

FISHERIES
RESOURCE
CONSERVATION
COUNCIL

GEORGES BANK

1997 CONSERVATION
REQUIREMENTS FOR GEORGES
BANK GROUND FISH STOCKS

REPORT TO THE MINISTER OF
FISHERIES AND OCEANS

FRCC.97.R.2
May 1997



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May 13, 1997

The Honourable Fred Mifflin, P.C., M. P.
Minister of Fisheries and Oceans
200 Kent St.
Ottawa, Ontario
K1A 0E6

Dear Minister:

The mandate of the Fisheries Resource Conservation Council (FRCC) requires that it advise you on conservation requirements for Atlantic fish stocks. In keeping with this mandate we have conducted consultations with science and industry representatives on the conservation requirements for Georges Bank groundfish stocks.

The FRCC has now concluded consultations on eastern Georges Bank haddock, Georges Bank cod and Yellowtail Flounder. Our consultations, held in Yarmouth, Nova Scotia on May 7, were characterized by a strong conservation ethic on the part of all stakeholders. Stakeholders were unanimous in asking the FRCC to consider strong conservation measures on all of these stocks. Those who fish on Georges Bank have seen the signs of recovery and they are committed to seeing these stocks rebuild. All who attended our consultations believed that a rebuilding strategy for these stocks should be aggressively pursued and that TACs should continue to be set below the $F_{0.1}$ level to allow rebuilding to occur. All industry presentations and submissions recommended measures and quota levels that allow for rebuilding.

It was noted in consultations that delaying the opening of this fishery until June has had a positive effect as has the closed area on the US side of the line. Many in the industry pushed for a June 1 opening date as they believe this will allow for a cleaner fishery. It was stated by many of those present that the "hard line" conservation measures and conservative quotas of the past year were "paying off". Many spoke about more responsible fishing practices on the part of the industry. The conservation management measures that have been in place over the past three years such as mesh size, observer coverage, and mandatory dockside monitoring, should be maintained.

The Council wants to take this opportunity to thank the Department for the fine presentation given by scientists from the St. Andrews Biological Station. The high level of debate and discussion at the Yarmouth consultation indicated how healthy the rapport between science and industry is in this area. We believe this is also indicative of the quality of the advice and the presentation, and ultimately, how far we have all come in working together to achieve our conservation goals.

In establishing our recommendations for Georges Bank, Council used the following criteria, which we believe will lead to rebuilding of these stocks:

- **setting quotas below $F_{0.1}$,**
- **target an increase in biomass by 5 percent or more,**
- **risk of decline in biomass (from the risk analysis) in the order of 20 percent or less; and**
- **establishing an appropriate ratio of cod to haddock to minimize dumping and discarding.**

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Please note that all of the Council's quota recommendations, when combined with projected catch levels for the US are: below the $F_{0.1}$ level established in the Stock Status Reports, allow for rebuilding of the stocks of more than 5 percent, and the risk of decline in the biomass from quotas at these levels is less than 20 percent. You will note that the risk of decline in the biomass is slightly higher for cod than for the two other species, but Council felt it was important to maintain a better ratio of cod to haddock.

Your Council is pleased to have this opportunity to present you with this advice and we trust you will find this helpful in your deliberations.

Sincerely,

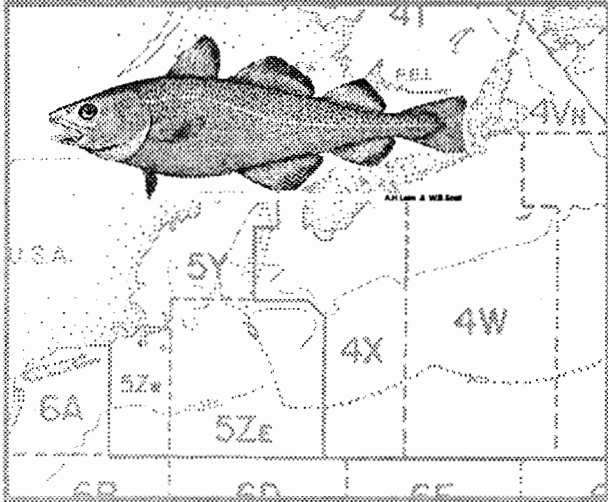
A handwritten signature in black ink, appearing to read "Fred Woodman", written in a cursive style. The signature is positioned above a horizontal line that extends to the right.

