Canadian Stock Assessment Proceedings Series 97/14



Proceedings of the Fisheries Management Subcommittee Meeting

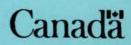
9 July 1997

Class of '47 Boardroom 19th Floor, Maritime Centre, Halifax Nova Scotia

September 1997

GC 2 P76 No97/14

Fisheries Pêches and Oceans et Océans Science



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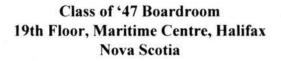
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Abstract

These Proceedings record the discussions held at the first RAP Fisheries Management Subcommittee meeting held in Halifax on 9 July 1997. This Subcommittee will be the forum to discuss a wide range of issues pertinent to the management of the marine resources of the Maritime Region. The agenda of this meeting was extensive and was used as a means to identify a number of issues that require further work. This will be conducted and presented a future meetings of the Subcommittee, planned for February and June/July of every year.

Résumé

Le présent document rend compte des discussions tenues à la première réunion du Sous-comité des pêches du PCR tenue à Halifax le 9 juillet 1997. Le Sous-comité en question sera le forum de discussions sur un vaste éventail de sujets ayant trait à la gestion des ressources marines de la Région des Maritimes. L'ordre du jour de la réunion était très chargé et a permis de mettre en évidence divers sujets qui nécessitent de plus amples discussions. Ces sujets seront présentés et traités lors des prochaines réunions du Sous-comité, prévues pour février et juin-juillet chaque année.

Introduction

The meeting was held on 9 July 1997 in the Class of 47 Boardroom in the Maritime Centre, Halifax. It was opened by the two co-chairs, G. Peacock and R. Vienneau. The meeting was well attended by a broad cross section of DFO Maritimes Region personnel (Appendix 1), with representatives from Resource Management, Statistics, Science, Enforcement, and Policy as well as the Area Managers. After introductions around the room, the agenda (Appendix 2) was discussed and approved. No other items were added. This report provides the discussion on each topic in the order that they occur on the agenda, rather than the order that they were addressed.

The list of documents both circulated before prior to the meeting and tabled at the meeting is given in Appendix 3.

Structure and Function of the Subcommittee (Rapporteur: T. Surette)

A copy of the approved Terms of Reference of the Subcommittee (Appendix 4) had been circulated with the agenda of the meeting. Bob O'Boyle gave a synopsis of this. He emphasized that the Subcommittee was to be a forum for debate and consensus building on fishery management issues, based on technical analyses which cover all elements of the DFO business lines. He noted that the Subcommittee would meet on a regular basis twice a year (February and June/July) to which would be brought working papers prepared on specific issues. The Fisheries Management Studies Working Group (FMSWG) does not report to the Subcommittee but is a working body which can be used to facilitate analyses in the inter-meeting periods. As a consequence, the FMSWG would likely meet more often than the Subcommittee and conduct more working sessions. It was noted by its chair, R. Halliday, that the agenda of the FMSWG would take its direction from the Subcommittee. One of the roles of the Subcommittee is not only to consider DFO issues but also the pronouncements of external agencies such as NAFO and the FRCC. This was seen as an important role of the Subcommittee.

The relationship of the Maritime Region's Subcommittee to others in the zone was questioned. The response was that there are no other equivalent bodies in the zone. However, if and when inter-regional issues arise, these would be discussed by the Regional Co-ordinating Committee in the Gulf for instance. The RAP Subcommittee would be the forum to discuss technical issues for the Co-ordinating Committee if required.

The need for core members was raised. These would be individuals in the various line organizations that would facilitate communication of the Subcommittee's business, preparation of meeting agenda, etc.

Action: The Subcommittee co-chairs (Peacock and Vienneau) are to identify core members for the Subcommittee.

The Subcommittee procedures were discussed. In general, when an issue arises, a working paper is produced and tabled at the Subcommittee for discussion. Along with this would be a draft Fisheries Status Report (FRS). After discussion, an approved FSR would be produced. Subsequently, the more complete working paper would be put into the Research Document series. Finally, the meeting's discussion would be recorded in the Proceedings series.

