

Northwest Atlantic



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Recommendations for additional scientific survey
for *Greenland Halibut*

(Proposal presented and adopted in FC Working Paper 94/18)

In response to a request of the Fisheries Commission, the Scientific Council reviewed the research requirements considered necessary to significantly enhance knowledge on the biology and assessment of Greenland halibut in NAFO Subareas 2 and 3.

The major requirements are

- 1) survey coverage of the total stock area to depths of at least 1500 meters
- 2) data from the commercial fisheries including biological data

At present, part of the distribution area is being surveyed but coverage of deep strata has not been carried out except on an occasional basis. It is recognized that for proposals for expanded surveys to deeper water than usual some vessels currently used do not have the capacity to carry out surveys in deeper waters. Therefore, vessels with the necessary capability to fish deep water would be required as a complement.

In reviewing the current survey activity in comparison to the major requirement the Council noted that:

- 1) There has been no recent stratified random bottom trawl survey in Divisions 2GH.
- 2) The annual Canadian groundfish surveys conducted in autumn in Divisions 2J+3K and 3LNO extends only to 1000 meters and to 730 m respectively.
- 3) The only deeper water survey in 3KLMN was a Canadian survey carried out in the winter of 1994. If this is repeated, it should (at least) use the same design, gear and the same or similar vessel as used in 1994. In addition, the survey should be expanded to cover additional area in Divisions 3NO to where the commercial fishery has also expanded in recent years.
- 4) The annual groundfish survey conducted by the European Union in Division 3M during summer (mainly July) does not extend below 700 meters nor does it include the area of the Flemish Pass.
- 5) The European Union proposed Greenland halibut survey in the NAFO Regulatory Area using longlines to depths of 2000-2500 meters should be carried out in autumn 1995 in conjunction, and as a complement, to the Canadian groundfish surveys.

- 6) There is a need to expand sampling of the commercial fishery for biological data such as length, sex, maturity and age especially from deepwater fixed gear fisheries in Canada's far north where current sampling is very limited.
- 7) For the purpose of examining migratory patterns especially in the deepwater of 3LMNO, tagging studies should be conducted. As a first initiative, this should be conducted, in part, during the proposed European Union longline survey since longline gear offers an increased chance of survival from tagging.
- 8) In response to continued requests from the Fisheries Commission regarding minimum landing size for Greenland halibut, some gear selectivity studies using current regulated mesh size would be informative.

In addition to the above proposals, it would be advisable to continue the trawl surveys in Subarea 1 being the longest continuous survey time series on the stock in recent years, and further to supplement this with surveys in Division 0B offshore so as to cover the offshore distribution area.

Besides a thorough collection of biological data including length, sex, maturity, fecundity, diet, etc. from the above proposed surveys and expanded surveys, a complete set of appropriate environmental observations should be collected.