Fred Woodman
Chairman



CONSERVATION RECOMMENDATIONS FOR 1997 - STOCK-BY-STOCK

1. COD 5ZJ,M



HISTORY OF FRCC RECOMMENDATIONS:

In November 1993, the Council concluded that, from a conservation perspective, the fishery for this stock should be closed. The Council noted, however, that a closure by Canada alone would not be sufficient to protect the stock without corresponding action by the United States. The Council urged that consultations continue with the United States with the objective of undertaking urgent and immediate management action to rebuild this stock.

In 1994, the fishery was closed to all sectors from January 1 to May 31 and for an additional month to June 30 to the offshore sector. The U.S. fishery was closed from January 1 to June 30.

In November 1994, the Council recommended that bilateral consultations continue with the objective of undertaking management action appropriate to re-build this stock. In May 1995, the FRCC recommended to the Minister of Fisheries and Oceans that there be no directed fishing for 5Zj,m cod in 1995 and that by-catches be limited to less than 1000t. In November 1995, the Council again recommended that bilateral consultations continue and that the fishery remain closed until June 1996. In May 1996, the Council recommended that the 1996 TAC for 5Zj,m cod be set at 2,000t.

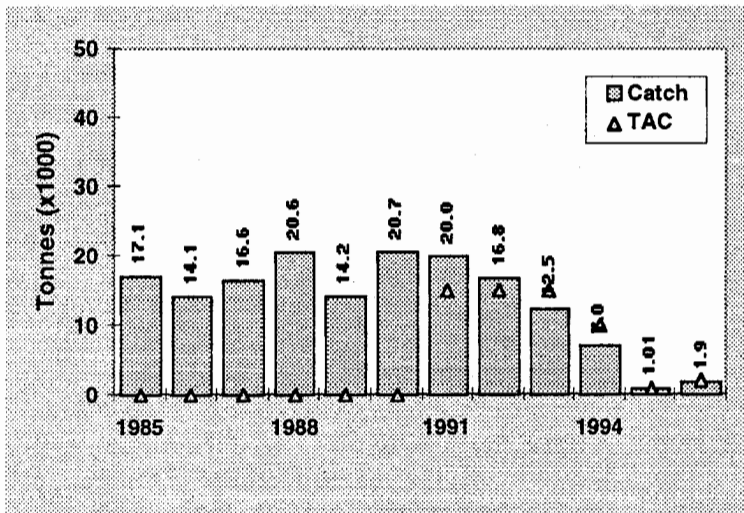
1997 CONSULTATIONS:

Consultation on 5Z cod were held in Yarmouth in May 1997. Stockholders expressed satisfaction with the initial rebuilding that took place over the past year but were unanimous in recommending further caution. Industry recommendations for TAC's were all below $F_{0.1}$. There was also general agreement that observers, mesh size and configuration and dockside monitoring had positive effects and

RECOMMENDATION # 1:

The FRCC recommends that:

- 1.1. bilateral discussions with the U.S. continue with the objective of undertaking management action appropriate to re-build this stock;
- 1.2. the Canadian quota for 1997 be set at 3,000t;
- 1.3. the fishery commence June 1, 1997 to allow a better mix of cod and haddock to minimize bycatch problems in the fishery.



but is still below the critical level required for more successful recruitment.

A Canadian quota of 3,000t is recommended because it will permit stock rebuilding, will keep exploitation low and will reduce the risk of decreasing the biomass. There is a 90% probability that the biomass will increase in 1998 under this scenario. The biomass is expected to increase by 19%.

that a closer to 1-1 ratio between cod and haddock quotas would also help in conducting a cleaner fishery.

ANALYSIS:

The 1997 DFO Stock Status Report indicates that:

- Exploitation is below $F_{0.1}$
- 1992 and 1995 year classes are moderate; 1994 and 1996 year classes weak
- 49% of 1996 catch comes from the 1992 year class
- Spawning stock biomass improving from low 1994 level, but still below critical level.

This is a transboundary stock. The Council recognizes the improvement made in the recovery of this stock as a result of the conservation measures adopted by industry in recent years and encourages a continuation of these initiatives.