January and May 1997 Reports of the FMS Working Group (Rapporteur: R. O'Boyle)

The chair of the FMSWG (R. Halliday) presented the results of the last two working group meetings (CSAS Proceedings 97/8). Both meetings covered the same topics and were thus presented together.

The working relationships of the FMSWG was again described. It was to:

- · encourage research on management issues,
- review and synthesize analyses,
- be a centre for dissemination of information, and
- advise on research priorities on management issues.

The WG discussed reports from other groups as there is much work going on in ICES, NAFO Scientific Council and elsewhere that is relevant to the FM Subcommittee. The WG will provide synopses of these reports as and when they arise.

One of the main activities of the WG to date has been research planning. Ralph Halliday was particularly interested in obtaining feedback from the Subcommittee on this plan and its prioritization. He noted that at a meeting in October 1996, Marine Fish Division established fishery management research as one of its high priority activities. The Division Manager of MFD requested the WG to prepare a categorized list of important management issues, to inventory ongoing research on fishery management systems and measures, and to identify program areas requiring additional attention.

The January 1997 report of the WG (CSAS Proceedings 97/8) provides the categories used by the WG, these being:

- policy issues,
- regulation of fishing,
- system monitoring, and
- system performance review.

This broad scope reflects the WG's view of what fishery management research encompasses and is laid out in Annex 3 of the January report. It provides a framework for the work of the WG and hopefully will also prove of use to the Subcommittee.

Also provided in the January 1997 report is an inventory of on-going finfish projects, with more complete descriptions in Annex 4. This inventory is followed by a series of footnotes that comment on research gaps and on priorities. Note that this inventory includes Economics Branch as well as Science Branch projects. In the January meeting, three main issues were identified to be addressed on an urgent basis, these being:

- biological reference points,
- effort regulation, and
- accuracy of landings statistics.

Also carried forward were projects on co-management/partnering agreements, carry-over allocations, measurement of compliance, and system performance review.

The May 1997 meeting of the WG spent most of its time reviewing new information on comanagement/partnering agreements, fishing effort regulation and the documentation of effort trends, adoption of the precautionary approach and definition of reference points associated with this. As well, the draft Fisheries Status Report on landed values and participation in regional fisheries was discussed in preparation for this meeting of the Subcommittee.

It was pointed out that all of these issues come up in item 5 of the meeting agenda and thus the discussion then focused on those elements of the WG reports which are not covered by later agenda items, in particular, the categorized list of research priorities and the scope of research projects that are being undertaken.

The Subcommittee was generally impressed by the efforts of the WG but could not provide specific feedback on the work priorities at this time. It was considered that the report of the WG should be circulated to regional Management Directors and the RDG for their input.

Action: Peacock and Vienneau to circulate the WG report (CSAS Proceedings 97/8) to the Regional Management Directors and the RDG to solicit their input on the research list and priorities.

An issue was raised by J. Hansen that he felt could be addressed by the WG. This involved the distribution of groundfish in 4X and its potential implication for the quota allocations. It was not obvious at the meeting where this should be handled and R. O'Boyle offered to assist in facilitating this.

Action: J. Hansen to send R. O'Boyle a description of the problem so that he can send to the appropriate Science group for attention.

Business Arising from FMS WG

Management Plan Performance Review (Rapporteur: R.O'Boyle)

A working paper was presented by R. O'Boyle and C. Annand which outlined the current process used to compile Integrated Fisheries Management Plans (IFMP) and Conservation Harvest Plans (CHP). It called for more systematic review of these plans to ensure a consistent approach and content. It recommended that this Subcommittee, in its February 1998 meeting, work through one plan in its entirety. This would allow identification of follow-up work by the FMSWG which would then be tabled at a subsequent meeting. The result would be recommendations to managers on changes to these plans. It was recognized that this will be a long process. However, the review of the first plan would likely be the hardest and the reviews would get easier with time. The multi-year nature of the IFMPs allows RAP to establish a longer term review process so that eventually all plans would be reviewed.

During the discussion, the link between the IFMPs and the CHPs was raised. The role of the CHPs, which are generally fleet specific, was not obvious, particularly if the IFMP exists. However, it was noted that CHPs are specific to the groundfish sector and are useful administrative tools. Indeed, any groundfish IFMP should have the fleet CHPs have a specific year as appendices. It was noted that in the Gulf, the CHPs are reviewed by a DFO working group before implementation.

