

Northwest Atlantic



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SCIENTIFIC COUNCIL MEETING - JUNE 1995

Canadian Request for Scientific Advice on Management in 1996
of Certain Stocks in Subareas 0 to 4

by

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1. Canada requests that the Scientific Council, at its meeting in advance of the 1995 Annual Meeting, provide advice on the scientific basis for the management of the following fish and invertebrate stocks in 1996:

Roundnose grenadier (Subareas 2 and 3)
Silver hake (Div. 4V, 4W and 4X)

It is also suggested that, subject to the concurrence of Denmark (Greenland), the Scientific Council, prior to the 1995 Annual Meeting of NAFO, provide advice on the scientific basis for management in 1996 of the following stocks:

Shrimp (Subareas 0 and 1)
Greenland halibut (Subareas 0 and 1)
Roundnose grenadier (Subareas 0 and 1)

The Scientific Council has noted previously there was no biological basis for making two separate assessments for the 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 (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, including any expansion of the responses to the questions asked in June 1993. 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. The Council is asked also to provide information on present harvest patterns in terms of yield per recruit and on distributional variation of the resource in recent years.

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 dynamic-pool type assessments, the status of the stock should be reviewed and implications of fishing at $F_{0.1}$ in 1996 and subsequent years should be evaluated. The present stock size should be described in relation to those observed historically and those to be expected at the $F_{0.1}$ level in both the short and long term. In those cases where present spawning stock size is a matter of scientific concern in relation to the continuing productive potential of the stock, management options should be considered to rebuild the spawning stock. All results should be expressed in terms of stock sizes, catch rates and TACs implied for 1996 and the long term.
 - b) For those stocks subject to general production-type assessments, the status of the stock should be reviewed and management options evaluated in the way described above to the extent possible. In this case, the general reference point should be the level of fishing effort (F) which is two-thirds that calculated to be required to take the MSY catch in the long term.

- c) For those resources on which only general biological and/or catch data are available, no standard criteria on which to base advice can be established. The evidence on stock status should, however, be weighed against a strategy of optimum yield management and maintenance of stock biomass at levels of about two-thirds that of the virgin stock.
3. The Scientific Council is requested to review the status of the cod stock in Divisions 2J+3KL and to provide estimates of the current size of the total and spawning biomass, together with a description of recent trends. The Council is asked further to provide estimates of the immediate and long-term outlook for the abundance of this stock, including both total and spawning biomass.

SPECIAL QUESTIONS FROM CANADA ON GREENLAND HALIBUT IN SA 2+3
FOR NAFO SCIENTIFIC COUNCIL, JUNE 7-21, 1995

1. Determine any trends in the size and age composition of Greenland halibut catches and provide advice on the conservation implications of the trends.
2. What are the implications for the conservation of the stock and long-term harvest in terms of yield-per-recruit and spawning biomass-per-recruit of fishing under three assumptions about the sizes of entry/full recruitment as:
 - a) associated with current NAFO regulated mesh size;
 - b) harvesting practices that delayed significant recruitment until 60 cm fish length;
 - c) harvesting practices that permitted significant recruitment at 30 cm.
3. Determine any trends in the spawning stock biomass in SA 2+3 and in the proportion of mature fish in this area.
4. The 1990 year-class has appeared strong in research vessel catches and its strength is confirmed by large numbers found in commercial catches during the early part of 1995. At age five, it is many years away from contributing to the spawning stock. What changes in management of the fishery in 1995 and future years would be needed to minimize catches of this year-class while it is young and rapidly growing and allow it to make a) 25%, b) 50%, or c) 75% of the contribution to future spawning biomass that it would if none of it was caught at immature ages.
5. Research surveys of Greenland halibut in SA 2+3 declined from the late 1970s to the mid 1990s. The stock level in the mid 1980s is intermediate between the relatively high levels of the late 1970s and the current low abundance and could support a sustainable fishery in the long term. Provide strategy options to rebuild the trawlable biomass in SA 2+3 and the percent mature in the population within five and ten years to the approximate level of the mid 1980s.
6. By-catch of American plaice from Div. 3LNO in the Greenland halibut fishery has increased. This American plaice stock is under moratorium. Provide advice on ways to eliminate or minimize this by-catch.

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