The exploitation rate in 1996 was below $F_{0.1}$. The 1992 year class is moderate; made up 49% of the 1996 catch. The 1995 year class also appears to be moderate. The spawning stock biomass is improving from the low 1994 level

COUNCIL'S VIEWS ON STOCK STATUS:

Overall Stock Indicator: Some signs of recovery

Compared to average

Spawning Biomass: Increasing

Total Biomass: Below long term average

Recruitment: Recovery due to moderate year classes in 1992 and 1995

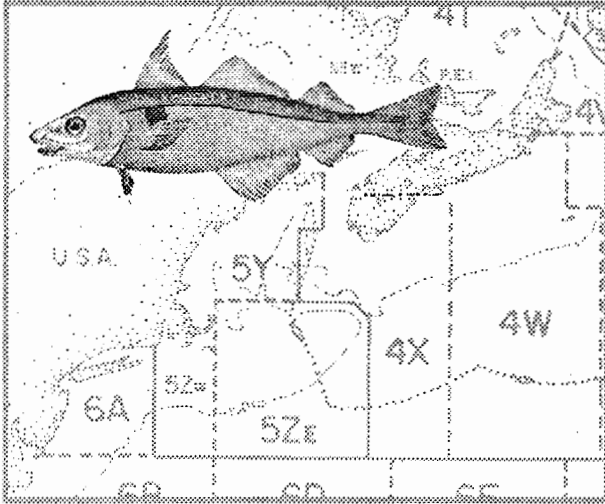
Growth and Condition: Average

Age Structure: Expanding

Distribution: Limited on US side.

Recent Exploitation Level: Below $F_{0.1}$

2. HADDOCK 5ZJ,M



HISTORY OF FRCC RECOMMENDATIONS:

In August 1993 and in November 1993, the Council recommended that, from a conservation perspective, the haddock fishery on Georges Bank should be closed. The Council urged the continuation of the consultations with the United States with the objective of undertaking urgent and immediate management action to rebuild this stock. The fishery was closed to all sectors from January 1 to May 31 in 1994 and for an additional month, to June 30, for the offshore. The management measures concentrated on avoiding the capture of the 1992 year-class estimated to be 45 cm throughout most of the year.

In 1994, the Council recommended that bilateral consultations continue with the objective of undertaking management action appropriate to rebuild this stock. In the meantime, the Council recommended that the fishery be closed until June 1995, prior to which time the Council would provide a definite recommendation with respect to the 1995 TAC. In May 1995, the Council recommended that the 1995 TAC for 5Zj,m haddock be set at 2,500t. In May 1996, the Council recommended that the 1996 TAC for 5Z,m haddock be set at 4,500t.

1997 CONSULTATIONS:

Consultations on 5Z haddock were held in Yarmouth in May 1997. Stockholders expressed satisfaction with the initial rebuilding that took place over the past year but were unanimous in recommending further caution. Industry recommendations for TAC's were all below $F_{0.1}$. There was also general agreement that observers and dockside monitoring had had positive effects and that a closer to 1-1 ratio between cod and haddock quotas would also help in conducting a cleaner fishery.

ANALYSIS:

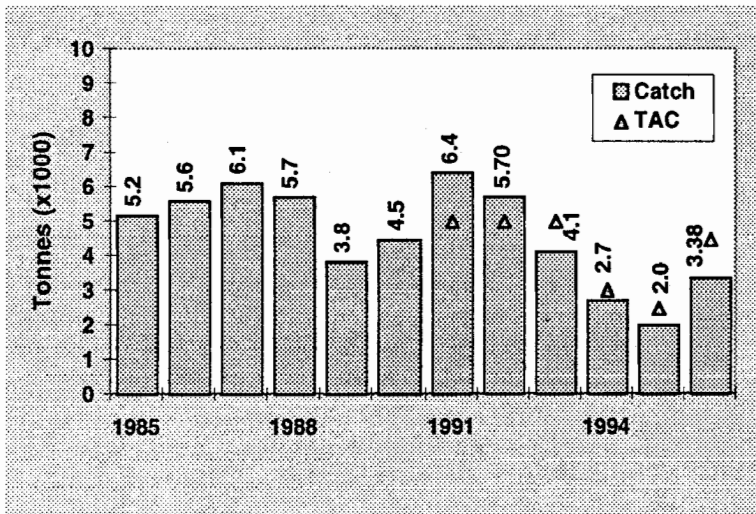
The 1997 DFO Stock Status Report indicates that:

- Exploitation below $F_{0.1}$

RECOMMENDATION # 2:

The FRCC recommends that:

- 2.1. bilateral discussions with the U.S. continue with the objective of undertaking management action appropriate to re-build this stock;
- 2.2. the Canadian quota for 1997 be set at 3,200t;
- 2.3. the fishery commence June 1, 1997 to allow a better mix of cod and haddock to minimize bycatch problems in the fishery.



- Moderate year classes in 1992 and 1993 but recruitment from subsequent year classes will be weak
- Biomass close to recent average, but less than 1/3 of long term average
- Spawning biomass still below critical level

This is a transboundary stock, the majority of which appears to be in Canadian waters.

The Council recognizes the improvements made in this stock as a result of the conservation measures adopted by industry in recent years and encourages a continuation of these initiatives.

