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SCIENTIFIC COUNCIL MEETING – JUNE 2001

**CANADIAN REQUEST FOR SCIENTIFIC ADVICE ON MANAGEMENT IN 2002
OF CERTAIN STOCKS IN SUBAREAS 0 TO 4**

1. Canada requests that the Scientific Council, at its meeting in advance of the 2001 Annual Meeting of NAFO, subject to the concurrence of Denmark (on behalf of Greenland), provide advice on the scientific basis for management in 2002 of the following stocks:

Shrimp (Subareas 0 and 1)
Greenland halibut (Subareas 0 and 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. The Council is asked therefore, 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 throughout its range and comment on its management in Subareas 0+1 for 2002. In particular, the Council is asked to advise on appropriate TAC levels separately for SA 0+1, for SA 2+Division 3K and for Divisions 3LMNO, and to make recommendations on the distribution of fishing effort within each of these three geographic areas.

With respect to shrimp, it is recognized that the Council may, at its discretion, delay providing advice until later in the year, taking into account data availability, predictive capability, and the logistics of additional meetings.

2. Canada requests the Scientific Council to consider the following options in assessing and projecting future stock levels for those stocks listed above:
 - a) For those stocks subject to analytical-type assessments, the status of the stock should be reviewed and management options evaluated in terms of their implications for fishable stock size in both the short- and long-term. The implications of no fishing as well as fishing at $F_{0,1}$ and $F_{1,999}$ in 2001 and subsequent years should be evaluated in relation to precautionary reference points of both fishing mortality and spawning stock biomass. The present stock size and spawning stock size should be described in relation to those observed historically and those to be expected in the longer term under this range of fishing mortalities, and any other options Scientific Council feels worthy of consideration under a precautionary framework.

Opinions of the Scientific Council should be expressed in regard to stock size, spawning stock sizes, recruitment prospects, catch rates and catches implied by these management strategies for the short- and long-term. Values of F corresponding to the reference points should be given. Uncertainties in the assessment should be evaluated and presented in the form of risk analyses related to B_{lim} (B_{buf}) and B_{target} , and F_{lim} (F_{buf}) and F_{target} .

- b) For those stocks subject to general production-type assessments, the time series of data should be updated, the status of the stock should be reviewed and management options evaluated in the way described above to the extent possible. Management options should be within the precautionary framework.
- c) For those resources for which only general biological 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 management options evaluated in the way described above to the extent possible. Management options should be within the precautionary framework.

d) Presentation of the results should include the following:

I. For stocks for which analytical-type assessments are possible:

- A graph of historical yield and fishing mortality for the longest time period possible;
- A graph of spawning stock biomass and recruitment levels for the longest time period possible;
- Graphs and tables of catch options for the year 2001 and subsequent years over a range of fishing mortality rates (F) at least from $F = 0$ to $F_{0.1}$ including risk analyses;
- Graphs and tables showing spawning stock biomass corresponding to each catch option including risk analyses;
- Graphs showing the yield-per-recruit and spawning stock per recruit values for a range of fishing mortalities.

II. For stocks for which advice is based on general production models, the relevant graph of production on fishing mortality rate or fishing effort.

In all cases, the three reference points, $F = 0$, actual F, and $F_{0.1}$ should be shown.

3. For the cod stock in Divisions 2J+3KL, the Scientific Council is requested to report on recent trends in (and the current size of) the total and spawning biomass based on the most recent assessment of the stock.
4. Noting the increase in by-catch of 3LNO yellowtail flounder in other fisheries, in particular the skate fishery, the Scientific Council is requested to comment on the potential impacts of these by-catches on the long-term sustainability of the yellowtail flounder resource.
5. Based on information available to date regarding the 2000 fisheries in the NAFO Regulatory Area, there appears to be significant discrepancies regarding by-catches of American plaice between observer reports and the STATLANT 21A information. Scientific Council is requested to review all available information and provide its best estimate of the actual by-catch removals of American plaice in the NRA. Further, the Scientific Council is requested to comment on the potential impacts of these by-catches on the recovery of this resource. This will require that national scientists analyse their respective observer reports for the 2000 fishery and bring the results to the June Scientific Council meeting for discussion.
6. With regard to redfish in Division 1F the Scientific Council is requested.
 - a) to review all available information related to the biology and distribution of oceanic redfish in the north Atlantic and to provide, to the extent possible, commentary on possible links to various shelf stocks in the northwest Atlantic.
 - b) to make recommendations on the most appropriate means of interaction with ICES with regards to this resource.

Canada would also like to put the Scientific Council on notice that we will possibly be asking further questions regarding shrimp later in the year in time for consideration of the shrimp assessment that is now normally conducted in November.

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