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# Science-based framework for future fisheries management in the Central Arctic Ocean

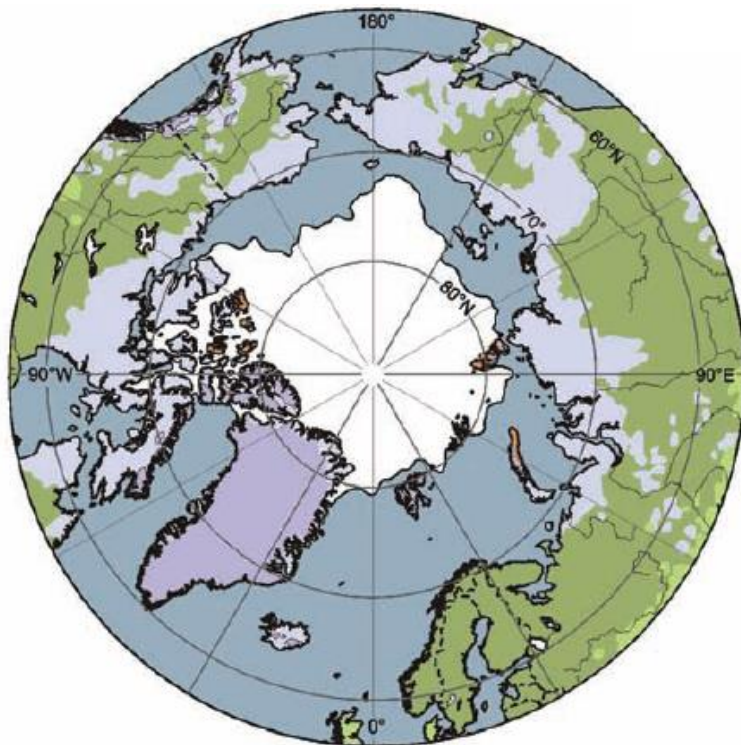
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Ministry for Foreign Affairs, Reykjavik, Iceland

*International Conference on “New Knowledge and Changing Circumstances in the Law of the Sea”, Reykjavík, 28-30 June 2018*

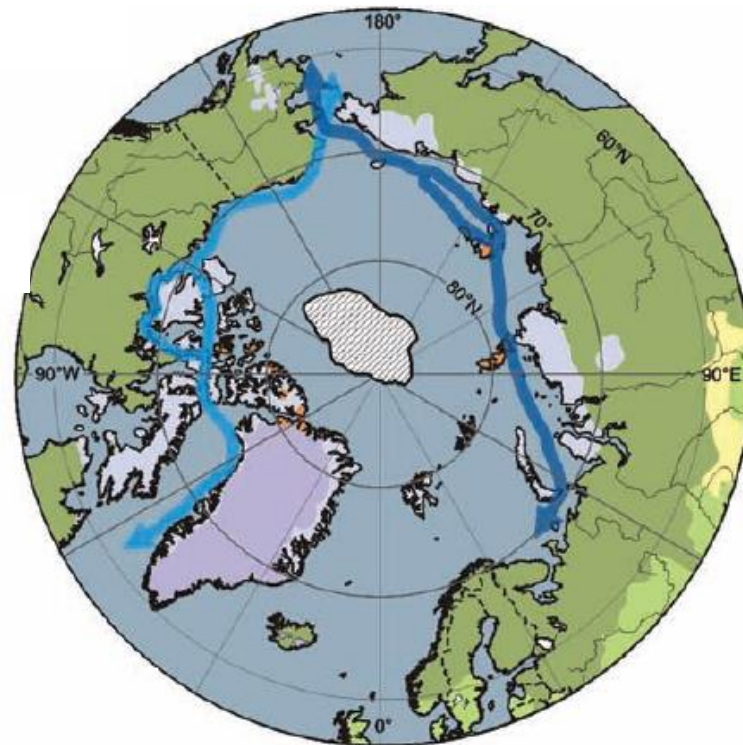
# Arctic Ocean ice coverage, sailing routes and future fishing grounds ?