It was mentioned that DFO Ottawa has sponsored an audit of the IFMPs, with the report soon to be made public. Preliminary drafts indicate problems with the IFMPs that a RAP review could address. For instance, the lack of performance indicators or measures in existing IFMPs has been noted. Overall, there was general acceptance that the Subcommittee could provide a forum for review of the IFMPs. This could be used to address concerns raised in the audit report.

The Subcommittee then discussed which plan(s) to review. The feeling was that it would be useful to review two, rather than one, plans in February. No decision was made at the meeting which ones these were to be although Area 19 snow crab and either surf clams or Scotian Shelf shrimp were mentioned as possibilities.

Action: Peacock and Vienneau to determine which plans are to be reviewed in February 1998.

It was noted that the FMSWG could facilitate this review by providing the Subcommittee with its own analysis of the chosen plans.

R. O'Boyle mentioned that RAP could serve a catalogue service for the management plans. This would allow easy access in future years. The Subcommittee felt that this would be a useful service.

Action: O'Boyle to write memo from Peacock and Vienneau to Bellefontaine announcing that RAP could provide a catalogue service for the IFMPs.

Monitoring (Rapporteur: J. Nelson)

Unreported Catches and the Accuracy of Dockside Monitoring (DMP)

The issue dealt with related to the accuracy of landings statistics for stock assessment. Some expressed the view that scientists knew the old statistics system and could make adjustments/assumptions based on this knowledge, but are unfamiliar with the new system based on Dockside Monitoring. There was a desire to obtain more information on the operation of the new system.

Action: Chris Annand will prepare a report on the process and procedures involved in the collection of landings data under the Dockside Monitoring Program. This will be tabled at the next Subcommittee meeting.

Discrepancies between hails and landings have been noted by the system. The intent is to increase coverage on fishermen who miss-hail their landings. Unfortunately, it is not possible to obtain 100 percent coverage of the fixed gear groundfish fleet due to high cost (\$25-\$100/landing), compared to the low earnings of these vessels. It was noted that a working group on DMP exists in both the Gulf and Scotia-Fundy to review program activities. The possibility of audits of DMP was raised. Suggestion was made to examine plant production and work back to landings as was done in the herring fishery to check accuracy of data. A question raised on the percentage of hails that are routinely checked by C&P. This would allow some measure of the value of the hailing requirement. The data were not available at the meeting.

Action: Keith Venoit to provide percent coverage by fishery by month or quarter for the year at the next Subcommittee meeting.

Paul Fanning described the work that has been done and methodologies that he is using to estimate discards. Interviewing fishermen now about discards that occurred in 1985 does not provide reliable discard estimates. However, discard data from logbooks do exist and are being now computerized. Another approach is to compare at-sea sampling done by observers with the shore sampling by technicians. The results are mixed. There are very limited data on cases where the same vessel was sampled by observers and port samplers. The suggestion was made to increase sample size. Given current resources, this could only be done through targeted special projects. A report of this work will be available for the next meeting.

Action: P. Fanning to table a discarding report at the February 1998 Subcommittee meeting.

Other data sources for discarding are being considered. For instance, sampling information is available from Surveillance, although it is limited to mostly groundfish and some information on

swordfish. This data set could be potentially very useful in the future. It was mentioned that there is a pilot study to evaluate these data already underway (Annand is interacting with Peter Hurley). A preliminary evaluation will be presented at the October RAP. Dependent on this analysis, it will be useful to define a new form to be used by Surveillance to facilitate data entry. However, this should only be done without hindering Surveillance.

Action: Following the October RAP, Chris Annand to follow up with Bob Branton and Robert Sciochetti on the design of a new Surveillance data form.

Measurement of Compliance

Ralph Halliday gave a synopsis of the discussions at the FMSWG on this topic. Measures of compliance are very important for fisheries management decision making not only for resource utilization, but also for evaluation of work plans and objectives. It was suggested that Enforcement staff become members of the FMSWG to facilitate discussion on this topic at the working level.

