

Northwest Atlantic



Fisheries Organization

Serial No. N1130

NAFO SCS Doc. 86/12

SCIENTIFIC COUNCIL MEETING - JUNE 1986

Denmark (Greenland) Request for Scientific Advice on
Management of Certain Stocks in 1987

Submitted by

Einar Lemche

Greenland Home Rule Authorities

1. Denmark, on behalf of Greenland, requests the Scientific Council of NAFO at its June 1986 Meeting to provide advice on the status of the stocks and on the scientific basis for management in 1987 and as many years onward as the data allow for the following stocks:
 - a) Stocks occurring in Subarea 1
 - i) Atlantic cod
 - ii) Redfish (by species, if possible)
 - iii) Wolffish (by species (spotted and striped), if possible)
 - b) Stocks overlapping Subareas 0 and 1 (subject to the concurrence of Canada)
 - i) Greenland halibut
 - ii) Roundnose grenadier
 - iii) Northern shrimp (*Pandalus borealis*)
2. In the analyses on which management advice will be based, the following should be included:
 - a) For cod in Subarea 1, the current stock size and its composition and distribution should be analyzed and form the basis for management options in which catch and catch composition (by age-groups) and the resultant stock size and spawning stock size are to be given, with the examples of options:
 - i) $F = F(0.1)$ from 1987 onward
 - ii) $F = F(\text{max})$ from 1987 onward
 - iii) $F = F(1985)$ from 1987 onward
 - iv) A steady catch level from 1987 onward with the annual catch level equal to (1) the TAC for 1985, and (2) the catch for 1986 calculated by the above options for $F(1987)$.

The maximum potential for rebuilding the spawning stock (i.e. complete stop of cod-fishing) should also be analyzed up to and including the stock size by January 1989.

A graph should be produced illustrating the resulting spawning stock by 1 January 1988 for any given catch level between zero and that for $F(\text{max})$, assuming that the catch level in 1986 is equal to the above-mentioned TAC for that year.

The report of the ICES Working Group on Cod Stocks off East Greenland, January 1986, indicates that year-classes 1984 and 1985 may be better than other year-classes in the present stock. The size of these year-classes should, if possible, be quantified and their expected spatial distribution in 1987 and 1988 described. The expected length and weight distribution of the catches calculated for 1987 and 1988 in the above-given options should be given, if possible by gear types.

- b) For redfish and wolffish in Subarea 1, options for management should, if possible, be expressed graphically in terms of catches in 1987 and the stock and spawning stock biomass by 1 January 1988 for a range of F -values covering at least for wolffish one-half to two times that in 1985 and for redfish one-half to four times that in 1985.
- c) For Greenland halibut and roundnose grenadier in Subareas 0+1, the guidelines provided above for wolffish in Subarea 1, supplemented by any other guidelines provided by Canada, should form the

basis for analyses and advice.

- d) For northern shrimp in Subarea 0+1, advice is requested on stock size and management options. As previously, it is further requested, in the possible extent, to include into the advice a statement on size composition of the actual catch in relation to the supposed composition of the stock.
 - e) Furthermore, we request a separate assessment of the shrimp stock north of 70°52.5'N on the north-west coast of Greenland (i.e. only in Subarea 1).
3. As in the past, advice on status of stock and management options for shrimp at East Greenland should also be provided in cooperation with ICES.
 4. The Scientific Council should feel free to report on such other invertebrate and finfish stocks in Subarea 1 and on such other scientifically-based management options for the above-mentioned Subarea 1 stocks as it feels applicable.