Now



2080



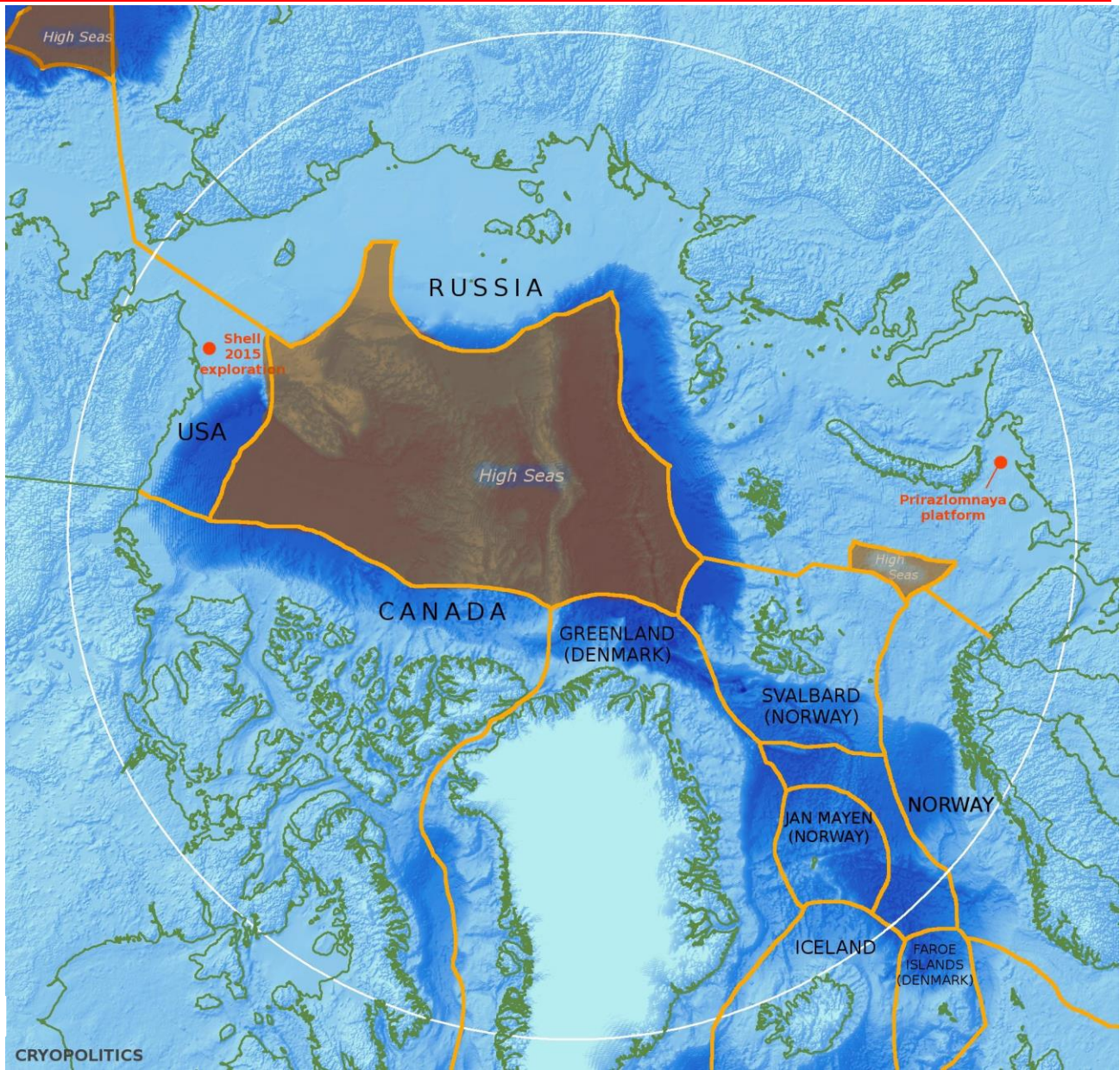
- No commercial fishing now in this huge ocean area beyond the EEZs
- Not immediate fishing possibilities in near future
- Can open quickly when ice retreats as predicted