Action: Real Vienneau to identify someone from the Gulf and Keith Venoit from Scotia-Fundy who would be willing to join the FMSWG.

Questions were asked as to what was happening in other regions (Ottawa) and in the US regarding the measurement of enforcement effectiveness. Dennis Brock from Ottawa could be asked to make a presentation to the Working Group. Bob O'Boyle mentioned the work of Jon Sutinen (an economist from University of Rhode Island) who has written extensively in the enforcement/compliance area. Bob will send out papers to those interested.

Action: Individuals interested in the enforcement package by Jon Sutinen to contact R. O'Boyle for a copy.

Economic and Social Indicators (Rapporteur: C. Annand)

The draft Fisheries Status Report (FSR) on 'Trends in Landed Value and Participation in the Maritime Region's Fisheries', which was prepared by D. Liew, was presented to the Subcommittee by L. Brander. It was noted that this FSR had been considered by the FMSWG as well, where a number of observations had been made to improve its content. The tabling at the Subcommittee was to obtain review of the document and reach agreement on whether to recommend to the RDG that he approve release of this document.

During the discussion, the source of the value information was queried. In recent years, price information off the landings slips has been diminishing, making the calculation of landed value dependent upon assumed fleet averages. It was noted that about 40 percent of the landed value data for the mobile gear fleet was missing. DMP does not retrieve these data as it fills in the information prior to the product entering the fish plant. The lack of this information is a problem as these numbers are used to calculate access fees.

In comparing the LFA 35 landed value of lobster to that in LFA 33, it was felt that the former was too high. Also, for the groundfish fishery, the number of active vessels in the Gulf herring gillnet fleet sector seemed too low. D. Liew confirmed these data subsequent to the meeting (Appendix 5).

Concerns were raised on the relevance of producing landed value and participation statistics on their own. They could be misinterpreted as indices of the success of a fishery. What is required is information on profits, incomes and employment in both primary and secondary sectors. These are the measures of fishery management performance that are relevant to judging the success of a fishery and its contribution to the economy.

The discussion covered a variety of related issues. The collection of processing costs is a provincial responsibility and DFO cannot impose data collection requirements on the provinces. DFO is no longer doing the cost and earnings surveys and would be necessary to cooperate with industry to collect this sort of information. There may be possibilities with Statistics Canada that are currently being investigated. The collection of this information could be built into the IFMP process. This raised debate on the overall value of these data and the requirement of DFO to collect it. The central mission of the department is conservation, not economics. Perhaps we could do without these data or at least collect it on an index fleet basis. It was further noted that whereas Science has a large infrastructure to collect stock-related data, this was not the case for economic or social information. In response to this sentiment, it was noted that there are a number of management measures that either explicitly or implicitly address the non-conservation aspects of fishing e.g. fleet shares. The issue of license fees was again discussed, noting that whereas shares are based on volume, fees are based on value, for which the data set is getting worse. It may be more useful to use volume throughout. This would have to be considered at an Ottawa level. Overall, it was felt that there was utility in collecting socio-economic information but that DFO would have to be creative in trying to obtain these data through sources outside the Department.

It was agreed to recommend the FSR on Trends in Landed Value and Participation be forwarded to the D/G for his approval for release.

Action: R O'Boyle.

Fishing Effort Management (Rapporteur: R. Miller)

FRCC Discussion Paper on Catch and Effort Controls

Ralph Halliday addressed managing groundfish catches through effort controls. He tabled comments on FRCC discussion paper titled "Quota controls and effort controls: conservation considerations". The Maritime Region Fisheries Management Studies Working Group discussed pros and cons of the report and concluded that more information was needed. The response of DFO Fisheries Management showed a preference for perfecting the quota controls now in place.

The Deputy Minister opposed supplanting quota control with effort control but agreed that a combination of the two regulatory measures could be worthy of investigation.

Annual Reports on Fishing Effort Trends

A paper by S. Gavaris was presented that reported long-term aggregate effort trends on the Scotia Sector groundfish fisheries. A number of aspects of this analysis that could make it difficult for the layperson to correctly interpret the results had been noted by the FMSWG that caused it to recommend against institution of an annual series of reports on these data at this time. The Subcommittee was informed of this recommendation.

