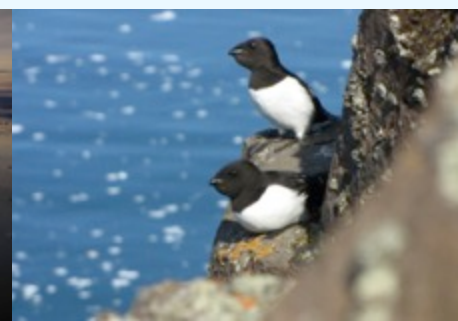
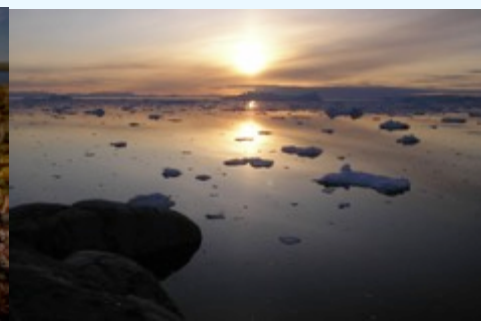
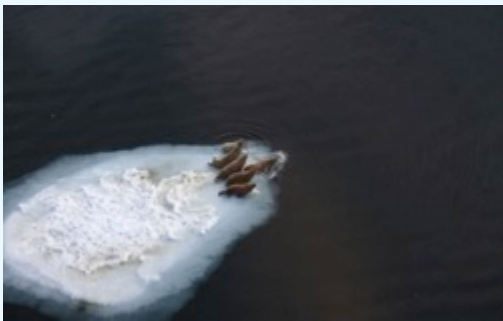


Identifying important/ sensitive areas

- examples on ongoing scientific work; Greenland

The Arctic Biodiversity Congress

December 2-4, 2014 – Trondheim, Norway

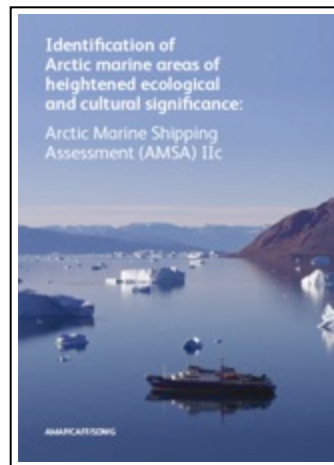


Comparison of selected criteria to identify import. biodiv. / ecosyst. areas

CBD- EBSA	IUCN – MPA	Ramsar	IUCN KBA	IMO (PSSA)
<i>Uniqueness or rarity</i> <ul style="list-style-type: none"> • Species, populations, communities • Habitats or ecosystems • Geomorphological or oceanographic features 	Rare biogeographic qualities Unique or unusual geological features Rare or unique habitat	Wetland containing unique example of a wetland type found within the appropriate biogeographic .	Irreplaceability	Uniqueness or rarity
<i>Importance for threatened, endangered or declining species and/or habitats</i>	Presence of habitat for rare or endangered species Rare or unique habitat for any species	wetland supporting endangered, or critically endangered species or threatened ecological communities.	Occurrence of a significant (exceeding a threshold) population of a globally threatened species	Critical habitat for rare or endangered marine species
<i>Biological diversity</i> · Ecosystems, habitats, communities · Species · Genetic diversity	The variety of habitats Degree of genetic diversity within species	wetland important for maintaining the biological diversity of a particular biogeographic region	Sites contributing significantly to the global persistence of biodiversity.	Diversity
<i>Biological productivity</i>	Ecological processes or life-support systems	Wetland supporting a significant proportion of indigenous fish or host an important source of food for fishes, spawning ground, nursery and/or migration path		Productivity
<i>Special importance for life history stages of species</i> <ul style="list-style-type: none"> • Breeding grounds, spawning areas, nursery areas, juvenile habitat, etc. • Habitats of migratory species 	Presence of nursery or juvenile areas Presence of feeding, breeding or rest areas	Wetland supporting plant and/or animal species at a critical stage in their life cycles Wetland supporting 20,000 or more waterbirds. Wetland regularly supporting 1% of the individuals in a population of one species or subspecies of waterbird or other wetland species.	Site that holds a significant proportion of a species' global population at any stage of the species' lifecycle.	Spawning, breeding and nursery grounds Migratory routes Critical habitat for the survival, function, or recovery of fish stocks
<i>Naturalness</i>	Naturalness			Naturalness
<i>Vulnerability, fragility, sensitivity, or slow recovery</i> <ul style="list-style-type: none"> • Sensitive habitats, biotopes or species that are functionally fragile or with slow recovery 				Fragility
	Representative of a biogeographic	Site that contains representative wetland type within the		Representative: Bio-geographic importance, representative of a

