Northwest Atlantic Fisheries Organization

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SCIENTIFIC COUNCIL MEETING – 2015

Canada's Request for Coastal State Advice

1. Greenland halibut (Subareas 0 and 1)

The Scientific Council is requested, subject to the concurrence of Denmark (on behalf of Greenland) as regards Subarea 1, to provide an overall assessment of status and trends in the total stock area throughout its range and to specifically advise on TAC levels for 2016, separately, for Greenland halibut in Divisions 0A+1A (offshore) and 1B, and Divisions 0B+1C-F.[1] The Scientific Council is also asked to provide advice on any other management measures it deems appropriate to ensure the sustainability of these resources.

a) It is noted that at this time only general biological advice and/or catch data are available, few standard criteria exist on which to base advice. The stock status should be evaluated in the context of management requirements for long-term sustainability and the advice provided should be consistent with the precautionary approach and include likely risk considerations and implications as much as possible, including risks of maintaining current TAC levels and any risks and available details of observations that would support an increase or decrease in the TACs.
b) Recognizing that this is a data poor fishery, and that no model exists at this time to provide risk-based advice to inform management options, the Scientific Council is also asked to identify what would be required in order to provide risk based advice in the future.

The following graphs should be presented, for one or several surveys, for the longest time-period possible:

- historical catches;
- abundance and biomass indices;
- an age or size range chosen to represent the spawning population;
- an age or size range chosen to represent the exploited population;

[1] The Scientific Council has noted previously that there is no biological basis for conducting separate assessments for Greenland halibut throughout Subareas 0-3, but has advised that separate TACs be maintained for different areas of the distribution of Greenland halibut.

- recruitment proxy or index for an age or size-range chosen to represent the recruiting population;
- fishing mortality proxy, such as the ratio of reported commercial catches to a measure of the exploited population;
- stock trajectory against reference points

Any other information the Scientific Council feels is relevant should also be provided.

2. Shrimp (Divisions 0A and Subarea 1)

Canada requests the Scientific Council to consider the following options in assessing and projecting future stock levels for Shrimp in Subareas 0 and 1:

a) The status of the stock should be reviewed and management options evaluated in terms of their implications for fishable stock size, spawning stock size, recruitment prospect, catch rate and catch over the next 5 years. The implications of catch options ranging from 30,000 t to the catch corresponding to Z MSY, in 5,000 t increments, should be forecast for 2016 through 2020 if possible, and evaluated in relation to precautionary reference points of both mortality and fishable stock biomass. Results should include a partitioning of the future estimable removals between catches and estimable predation for the various catch options requested. The present stock size and fishable stock size should be described in relation to those observed historically and those to be expected in the next 5 years under the various catch options requested, and any other options Scientific Council feels worthy of consideration.

b) Management options should be provided within the Northwest Atlantic Fisheries Organization Precautionary Approach Framework. Uncertainties in the assessment should be evaluated and presented in the form of risk analyses related to the limit reference points of B_{lim} and Z_{MSY}.

c) Presentation of the results should include the following:
- a graph and table of historical yield and fishing mortality for the longest time period possible;
- a graph of biomass relative to B_{MSY}, and recruitment levels for the longest time period possible.
- a graph of the stock trajectory compared to B_{lim} and/or B_{MSY} and Z_{MSY}.;
- graphs and tables of total mortality (Z) and fishable biomass for a range of projected catch options (as noted in 2 a) for the years 2016 to 2020 if possible. Projections should include both catch options and a range of cod biomass levels considered appropriate by SC. Results should include risk analyses of falling below B_{MSY} and B_{lim}, and of exceeding Z_{MSY}.;
- a graph of the total area fished for the longest time period possible; and
- any other graph or table the Scientific Council feels is relevant.