Effort Management Pilot Project

A report was given of a pilot study which used historical catch and effort data for Georges Bank cod and haddock to calculate the effort necessary to take the 1996 fleet sector quotas. A good correlation resulted for the fixed gear but not the mobile gear fleet. However, Jon Hansen predicted that had the fixed gear fleet been actually limited by days-on-ground, they would have fished harder and exceeded their quota. Ralph Halliday identified three topics for which more study was required before days-on-ground controls could be implemented: a calibration of relative fishing power among different type and sizes of vessels; seasonal variation in catchability of target species; and effort-catch relationships in mixed species fisheries.

A proposal to strike a working group to draw up guidelines for effort controls was deferred pending more data collection and analysis.

Target and Limit Reference Points (Rapporteur: M. Showell)

Ralph Halliday gave a presentation on this issue. This was given in order to increase awareness in the Region about the potential impacts of the precautionary approach on our fisheries management. There has been considerable activity in various international bodies on the concept of the precautionary approach to fisheries management, due to the adoption of various international agreements. This approach requires the development of a new set of limit and target reference points to establish future exploitation rates. These concepts were discussed at the January and May meetings of the FMSWG, with a further session on the implications of these changes to regional fisheries envisioned in the fall. NAFO addressed this issue at its June 1997 meeting of the Scientific Council, where the relevant international agreements were reviewed and a proposal to examine a number of specific issues adopted. These include the definition of spawning stock biomass levels which set the precautionary levels of fishing mortality. This will be further discussed by NAFO in a March 1998 meeting and in the RAP cod Zonal review meeting, scheduled for January 1998. It was pointed out that the Subcommittee will be an important vehicle for communication and discussion on how best to implement the precautionary approach in the Region's fisheries. This will be an issue raised in the review of the IFMPs as mentioned above.

Carry-over Allocations (Rapporteur: R. O'Boyle)

In 1996, Fisheries Status Report 96/1E on Carryover Allocations was produced to guide Management in the use of this regulatory tool. The question was raised as to whether or not there has been any follow-up on this issue. It was replied that the measure would not be implemented until more reliance could be put on the catch statistics. The sentiment was raised that this measure could only work if there was 100 percent observer coverage of the fleet and until the accuracy of the catch data could be assured, this measure would not be implemented.

Proposal to Study Discarding and Dumping in 4T (Rapporteur: J. Nelson)

Rheal Vienneau reported that the Gulf Sector is trying to formalize a protocol for closing a fishery when discards are too high. Discards are monitored by checking at-sea observer data on fish size and quantities against dockside data and if there are major discrepancies, DFO can take action. The question arises as to what percentage difference would be enough to close a fishery? It was requested that the Subcommittee study this issue and provide the Gulf with the requested protocol (Appendix 6). This was accepted. It was noted that this issue has been studied before, without resolution and that a first step would be to review the previous work by C. Cooper.

Action: The FMSWG is to study this issue, set up a protocol that would define fishery closures in relation to discard rates, and table this for discussion at the February 1998 meeting of the Subcommittee. The results of the Subcommittee would then be presented to the Gulf Groundfish Advisory Committee in May 1998.

Coverage Levels for the Observer Program (Rapporteur: R. Claytor)

At the Senior Management Committee meeting of 20 June 1997, the issue of IOP coverage was raised. Specifically, it was asked if the Subcommittee could consider the current planned levels and conduct an evaluation of their adequacy for scientific and management purposes. Industry is now paying for the coverage and information to justify planned levels is warranted.

The RAP Co-ordinator, R. O'Boyle requested Mark Showell and Bob Sciocchetti to undertake some investigative analyses that could be discussed at this meeting. This would guide development of further work which would be considered at the February 1998 of the Subcommittee. The analyses requested included:

- 1996 IOP coverage levels by fishery;
- planned coverage levels, including background on the consultation undertaken to develop this plan; and
- draft outline of a study to define coverage levels which would provide the issues that need consideration and possible avenues for addressing these.