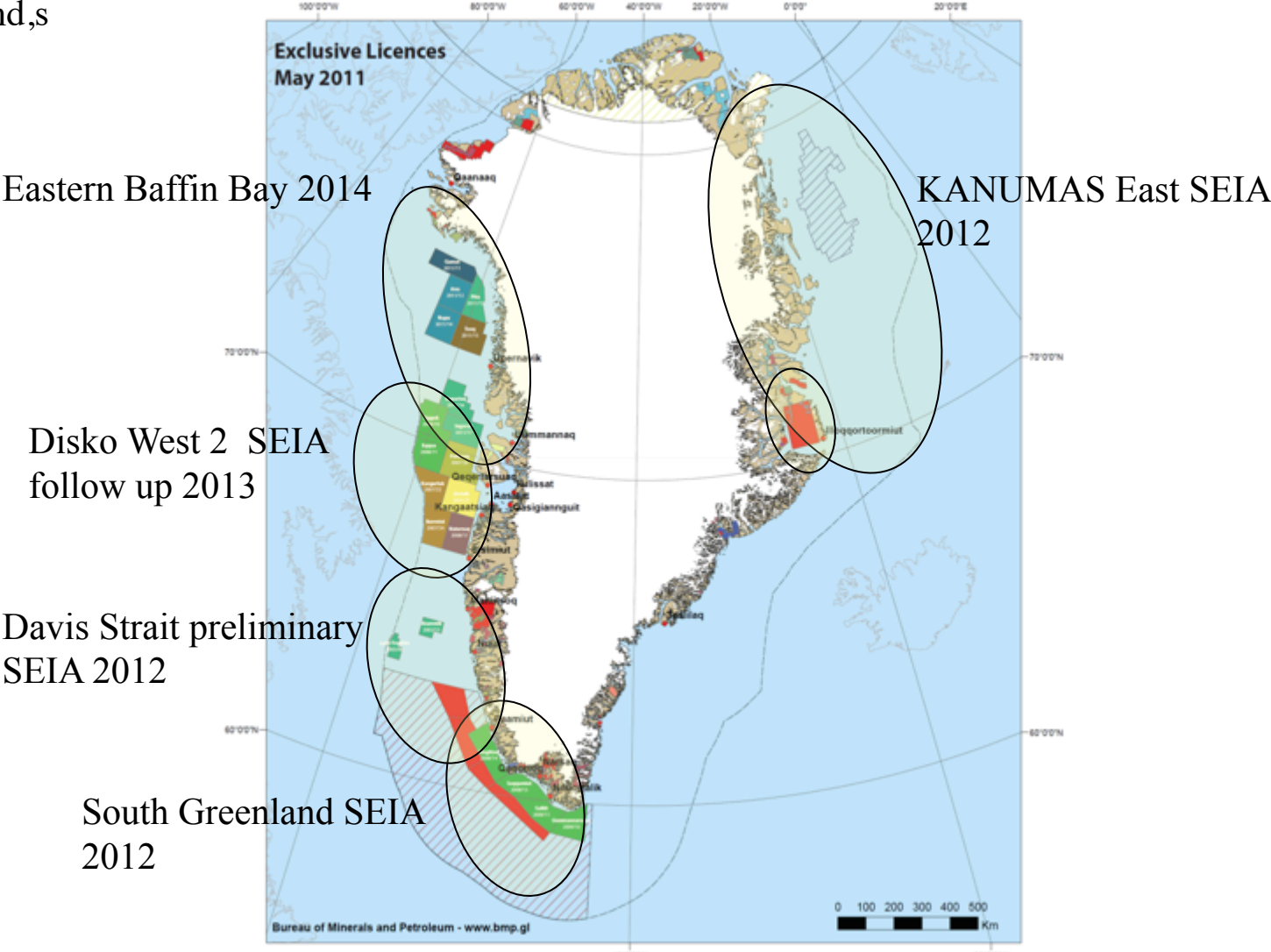
Scientific input to four processes related to ID of EBSA/PSSA etc.

