



# Implications of the *Convention on the Conservation and Management of Pollock Resources in the Central Bering Sea* for the management of fisheries in the Central Arctic Ocean

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## ABSTRACT

With the prospect of fisheries developing in the Central Arctic Ocean as climate changes and summer sea ice retreats, an effective international agreement is under diplomatic discussion to foster a successful fisheries management regime. This paper explores the implications of the Central Bering Sea experience for a fisheries agreement covering the Central Arctic Ocean. The 1980s and early 1990s witnessed the depletion of pollock resources from overfishing in the Central Bering Sea, a high seas area of the sub-Arctic. With joint efforts from coastal states and distant-water fishing states, the *Convention on the Conservation and Management of Pollock Resources in the Central Bering Sea* was signed, facilitating the involvement of both groups in the establishment of a management regime and the implementation of management measures. Specifically, the paper considers the role of the precautionary approach, cooperation between coastal states and distant-water fishing states, timely establishment of a Regional Fisheries Management Organization, dynamic fisheries management, and scientific research and investigation. The analysis indicates ways to address challenges and potentially conflicting interests in the Central Arctic Ocean fisheries management.

## 1. Introduction

Climate change has brought about widespread environmental changes in the Arctic. As one example, as much as 40% of the high seas region of the Central Arctic Ocean (CAO; Fig. 1) was ice free in September 2012, a peak recorded so far by the U.S. *National Snow and Ice Data Center* [1]. There are predictions that the Arctic will be free of summer sea ice by 2050 [2]. The loss of sea ice removes a physical barrier to fishing vessels, creating the possibility of fishing activity in the region [3–5], where none has occurred to date. Although there is no imminent prospect of commercial fisheries in the CAO [6,7], establishing a fisheries management regime is deemed necessary to avoid the tragedy of the commons. The five coastal states of Arctic Ocean (Canada, Denmark/Greenland, Norway, the Russian Federation, and the USA; hereinafter referred to as the “A5”) have hosted diplomatic Arctic fisheries meetings by turns since 2010. At the meeting held in July 2015 in Oslo, the A5 released *The Declaration Concerning Prevention of Unregulated High Seas Fishing in the CAO (Oslo Declaration)*. This interim measure has drawn attention from distant-water fishing states as well as near-Arctic states, who keep a close eye on the A5's activities and try to

figure out the intention behind the declaration [8].

This paper aims to explore fisheries management in the high seas of the Central Arctic Ocean. For high seas fisheries management, addressing waters beyond any state's 200 nautical mile exclusive economic zone (EEZ), there are already various international legal instruments such as *United Nations Convention on the Law of the Sea (UNCLOS)* and *Agreement for the Implementation of the Provisions of UNCLOS of 10 December 1982 Relating to the Conservation and Management of Straddling Fish Stocks and Highly Migratory Fish Stocks (FSA)*. In addition, specific high seas regions have established Regional Fisheries Management Organizations (RFMOs) to carry out cooperative management activities. However, there are indications that the procedures involving the development of a CAO fisheries management regime have followed a different path from those laid out in existing international instruments. The *Oslo Declaration* was agreed upon by the A5 without the presence of other stakeholders at the negotiating table. While these interim measures are not binding on either coastal states or any other state, they have established a firm starting point for further negotiations involving other states.

This paper considers the earlier experience of developing a high-

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Fig. 1. The High Seas Area of the Central Arctic Ocean.

seas fisheries agreement for walleye pollock (*Gadus chalcogramma*) in the Central Bering Sea (CBS, known as "Donut Hole"; Fig. 2) and its implications for the current development of an international CAO fisheries agreement. The comparison points to the differences in perspectives and interests between coastal states and distant-water fishing states as well as potential steps to address those differences and achieve successful CAO fisheries management.

## 2. Fisheries and fisheries management in the CAO

The CAO covers 2.8 million square kilometers, almost 19% of Arctic Ocean and approximately the size of the Mediterranean Sea. Surrounded by the EEZs of the A5, the CAO is still ice-covered most of the year, although open water is increasing common in the region in summer, especially on the Pacific side of the Arctic. With severe environmental conditions and limited access, there are no commercial fisheries so far in the CAO. There is limited understanding of the marine living resources of the CAO [3], and no exact prediction of the prospect for commercially viable and attractive fish stocks there. Thus, creating a fisheries agreement for the region is a matter of precaution rather than addressing an existing problem.