# Central Arctic Ocean



Agreement area  
under consideration  
by the ten parties  
2015-2017



# The Arctic Five Declaration July 2015

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- The declaration was in line with Iceland's general approach to sustainable management of living resources of the sea
- However, non-inclusive management measures where not all stakeholders are included, is not in line with international regional management approach
- And who is coastal state in this context ?
- Iceland certainly an Arctic state with „real“ coastal interests, thus questioned the set-up

# Five+Five: December 2015-November 2017



- Iceland welcomed here the inclusiveness of all relevant parties
- Generally, Iceland could agree on most elements of the declaration of five
- Iceland preferred formal agreement if the necessary „ingredients“ were in place
- Important considerations:
  - The regime needs be in accordance and in full compliance with the 1982 UNCLOS and the 1995 Fish Stock Agreement
  - The agreement or declaration needs fully to respect the NEAFC competence in the portion of the High Seas area
  - Equal standing of all parties to the agreement, one „division“ – a matter of principle

# Five+Five: December 2015-November 2017



- Important considerations:
  - Not an agreement of *de facto* „moratorium“ but rather an interim step towards a sustainable harvest regime
    - with „trigger“ for fishing activities when and if status of stocks allows and
    - Triggering negotiations of one or more RFMOs when relevant
  - If diverting views on initiating such process, all parties are free to take the initiative themselves
  
  - Platform for scientific cooperation and monitoring, avoid duplication of efforts
  - Exploratory fishing under agreed rules and principles



- FiSCAO (Fish Stock in the Central Arctic Ocean) – five international meetings of experts
  - 1) Anchorage, USA, June 2011: „What is the status of science?“
  - 2) Tromsö, Norway, October 2013
  - 3) Seattle, USA, April 2015
  - 4) Tromsö, Norway, September 2016
  - 5) Ottawa, Canada, October 2017





# Experts Anchorage, 2011

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- “Within the Arctic, current information on distribution and abundance of concentrations of these species, uncertainty in the ecosystem effects of fishing, and the technical and logistical challenges of conducting fishing operations in remote regions all suggest that commercial fisheries are not likely to emerge in the short term.”
- „....., there is no urgency, ... there is limited scientific knowledge of the high seas, we need to establish baseline data“.

## - Tromsö, 2013

- “.. no near term prospects for commercial concentrations of fish but there remained a need to know more about fish stocks with the potential to be harvested in the High Seas”.
- “..... demersal fish or shellfish are not expected to expand into the deep basin of the Arctic Ocean.”



# Experts Seattle, 2015




- Inventory of Arctic Research and Monitoring Programs
  - Many sources of info. and of diverse origin – much work to do
  - Geographic variation
  - Physical disciplines (ocean and atmosphere) more info. than biological/economic/human disciplines
  - Knowledge increase rapidly
- Report on the Status and Gaps of Arctic Research and Monitoring
  - Very limited observations on habitats of the CAO
  - No surveys capable of quantifying biomass abundance of likely target species beyond the continental shelf areas
  - Limited info. on the role of fish in the CAO ecosystem
  - Baseline data needed for modeling and for future monitoring
- Framework for a Joint Program of Research and Monitoring (JPRM)
  - Structure and function of JPRM ?
  - Are there harvestable fish resources in the CAO ?
  - Can target species and others be sustainably harvested and how does it influence the resources at the continental shelves ?
  - Changes the next 20-30 years – fish stocks, other resources, ecosystem ?