- IUCN; Identification of EBSA's in The Arctic (2010 – Based on CBD's EBSA criteria)
- AMSA IIC (2013 – Based on IMO's PSSA Criteria)
- ID of ecologically sensitive marine areas around Greenland (Based on IMO's PSSA criteria)
- ID of Biodiversity Hotspots in Greenland, including review of EBSA's. Expected published spring 2015 (Based on national priorities, Ramsar Criteria, IUCN KBA criteria & CBD's EBSA criteria)

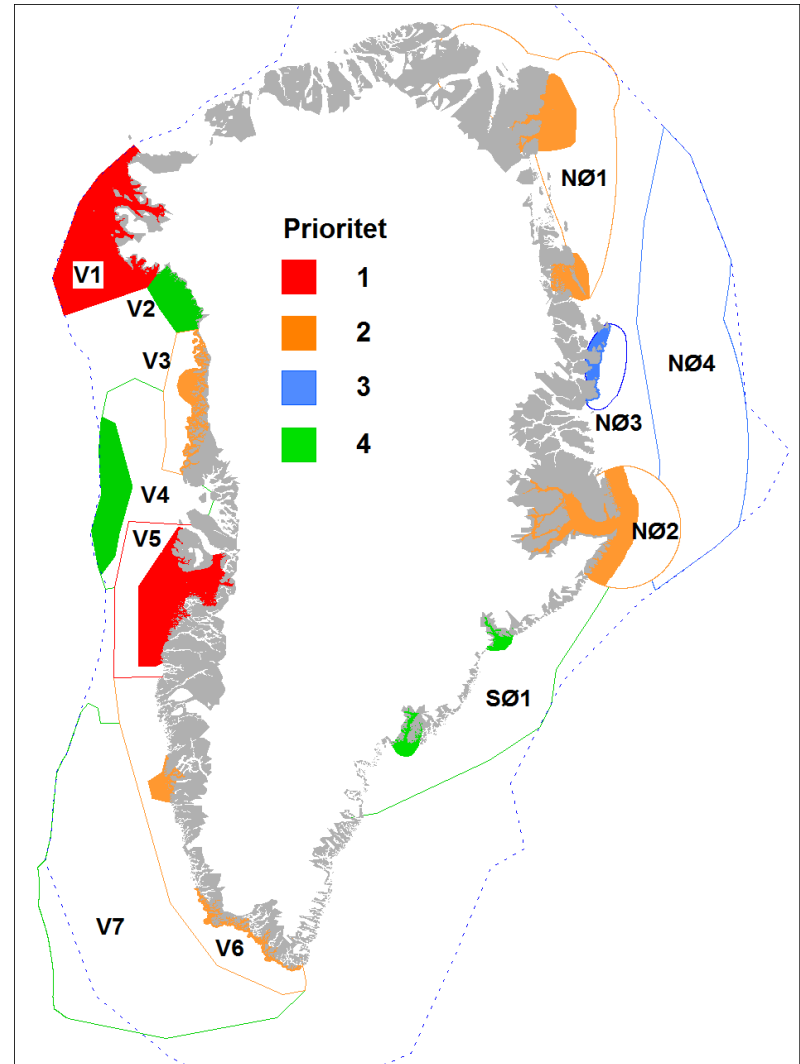


Datasource used as input to all four scientific processes

“Strategic Environmental Impact Assessments (SEIA) Studies” includes overviews of key habitats, migration routes, and the population size and ecology of sensitive species and resources in Greenland,s