Mark Showell presented information on the first two issues. The tables showed observer coverage as a percent of total landings by vessel gear and tonnage. It was noted that the percent of non-groundfish species was available but was not presented. Overall, coverage levels were higher on the larger vessels than on the smaller ones, due to operational constraints. In these fleets, coverage of up to 54 percent were attained, although the average was considerably lower. The coverage of the TC 2 and 3 vessels was generally less than 3 percent.

The long-term plan indicated coverage levels considerably higher (10-20 percent) than observed during 1990-96. This was based on desired levels that the region had submitted to Ottawa. It was suggested that the potential of the DMP program to supplement biological sampling of landings be taken into account in further analyses.

The need for the continued collection of this information by Observers was not disputed. It is the only source of data for at-sea catch size composition by location (e.g. small fish) which is of interest to both Science and Enforcement. The issue is how to define adequate coverage levels. The resource managers present indicated that they would wish the option to negotiate coverage levels as part of the IFMP rather than being constrained to particular levels. This raised the issue as to what is the definition of coverage - percent trips, weight, value of fish? It was replied that coverage is currently defined by DFO as being by day at sea although this is not clear or accepted by all members of industry.

The Subcommittee discussed follow-up action. It was agreed that Science and Enforcement need to go through a prioritization exercise of their needs. This would then form the basis of dialogue with industry as part of negotiations on the IFMPs.

Action: Science and Enforcement undertake an exercise to prioritize their IOP requirements. This would take into account other data sources such as DMP.

Appendix 1. List of participants.

Name	Affiliation	<u>Telephone Number</u>
Alex MacIsaac	Eastern Nova Scotia - Fisheries Management	902-564-2400
Bob Miller	Science, Halifax Lab	902-426-8108
Bob Mohn	Marine Fish Division, Science	902-426-4592
Chris Annand	Resource Management Branch	902-426-3514
Chris Jones	Resource Management Branch	902-426-1782
Cindy Webster	Resource Management Branch	902-426-8384
Debbie Murphy	Economics	902-426-9480
Greg Peacock	Resource Management Branch	902-426-3625
Jim Jamieson	Resource Management Branch	902-426-8981
Jim Nelson	Economics	902-426-6786
Jon Hansen	Resource Management Branch	902-426-9046
Keith Veinot	Conservation and Protection	902-426-9622
Mark Showell	Marine Fish Division, Science	902-426-3501
Michel Audet	Economics	506-851-7759
Paul Fanning	Marine Fish Division, Science	902-426-3190
Paula Hanrahan	Conservation and Protection	902-426-1204
Ralph Halliday	Marine Fish Division, Science	902-426-3240
Rejean Hebert	Resource Management Branch	506-851-7793
Rex Hunter	Resource Management Branch	506-529-5853
Rheal Vienneau	Resource Management Branch	506-851-7790
Robert O'Boyle	Regional Advisory Process (RAP), Science	902-426-3526
Ross Claytor	Science, Gulf Fisheries Centre	506-851-6249
Tim Surette	Southwest Nova Scotia	902-742-0871
Tom Hurlbut	Science, Gulf Fisheries Centre	506-851-6216

Appendix 2. Agenda

Fisheries Management Subcommittee 10:00 - 17:00, 9 July 1997 Class of '47 Boardroom, 19th Floor Maritime Centre, Halifax.

Agenda

- 1. Introduction
- 2. Review of Agenda
- 3. Structure and Function of Subcommittee/O'Boyle
 - Terms of Reference
 - · Relationship to Fisheries Management Studies Working Group
- 4. January and May 1997 Reports of the FMS WG/ Halliday
- 5. Business Arising from FMS WG/Halliday
 - 1) Management Plan Performance Review/O'Boyle & Annand
 - a) What is intended
 - b) Mechanisms (FMS & FMS WG)
 - c) Review Schedule
 - d) Development of co-management and partnership concepts
 - 2) Monitoring
 - a) unreported catches
 - -performance of DMP
 - -indices of discarding
 - b) measurement of compliance
 - c) economic and social indicators /Liew: draft Fisheries Status Report)
 - 3) Fishing effort management
 - a) FRCC Discussion Paper on catch and effort controls: follow up
 - b) Annual reports on fishing effort trends
 - c) Effort Management Pilot Project
 - 4) Target and Limit Reference Points
 - a) Plan for Special Fall Session of the FMSWG
 - 5) Carry-over allocations: follow up
 - 6) 1997/98 Work schedule
- 6. Proposal to study discarding and Dumping in 4T / Vienneau
- 7. Coverage levels for the Observer program/Sciocchetti and Showell
- 8. Other Business

Appendix 3. List of documents presented at the meeting.