# Experts Seattle, 2015




**HIGH SEAS FISH (12)**

*Liparis fabricii*



*Cottunculus microps*




*Reinhardtius hippoglossoides*

**SNAILFISHES (2)**


**SCULPINS (2)**

*Lycodes polaris*



**EELPOUTS (5)**

*Boreogadus*  
*gairdneri*



**FLATFISH (1)**

**CODS (2)**

# Experts Tromsø, 2016



- Completed the synthesis of knowledge:
  - 12 species of fish known from the High Seas areas while more than 300 fish species known in waters nearby the High Seas
  - Three potential commercial species: Greenland halibut + 2 cod-like species
  - Limited sampling: Number of High Seas fish species is likely to increase with more sampling
  - “because of the low productivity associated with a seasonal sea ice cover and the associated strong vertical density stratification, fish densities of commercial interest are not likely to occur in the High Seas in the near future. “
  - “baseline information, ecosystem understanding, and monitoring to detect future changes are important issues for the High Seas region”
- Developed a draft Joint Scientific Research and Monitoring Plan
- Provided a Framework for the Implementation Plan

# Experts Ottawa, 2017

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- Designed a 1-3 year long mapping program
- Designed a monitoring program
- Identified human, financial, vessel/equipment resources needed for mapping and monitoring
- Developed data collection, sharing, and hosting protocols that outline the details of what and how data shall be collected, shared, and hosted for consideration by the Parties
- CAO states, ICES, PICES, PAME, CAFF

# The Agreement - Article 4: Joint Program of Scientific Research and Monitoring (JPRM)



1. The Parties shall facilitate cooperation in scientific activities with the goal of increasing knowledge of the living marine resources ..... and the ecosystems .....
2. The Parties agree to establish, ....., a Joint Program of Scientific Research and Monitoring (JPRM) with the aim of improving their understanding of the ecosystems ..... and, ....., determining whether fish stocks might exist in the Agreement Area now or in the future that could be harvested on a sustainable basis .....
3. The Parties shall guide the development, coordination and implementation of the JPRM.
4. The Parties shall ensure that the JPRM takes into account the work of relevant scientific and technical organizations, bodies and programs, as well as indigenous and local knowledge.
5. As part of the JPRM, the Parties shall adopt, ....., a data sharing protocol and shall share relevant data, ....., in accordance with that protocol.
6. The Parties shall hold joint scientific meetings, ....., at least every two years and at least two months in advance of the meetings of the Parties ....., to review the best available scientific information, and to provide timely scientific advice to meetings of the Parties. ....



# The Agreement: Article 5. Review and Further Implementation



1. The Parties shall meet every two years or more frequently if they so decide. During their meetings, the Parties shall, *inter alia*:

(a) review implementation of this Agreement and, when appropriate, consider any issues relating to the duration of this Agreement in accordance with Article 13, paragraph 2;

(b) review all available scientific information developed through the Joint Program of Scientific Research and Monitoring, from the national scientific programs, and from any other relevant sources, including indigenous and local knowledge;

(c) on the basis of the scientific information derived from the JPRM, from the national scientific programs, and from other relevant sources, and taking into account relevant fisheries management and ecosystem considerations, ..... whether the distribution, migration and abundance of fish in the Agreement Area would support a sustainable commercial fishery and, on that basis, determine:

(i) whether to commence negotiations to establish one or more additional RFMO/A ..... and

(ii) .....

(d) establish, within three years of the entry into force of this Agreement, conservation and management measures for exploratory fishing in the Agreement area. ....

# In Essence



- The Agreement is a platform for coordinated conduct of scientific research and for generating scientific advice
- It manages exploratory fishing
- It is a guidance for collecting, handling and sharing scientific data
- It provides the road towards future organisational arrangements when needed and allows for interim management measures until such framework is in place
  
- In essence it can be taken as an RFMA – arrangement, most elements of relevance are already incorporated in the agreement with rights and obligations of parties in accordance with the 1995 Fish Stocks Agreement

# Thank you !

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Kolbeinsey – northernmost  
point of Iceland