:5)

Help us to save the ocean, Lord.

*O God, how beautiful the light over the water,
the soft line of the shore,*

the high clear heavens.

Our heart rejoices!

And yet, beneath the surface,

life is suffering from human destructiveness.

Our heart is crying; help us to save the ocean,

Lord, the mighty waters of the earth.

Amen

Planning group

- Libby Logerwell
- Lis Jørgensen
- Hein Rune Skjoldal
- Rebecca Shuford (USA)
- Leah Brown (Canada)
- Hermanni Kaartokallio (Finland)
- Tom Christensen (Denmark)
- Boris Solovyev (Russia)
- Gunn-Britt Retter (Sámi Council)
- Carolina Behe (ICC)
- Kári Fannar Lárusson (CAFF)
- Rolf Rødven/Jan Réne Larsen (AMAP)
- Soffia Gudmundsdottir (PAME)
- Mette Skern Mauritzen (ICES)
- Fugio Ohnishi (PICES)
- Martin Sommerkorn (WWF)