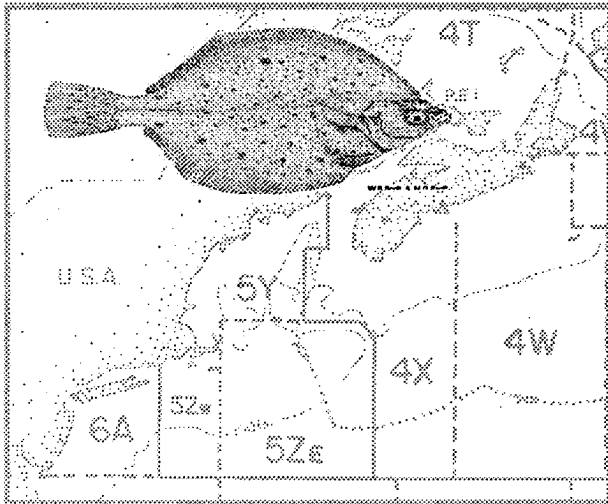
The FRCC is concerned with the apparent poor year classes since 1994. Despite some recovery, the biomass remains low in comparison to the levels of the 1930-1950's. For this reason a cautious approach must continue with the aim of promoting stock rebuilding.

A Canadian quota of 3,200t is recommended because it will permit stock rebuilding, will keep exploitation low and will reduce the risk of decreasing the biomass. There is a 73% probability that the biomass will exceed increase in 1998. The biomass is expected to increase by 7-8% under this scenario.

COUNCIL'S VIEWS ON STOCK STATUS:

Overall Stock Indicator	Some signs of recovery <i>Compared to average</i>
Spawning Biomass:	Stabilizing but at low levels
Total Biomass:	1/3 of levels of 1930's to 1950's
Recruitment:	Sporadic; 1992 and 1993 year classes moderate
Growth and Condition:	Average
Age Structure:	Few year classes
Distribution:	Limited on US side.
Recent Exploitation Level:	Below $F_{0.1}$

3. YELLOWTAIL FLOUNDER - 5ZJ,M



HISTORY OF FRCC RECOMMENDATIONS:

The directed fishery for yellowtail flounder began only recently, with 8 to 10 boats participating in a fishery. It was expanded rapidly in 1994, with about 40 vessels pursuing the fishery. In November 1995, the Council recommended that bilateral consultations continue with the U.S. with the objective of undertaking management action appropriate to rebuild this stock. In the meantime, it was recommended that the fishery remain closed until June 1996, prior to which time the Council would provide a definitive recommendation with respect to

the 1996 TAC. In May 1996, the Council recommended that the 1996 TAC for 5Z, in yellowtail flounder be set at 415t.

1997 CONSULTATIONS:

Consultations on 5Z yellowtail flounder were held in Yarmouth in May 1997. Stakeholders expressed satisfaction at the moderate rebuilding which has taken place, but asked the FRCC to remain cautious in its recommendations.

ANALYSIS:

The 1997 DFO Stock Status Report for this species indicates that:

- This has been a developing Canadian fishery since 1993
- Exploitation below $F_{0.1}$
- Biomass recovering but still at low level
- Recruitment improving, but no exceptional year classes in the 1990's

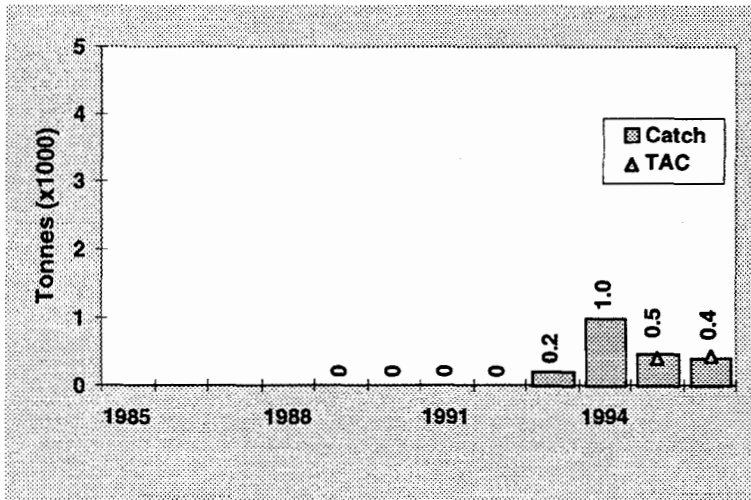
This is a transboundary stock, the majority of which appears to be in Canadian waters.

This is a relatively new fishery for the Canadian industry, which started in 1993.