- Anon. 1992. Overview on Dumping and Discarding in the Groundfish Industry in the Atlantic Canada. DFO Operations Fishing Industry Services: 67p.
- DFO Science. 1996. Carry-Over Allocations. DFO Maritimes Regional Fisheries Status Report 96/1E.
- DFO Science. 1997. Fisheries Management Studies Working Group. Report of Meetings; 21-22 January 1997 and 27-28 May 1997. Canadian Stock Assessment Secretariat Proceedings Series 97/8.
- Endorsement of the Precautionary Approach by the Scientific Council. Extract from the NAFO Scientific Council meeting, June 1997.
- Fanning, P., and C. Marsh. 1997. Preliminary Report on Interview Data on Historical Discarding Practices.
- Gavaris, S. 1997. Effort Trends for the Cod/Haddock/Pollock Fisheries on the Scotian Shelf, Bay of Fundy and Georges Bank. RAP Working paper.
- O'Boyle, R., and C. Annand. 1997. The Review of Fisheries Management Plans by the RAP Fisheries Management Subcommittee. RAP Working Paper.
- Showell, M. 1997. 1990-1996 IOP Coverage Levels and the Long-term Plan. RAP Working Paper.
- Terms of Reference of the Fisheries Management Subcommittee, Maritimes Regional Advisory Process.

Appendix 4. Terms of Reference of the Subcommittee.

Fisheries Management Subcommittee Maritimes Regional Advisory Process

Terms of Reference

The Subcommittee is responsible for providing advice to the Regional Director-General (RDG) on the appropriate objectives, strategies, and regulatory measures (tactics) for the fisheries (groundfish, pelagic fish, invertebrate, diadromous, and marine mammal) of the Maritimes Region. To this end, it provides a forum for debate and consensus building on fishery management issues, based on technical analyses which address all elements of the DFO business lines relevant to these issues. The Subcommittee encourages a co-ordinated and harmonized approach to the implementation of management measures and procedures across the region. Specifically, the Subcommittee will:

- Conduct reviews of fisheries management plans, both proposed and already implemented, and provides comment on their content, effectiveness and need for improvement. Particular attention is paid to whether plans contain quantified targets which may be used to judge their success, and whether provision is made in the plans to collect the required information.
- Conduct reviews of specific issues e.g. Strategic reference points (target and limit), catch versus effort control, the regulation of dumping and discarding, rules on capacity control, etc., either brought forward by the Subcommittee or by other bodies, such as the Fisheries Management Studies Working Group (FMSWG).
- Provide input to and conduct reviews of the products of DFO and non DFO agencies, such as the FRCC, which make statements on DFO's management approaches.
- Develops an agenda for research and analysis to be co-ordinated through the FMSWG, or ad hoc groups struck by the subcommittee in support of its work.

The Subcommittee meets at least twice annually (late May - early June and February). These meetings are typically no more than two - three days duration and rotate between Halifax and Moncton. Additional meetings can be called by the chair, with approval of the RAP Steering Committee Chair.

The Subcommittee is co-chaired by the Directors of Resource Management in the Scotia-Fundy and Gulf Sectors. Designated core members assist the co-chairs in their communication with line management organization, to ensure that necessary preparatory work is done and that there is appropriate attendance at meetings. Core membership includes representation from:

- Resource Management Branch
- Science Branch
- Program Co-ordination and Economics Branch
- Conservation & Protection Branch
- Chair, Fisheries Management Studies WG (ex officio)

Attendance at Subcommittee meetings is open to all DFO employees. Attendance of non-DFO individuals is at the discretion of the chairmen, with the intent of bringing information and expertise from outside DFO to the table.