Using the PSSA criteria for Greenland/ Denmark



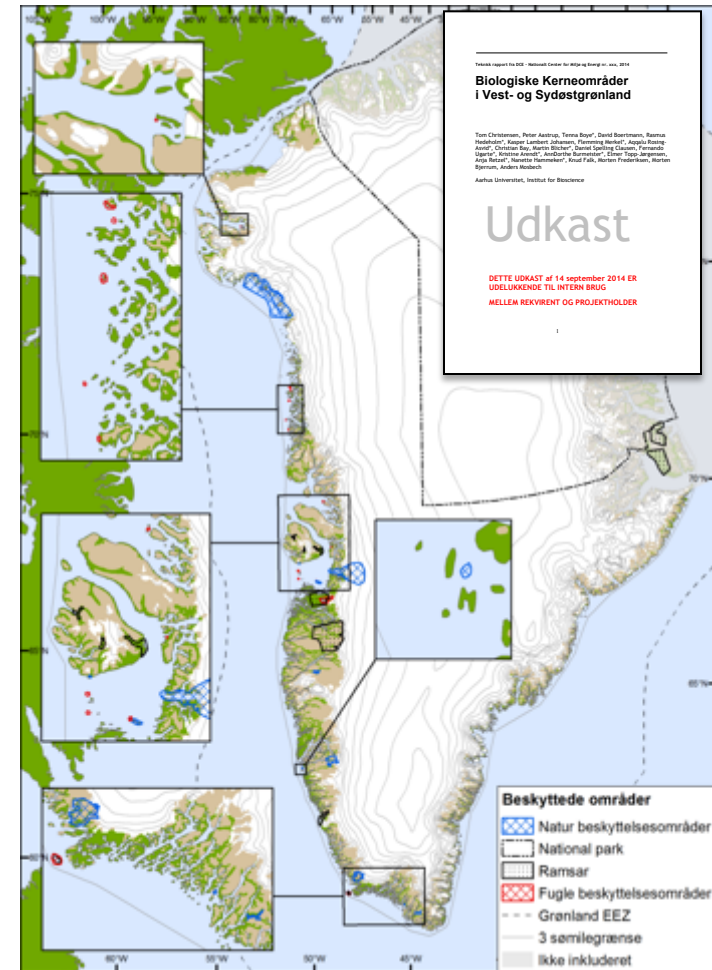
Evaluation of PSSA Criteria for areas with priority 1, 2, 3 og 4

Area – number and name	PSSA Criteria											(Super) EBSA	PRIORITY	
	Unique/ rarity	Critical habitat	Dependency	Representativeness	Diversity	Produktivitet	Spawning/ Breeding grounds	Naturalness	Integrity	Frigility	Biogeo-graphic importance			
XXX = High extend XX = medium extend X = some extend														
V1: North Water Polynia	XXX	XXX	XXX	XXX	XX	XXX	XXX	XXX	XXX	XXX	XXX	S	1	
V2: Melville Bay		XX	XX				X	XXX				E	3	
V3: Northwest Greenland Shelf	X	XXX	XXX	XX	XX	X	XX	XX	X	XX	XX	E	2	
V4: Baffin Bay / Uummaannaq		XXX	XXX					XX					4	
V5: Disko Bay/ St. Hellefiskebanke	XX	XXX	XXX	XX	XXX	XXX	XX	X	XX	X	XX	S	1	
V6: Southwest Greenland shelf	X	XXX	XX	XX	XXX	XXX	XX	X	XX	X	X	E	2	
V7: Labrador sea and drift ice		XX	XX				XX	X				E	4	
SØ1: Southeast Greenland/ DK str.		X	X				X	X				(E)	4	
NØ1: Northeast Water polynia	XX	XX	XX	XX	X	XX	XX	XXX	XXX	X	XX	E	2	
NØ2: Scoresby Sund	XX	XXX	XX	XX	XX	XX	XXX	XXX	XX	X	X	E	2	
NØ3: Sirius Water/ Young Sund	X	X	X	X	XX	X	XX	XXX	X	XX		E	3	
NØ4: Southwestern Greenland Sea		XX	XXX		X	XX	XXX	XXX		XX		E	3	

Under preparation: ID of *Important Biological Areas* in Greenland

Desk exercise using same data. Will:

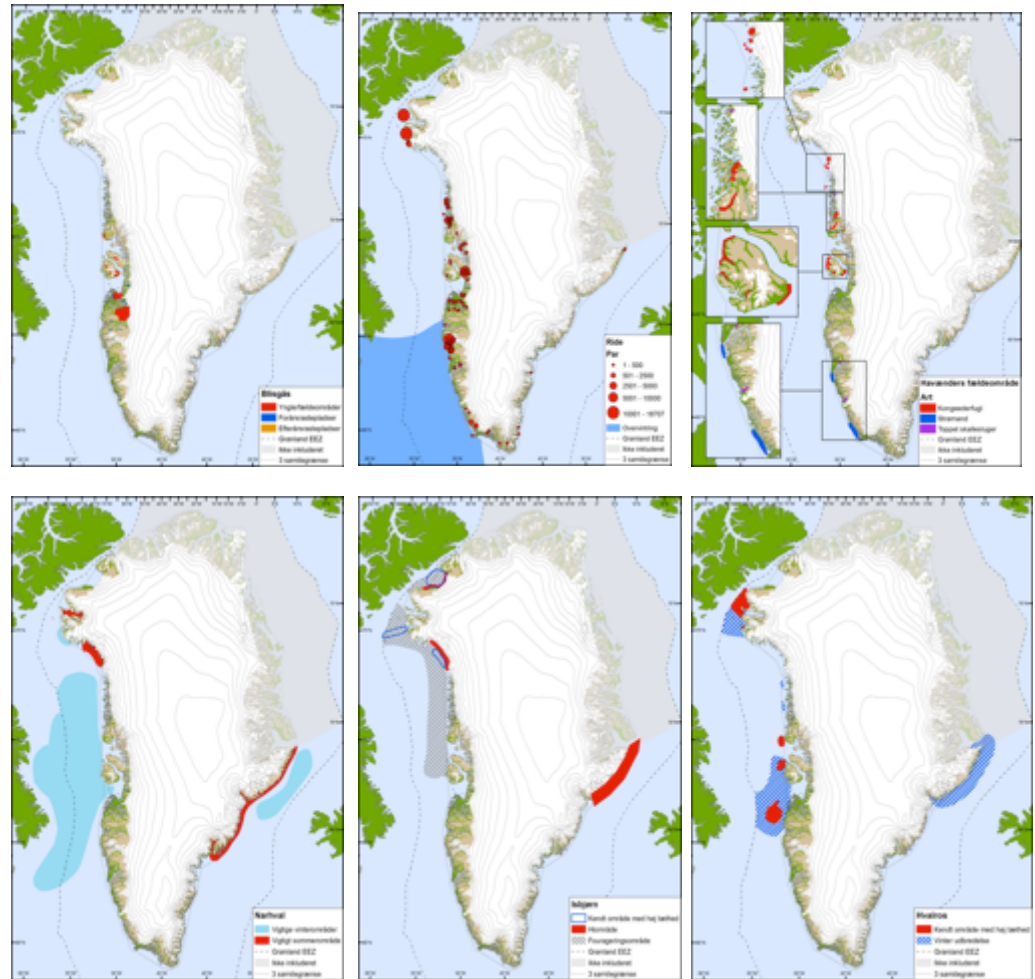
- Include an overview of existing protected areas and related regulations.
- Use the following criteria:
National Criteria, EBSA, Ramsar, IUCN – KBA
- Include description of "Important" species, nature types and ecosystems
- Include identification of important areas for these.
- Use of a transparent method to identify important Biological Areas.



Approximately 65 animal species

Including:

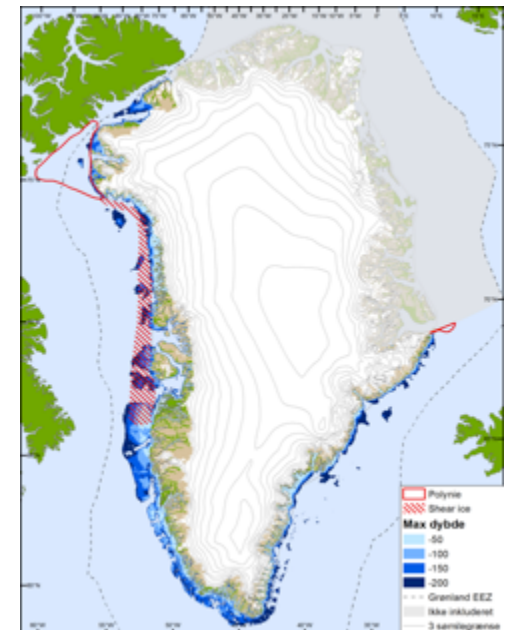
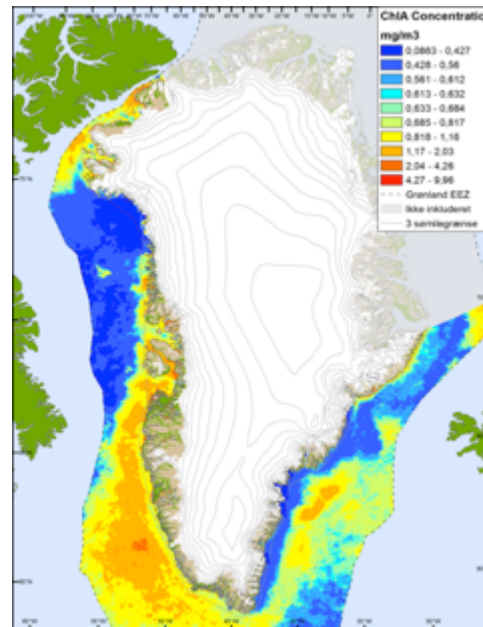
- Species endemic to Greenland (or the region)
- Species where Greenland host big proportion of population. Parts of/ whole year
- Redlisted species
- Vulnerable species
- Species that are important for people



