

## ICES proposal to be presented at the Fifth meeting of the Scientific Fisheries Experts on Fish Stocks in the Central Arctic Ocean

*Agreed by Council at its October 2017 meeting.*

### **1 ICES and the Arctic**

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All Coastal States to the Arctic are members of ICES and in response to their, as well as other Member Countries', interest ICES has adopted a strategy to work in the Arctic. The strategy is part of ICES Strategic Plan for the period 2014 to 2018, and includes commitment to further develop the science, advisory and data work on the Arctic.

ICES is already active on Arctic issues both in terms of coordinating and developing science and monitoring, and in providing advice on management of fisheries in the Arctic. In agreement with the Strategic Plan, ICES has obtained observer status in the Arctic Council, and is seeking input from strategic cooperation partners, such as the Arctic Council Working Groups on how to address information gaps and needs in a deliberate, well-planned manner to avoid duplication and add value to on-going processes. Specifically for the Central Arctic Ocean ICES is working with PICES and the Arctic Council to prepare an Integrated Ecosystem Assessment outline, including effects and vulnerability in relation to climate change, and human activities (potential future fisheries, and Arctic shipping).

### **2 Scientific Experts on Fish Stocks in the Central Arctic Ocean.**

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Future international management of potential fisheries in the central Arctic Ocean (CAO) has been addressed at a series of meetings of governments beginning with an initial meeting held in June 2010. Of particular relevance to these meetings has been the interest by the governments in the development of a joint program of scientific research and monitoring to inform future potential fisheries management in the CAO. This led to the first meeting of the Scientific Fisheries Experts on Fish Stocks in the Central Arctic Ocean held in 2011. The general conclusion of that meeting was that there was no urgency, but, given the limited scientific knowledge of the CAO, there was a need to establish baseline data. Additional scientific meetings were held in 2013, 2015, and 2016.

The five Arctic coastal states adopted the 2015 Oslo Declaration Concerning the Prevention of Unregulated High Seas Fishing in the Central Arctic Ocean. The declaration envisions a broader process and the coastal states met in 2015 with China, the European Union, Iceland, Japan, and the Republic of Korea. The ten parties agreed to develop a Joint Program of Research and Monitoring and the 4<sup>th</sup> Meeting of Scientific Experts on Fish Stocks in the Central Arctic Ocean was held in 2016 to develop the program with the participation of the ten parties and

observers from ICES, PICES, Arctic Council and the Pacific Arctic Group. The main focus of the 5<sup>th</sup> meeting is to elaborate the implementation plan of a joint program of scientific research and monitoring of the Central Arctic Ocean.

### **3 Fifth meeting of the Scientific Fisheries Experts on Fish Stocks in the Central Arctic Ocean**

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#### **3.1 Terms of Reference for the 5th Meeting of Scientific Experts on Fish Stocks in the Central Arctic Ocean**

1. Design a 1-3 year long mapping program:
  - 1.1. By defining the spatial and temporal scope for sampling
  - 1.2. By defining methods and the scientific approach (type of sampling and scales) for new CAO research cruises to fill gaps
  - 1.3. Such that the Program incorporates:
    - 1.3.1. Existing surveys by the 10 governments (use, to the extent possible, existing research and monitoring programs),
    - 1.3.2. Additional groups with existing research/monitoring programs, and
    - 1.3.3. Relevant indigenous and local knowledge
2. Design a monitoring program.
  - 2.1. By identifying and defining potential monitoring areas and indicators.
  - 2.2. Such that the Monitoring programs makes use of:
    - 2.2.1. Existing monitoring programs to the extent possible, including government, community-based and academic programs, and
    - 2.2.2. Relevant indigenous and local knowledge
3. Identify human, financial, vessel/equipment resources needed for mapping and monitoring
4. Develop 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

#### **3.2 ICES Ongoing work**

The majority of the tasks associated with ToRs #1 and #2 are related with work in the Ecosystem Observation Steering Group. The Steering Group is responsible for guiding and supporting Expert Groups that are meeting immediate data demands and contributing to the running and further development of effectively coordinated, integrated, quality assured and cost-effective monitoring in the ICES region and beyond.

This work includes;

- Evaluate and optimise survey design to meet the needs of member countries and support advisory requests
- Design, plan and co-ordinate surveys (egg and larval, acoustic and trawl)

- Identify and evaluate new technologies for observation and monitoring
- Advise on the design, deployment and efficiency of sampling methods and gears and the use of resulting data for assessment and advice
- Aging and estimate life history parameters of sampled fauna
- Develop monitoring to meet emerging data, science and advisory needs, with a focus on integrated ecosystem assessment and ecosystem-based management

The tasks under ToR 4 are related to the work of the Data and Information Group, an operational group under the Science Committee, as well as the work of the ICES Data Centre

### **3.3 Proposal**

ICES offers its support to the work proposed in the ToRs, actively through coordination of input from experts in:

- statistical survey design (Refer to ToR 1.1, 1.2 & ToR 2)
- gear technologies (Refer to ToR 1.1, 1.2 & ToR 2)
- assessment methods (Refer to ToR 1.1, 1.2 & ToR 2)
- harmonized data streams (ToR 4)
- local knowledge

ICES is also prepared to assist with the coordination and facilitation of the proposed monitoring program.

An open invitation for discussions related to data collection and management issues with ICES Data Centre.

ICES aspires to cooperate with PICES and other relevant organizations identified by the 5+5 countries on Arctic issues.

Some of these actions could be achieved through workshops or (an) expert group.

### **3.4 Resources needed**

- nomination of experts
- data management