Currently there is no competent RFMO for the CAO. The *Northeast Atlantic Fisheries Commission* does cover a sector of the Arctic north of the Atlantic Ocean, but this is only 8% of CAO and not the region where sea ice is retreating most quickly. Other fisheries organizations and agreements that address some Arctic and sub-Arctic matters are area- and species-specific, including the *Northwest Atlantic Fisheries Organization*, the *International Council for the Exploration of the Sea*, the *North Atlantic Salmon Conservation Organization*, the *North Pacific Marine Science Organization*, and the *North Pacific Anadromous Fish Commission* [9,10].

There are indications from the A5 Arctic fisheries meetings that the A5 have seen no immediate need to establish a new RFMO for the CAO, on the grounds that there are currently no commercial fisheries in the CAO and no likelihood that fisheries will develop in the near future [11–13]. However, the A5 seem to be taking up the missions that an RFMO should have for the CAO. At the A5 fisheries meeting in Nuuk in 2014, the A5 discussed the development of interim measures to prevent unregulated fishing in CAO, followed up by their declaration one year

later in Oslo. Since the Oslo meeting, the A5 have invited delegations from China, the European Union, Iceland, Japan, and the Republic of Korea to join the Arctic fisheries meetings, where the A5 are trying to get wider acceptance of their CAO interim measures and take the next steps to develop adequate science on which to base decisions, including the creation of a management regime such as an RFMO if and when fisheries are deemed sustainable. So far, these "A5 + 5" meetings have not produced an agreement. One likely reason is the potential divergence in CAO fisheries rights and interests between the A5 and the +5, two groups distinguished by whether they have EEZs bordering the CAO.

In 2015 in Oslo, the A5 reached internal agreement unanimously on a fishing moratorium as an interim measure to prevent unregulated fishing in the CAO, but the A5's Arctic EEZ fisheries policies vary. The USA has been the most active advocate for a CAO fisheries agreement, a policy that aligns with its own moratorium on fishing within its Arctic EEZ, which has been in force since 2009 [14]. The policy will remain in force until there are sufficient data to set economically viable fishing quotas that do not reduce the sustainability of the fish stocks or the ecosystem. Canada followed in 2014 with its *Beaufort Sea Integrated Fisheries Management Framework*, which, acknowledging the current lack of sufficient scientific data, takes the precautionary approach of preventing commercial fishing [15].

Norway is the first state among the A5 to have a domestic law that prohibits access of its fishing vessels to unregulated high seas areas, including the CAO [16]. Russia does not appear to have any specific policies regarding fisheries in its Arctic EEZ, though given the size of Russia's Arctic coastline, a single policy for the entire EEZ may be unlikely. Considering the important role of Arctic fisheries in both Norway and Russia, neither country may be willing to impose a fisheries moratorium in its Arctic EEZ. It is important to note, however, that the Arctic fisheries of both countries are in the Barents Sea, with Russia having additional major fisheries in the Bering Sea. Neither region borders the CAO directly, reducing the likelihood of a near-term conflict of interest for Norway or Russia between its domestic policies and any international commitments through a CAO fisheries agreement.

Denmark has supported a CAO fisheries moratorium since the A5 negotiations started, consistent with its policy of taking a precautionary approach to sustainable exploitation of Arctic living resources as indicated in the *Kingdom of Denmark Strategy for the Arctic 2011–2020* [17]. Commercial fisheries in Greenland are currently concentrated in West Greenland, far from the CAO, and Greenland has no communities on the Arctic Ocean coast.

The *FSA* prioritizes compatibility between EEZ and adjoining high seas fisheries management: "Conservation and management measures established for the high seas and those adopted for areas under national jurisdiction shall be compatible in order to ensure conservation and management of the straddling fish stocks and highly migratory fish stocks in their entirety" [18]. There is a unanimous agreement among the A5 for a fisheries moratorium as the interim measure in the CAO, but so far no indication of aiming for consistency in Arctic EEZ fisheries policies nor of intent to make their EEZ policies compatible with the CAO fisheries agreement. This gap is one of the reasons for the suspicion among other states of the A5's intention behind the *Oslo Declaration* and the rationale for a fishing moratorium as an interim measure [8], though again it is important to note that there are currently no fisheries within EEZ areas bordering the CAO, and that the two countries with explicit policies (Canada and the USA) are both consistent with the aims of the CAO fisheries agreement being negotiated.

Some scholars have analyzed CAO fisheries management issues. Most hold the opinion that the A5's active involvement in CAO fisheries management is an indication of its desire for CAO stewardship [8,16]; however, most also support the call for the involvement of all stakeholders within and beyond the Arctic into the scientific research and establishment of a CAO fisheries management regime in order to ensure its legitimacy [19–21]. The gap between the so-interpreted A5's claims

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