App. 15 species groups/ Ecosystemtypes/ Nature types

Including:

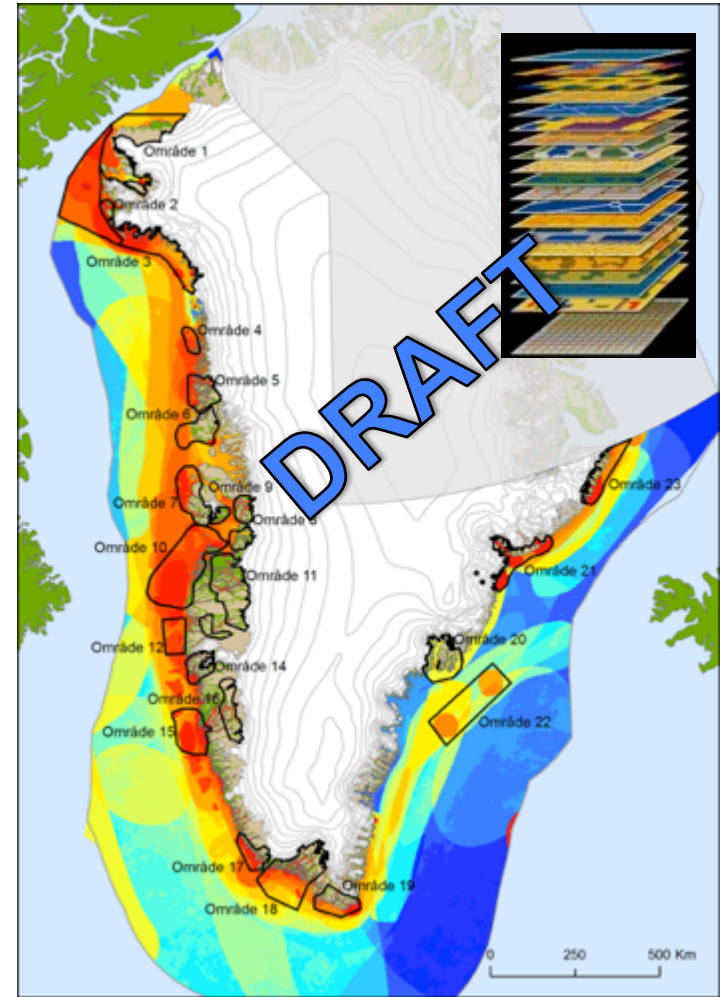
- Areas with high biological production
- Polynias
- Forests
- Areas with rare biogeographic qualities
- Areas with high concentrations of individuals/ species



Important Biological Areas

The identification of important biological areas builds on two parallel processes:

- Small expert workshops (Expert judgement)
- Use of GIS overlay analysis
 - 107 biological themes/ layers
 - Each theme/ layer are ranked according to the importance (based on criteria and their value for the populations/ ecosystem - inspired by Halpern et al. 2008)
 - The overlay analysis shows grids in 2,5 * 2,5 km squares with biggest value.



A wide-angle photograph of a desolate, icy landscape. The foreground and middle ground are filled with a dense field of broken ice floes and snow, interspersed with small patches of brownish vegetation. In the background, a massive, jagged ice formation, possibly a glacier or ice shelf, rises against a clear, pale blue sky. The overall scene conveys a sense of vastness and cold.

Thank you

How to identify important areas for ecosystems and/or biodiversity?

How to ensure a circumpolar adequate representation of important ecosystems and species within protected areas?

How to safeguard important and sensitive areas?

How to best safeguard Arctic biodiversity under changing environmental conditions?

How to include traditional knowledge and community values into protected areas planning and management?

Suggestions related to monitoring of protected areas in the Arctic (e.g. to be implemented through CBMP).

