Fisheries Resource Conservation Council | Conseil pour la conservation des ressources halieutiques

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Other Conservation Measures

A FRCC Discussion Paper

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Canada

Table of Contents

INTRODUCTION

The mandate of the Fisheries Resource Conservation Council (FRCC) includes the provision of public recommendations to the Minister of Fisheries and Oceans on Total Allowable Catches (TAC's) and other conservation measures for the Atlantic fishery.

This discussion paper on "Other Conservation Measures" was developed by the Council to stimulate stakeholder discussion and commentary at the fall round of public hearings, on the applicability of such measures for the 1995 groundfish fishery.

The document outlines six possible Conservation Measures put forward by the FRCC for consideration. In particular, these measures have to be evaluated in terms of effectiveness from a conservation point of view as well as in terms of practicality of "implementation" and "enforcement" from a fishery management point of view.

An evaluation is being done by DFO scientists and fishery managers and their preliminary commentary will be available at the public meeting.

Stakeholders are now being asked to consider these measures and provide their views on the applicability of any or all of these measures for the stocks of interest to them.

POSSIBLE CONSERVATION MEASURES PUT FORWARD BY THE FRCC FOR CONSIDERATION

Measure No.1: *Better Monitoring and Control of Catches*

Objective: Accurate information on catches

Approach:

a) Monitoring and control of landings. There must be improvements in the quality and completeness of landing information from all gear sectors, so that real landings are known by industry, fisheries managers and scientists.

b) Control on dumping at sea. Given the ongoing dumping problems in the fishery, there is a crucial need for DFO and industry to develop enhanced management measures to further minimize incentives to dump at sea. There is also a need to develop monitoring mechanisms to better assess, record and quantify estimates of amounts of fish that are being dumped in the various fisheries.

Issues:

- What are the pros and cons of expanding to a 100% dockside monitoring program for monitoring landings of all vessels for all gear sectors versus a mandatory hail and spot check system?
- How can we get a better control of dumping at sea?

Measure No. 2 : *Appropriate level of TAC's in mixed stock fisheries*

Objective: Limit total actual fishing mortality

Approach: To avoid the arbitrary use of individual stock harvest limits in mixed stock fisheries when such levels imply excessive fishing mortality on some of the stocks involved.

Issues:

- When catches of various species are traditionally heavily intermixed, at any given time, and irrespective of gear technology, it would appear prudent to set levels of TAC's that recognize this phenomenon so as to minimize incentives to illegally dump at sea. As an alternative to strict application of individual TAC's should consideration be given to establishing some flexibility for " pooled " TAC's, combined with stringent control measures, to minimize abuse and high grading?
- How should a mixed stock fishery be managed to ensure that none of the TAC's are exceeded and that incentives for dumping at sea are minimized?
- To what extent can fishers direct for specific species such as cod, haddock, pollock and white hake?
- Are there other groundfish mixed stock fisheries which require special management considerations?
- What are the technically-feasible combinations of cod and other species such as haddock and pollock, that can be harvested without creating important incentives to dump at sea?

Measure No. 3 : *Effort Control*

Objective: Limit total fishing mortality

Approach: It is generally recognized that using a TAC alone does not effectively limit pressure on the resource because the rate of fishing mortality is in fact more closely related to the amount of fishing effort. In order to more effectively control fishing mortality, effort control could be established for the overall groundfish fishery as a first step, with the allowable effort considerably reduced from what was permitted in previous years.

The implementation of overall fishing effort control measures, expressed as a maximum number of sea-days for each of the various fleet sectors, based on the size of the TAC's and a suitable adjustment of some past measure of sea-days, e.g. an average of 1990-93. The groundfish fishery would then be closed for that fleet when the maximum number of sea-days or the fleet quota has been reached, whichever comes first.

Issues:

- What are the advantages or disadvantages of the effort -control approach from conservation and implementability perspectives?
- For specific overall TAC options that would be identified, what is implied in terms of a reduction in fishing mortality and effort?
- What is the relative merit of a "sea days" limitation versus a "season" limitation?
- Can a "sea days" limitation and "season" limitation be combined to achieve the desired effort reduction?

Measure No. 4: *Fish Maturity Target*

Objective: To ensure a suitable age\size\maturity structure in the catch over the next two or three years.

Approach: Based on the principle of "letting most fish spawn at least once", the approach is to set a target, in any given year, that the harvest must consist of at least a specified percentage of the catch being sexually mature fish, for all of the groundfish species and stocks. This fish maturity target could be achieved through gear selectivity and small fish protocols.

For 1995, it may be suitable to set a target that at least 50% of catch by number should be sexually mature and by 1998 that 90% of catch be sexually mature.

Issues:

- Qualitatively and quantitatively, what conservation benefits should result from this action?
- What is an estimate, for each stock and species of interest, of what size of fish this approach implies?
- What are the implications of targeting the above sizes from a gear selectivity point of view e.g. mesh/hook size?

Measure No.5: *Closed Areas*

Objective: Protect juvenile fish and\or spawning fish, and\or provide for no-fishing refuges or sanctuaries for the fish.

Approach: The implementation of closed areas, for any one or all three of the above purposes, recognizing that there may be or may not be overlap the areas in space and time. Such new closed areas could be established based on persuasive suggestion of the benefits recognizing that conclusive proof is impossible in many instances.

Issues:

- Exactly what closed areas are currently in place?
- What new areas seem to have the best conservation potential?
- What conservation benefits should result from such measures?
- What are the implications of closed areas being closed to all gears or just to some gears?
- What are the implications of closed areas being closed to all species or just for one or more species?
- Should areas closed for spawning be re-opened outside the spawning season?

Measure No. 6 : *Harvest Fish at Optimal Time of Season*

Objective: To minimize the conservation impact for any given level of TAC by reducing the potential number of fish killed.

Approach: It is generally recognized that the size and condition of the fish, in some stocks, varies throughout the year. Hence, consideration could be given to the development and implementation of incentives and management measures to induce the shifting of harvesting to more conservationist times of the year to control the number of fish killed. For example, the industry could perhaps be given the option of harvesting a lower TAC at one time of the year or a higher TAC at another time of the year. Alternatively only one level of TAC could be set but a significant portion would have to be caught at a more conservationist time of the year.

Issues:

- What are the biologically desirable harvesting times?
- Based on past month-by-month catch patterns, how much greater a TAC could be taken (for the same number and age distribution of fish killed) if harvesting is restricted to more biologically-desirable harvesting times of the year rather than being spread over the full year?