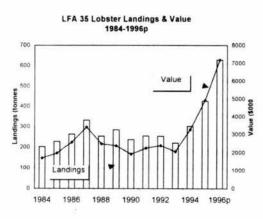
The Subcommittee's advice, once approved for release by the RDG, is published in the RAP Fisheries Status Report series. Proceedings of the Subcommittee, and of the FMSWG or any ad hoc WG formed by the Subcommittee, will be published in the RAP Proceedings series. The Subcommittee recommends publication of Research Documents as needed.

Appendix 5. Feedback on the FSR on Trends in Landed Value and Participation.

LFA 35

Total 1996 lobster landings and value recorded by the Stats system for this LFA (as of May 26/97) was respectively 658 tonnes and \$7.724 million. There are about 90 licenses in this LFA, giving an average of \$85,800 per license. The figure in the draft report was \$78,400. There are two reasons why the report figure is lower (1) the figure in the report was for average per vessel which tends to be lower due to license transfers, and (2) more landings could have been recorded since the report figures were compiled.

The following figure on landed value trends in this LFA since 1984 may explain the perceptions that the \$78,400 is high.



Gulf Herring Gillnet Licenses

Maurice Bourque reconfirmed the 2,500 herring gillnet licenses in the Gulf. He thinks that the 3,500 figure raised at the meeting may have included the Western Newfoundland portion that used to be included in the "old" Gulf.

Appendix 6. Gulf proposal on dumping/discarding.

Monitoring and Accounting of Dumping/Discarding of fish

Introduction

- For the purpose of this discussion Dumping/Discarding of fish in commercial fisheries is defined as the unwanted/illegal release of fish at sea. i.e. fish that should/must be landed and is not.
- For the groundfish fisheries some major progress has been made to address this issue over the past five years, i.e. mandatory landing, gear selectivity, CHP's, small fish and by-catch protocols, etc. However, it is suggested that it would be beneficial, from a conservation perspective, to introduce specific and should management measures for monitoring and estimating the levels of Dumping/Discarding.
- In the context of the fisheries of the future and in particular the reopening of closed groundfish fisheries it is suggested that the Monitoring of the levels of Dumping/Discarding be given a priority for the Southern Gulf.
- Although a specific focus on the groundfish fishery in the Southern Gulf is the subject of discussion here, it is suggested that similar issues are likely outstanding in other Atlantic groundfish fisheries and the same may perhaps be said about other non-groundfish fisheries.
- It is suggested that we seek the assistance of the Martitimes Region Fisheries Management Studies Working Group (FMSWG) to assist us in developing an approach (specific protocol) for Monitoring. This data would include both amounts and size frequencies by species.
- It is suggested that results of the FMSWG be reviewed by the Fisheries Management Subcommittee and be tabled at the regular Gulf Groundfish Advisory Committee for implementation in early May 1998.

Proposal - Gulf Fisheries Resource Management

Background

- In 1997, for the Southern Gulf, we currently have specific by-catch protocols for cod and while hake and small fish protocols for cod, white hake, american plaice, winter flounders and grey sole.
- In 1996, the DMP companies also sampled catches for size frequencies, under DFO guidelines, and provide the raw data to DFO Resource Management for use in enhancing the

implementation of the small fish protocols. A similar program will be implemented shortly in 1997.

• In 1997, we will be monitoring and documenting any discrepancies between the at-sea and dockside data for both by-catches and for small fish. Should there be any significant and unexplained discrepancies we will consider closing the fishery for that particular fleet and area based on a case-by-case review of available information. This approach will be used on an interim basis until a more formal protocol(s) can be developed in consultation with DFO Science, Conservation and Protection and the industry.

Recommendation

In light of the above, it is recommended that the FMSWG provide assistance and guidance on the following:

- The development of a specific management protocol for monitoring Dumping/Discarding in the Southern Gulf groundfish fisheries. This protocol could involve the establishment of a "discrepancy index" that would trigger closure of the fishery involve based on a comparative analysis of at-sea and dockside data. A discrepancy index would be required for by-catch and for small fish.
- 2. The development of a means for estimating the amounts of fish discarded so that these can be accounted for stock assessment and/or management purposes.