RECOMMENDATION # 3:

The FRCC recommends that:

- 3.1. bilateral discussions with the U.S. continue with the objective of undertaking management action appropriate to re-build this stock;
- 3.2. the Canadian quota for 1997 be set at 800t.



two approaches used, please see DFO SSR A3-15, Yellowtail Flounder on Georges Bank.

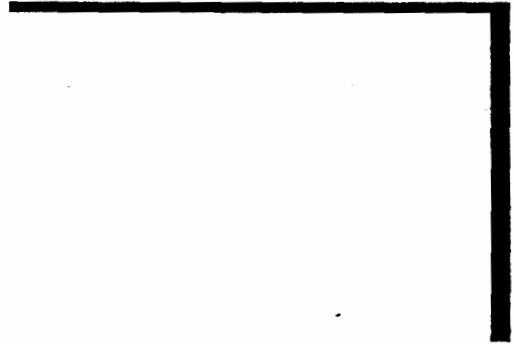
The Council recognizes the improvement made in this stock as a result of a cautious approach taken by industry in this fishery in recent years and encourages a continuation of these initiatives.

The biomass of yellowtail flounder is below the long term average but is showing signs of improvement. Moderate-to-strong year classes in the 1990's, but 1995 year class appears to be weak. The age structure of the population is expanding, as evidenced by the size composition in the landings over the past 3 years. Exploitation levels were well below $F_{0.1}$ in 1995 and 1996.

A Canadian quota of 800t is recommended for 1997 because it will permit stock rebuilding, will keep exploitation low and will reduce the risk of decreasing the biomass. There is a 80% probability that the biomass will increase in 1998. The biomass increase under this scenario may be of the order on 10%.

The Council notes that the above figures are calculated based on the method which provides the most conservative levels for $F_{0.1}$. The scientists applied another method in the DFO SSR that provided for a higher estimate of $F_{0.1}$ (or its equivalent). The Council is cautious, and believes that the alternate method may be overly optimistic. For detailed discussion of the

COUNCIL'S VIEWS ON STOCK STATUS:	
Overall Stock Indicator:	Rebuilding
	<i>Compared to average</i>
Spawning Biomass:	Below long term average but improving
Total Biomass:	Low
Recruitment:	Moderate/strong year classes in 1990's; 1995 appears weak.
Growth and Condition:	Average
Age Structure:	Expanding
Distribution:	More concentrated on Canadian side
Recent Exploitation Level:	Below $F_{0.1}$



APPENDIX A





A. LETTER TO STAKEHOLDERS

April 28, 1997

Dear Stakeholder:

On May 7, 1997, the Fisheries Resource Conservation Council (FRCC) will hold a public consultation at 9:30 A.M. in the Yarmouth Room of the RODD GRAND HOTEL in Yarmouth, Nova Scotia to gather information on Georges Bank groundfish stocks.

Stakeholders' views will assist the FRCC in providing advice to the Minister of Fisheries and Oceans regarding conservation requirements for Georges Bank haddock, cod and Yellowtail Flounder, Subarea 5Zjm.

The FRCC is committed to the continued rebuilding of Georges Bank groundfish stocks in order to attain a sustainable yield, closer to the term average. We are optimistic about these stocks, given the favourable environmental conditions which exist there, along with strong conservation measures which exist in the management of the Georges Bank fishery such as mandatory hailing, use of square mesh gear for otter trawls, small fish protocol, observers, and the continued use of mandatory dockside monitoring.

Our recommendations for 1996 reflected the strong conservation ethic expressed by industry representatives at consultations on these stocks. The Council commends the participation of all stakeholders at last year's meeting.

The FRCC gave the following advice to the Minister for the 1996: the Council recommended that the Canadian quota for haddock on Georges Bank (5Zjm) be set at 4500t, which was expected to allow for a 10 percent increase in the biomass for ages 3+.

For yellowtail flounder (5Zhjmn), the FRCC recommended that the quota be set at 415t, which was expected to allow for an increase of approximately 32 percent in the biomass for ages four and older.

The Council recommended that the quota for Georges Bank cod (5Zjm) be set at 2000t, to allow for a 7 percent in the biomass for age 3+.

To help focus the discussion at the Yarmouth consultation, the FRCC has produced the following questions:

1. Based on your knowledge of Georges Bank, are we at a comfortable level of biomass? What rebuilding threshold should we be seeking to reach?
2. How can we best enhance rebuilding of the stocks, e.g., fish at $F_{0.1}$ or less, ensuring more spawners and larger fish are left to produce adequate recruitment?
3. Were last year's FRCC recommendations appropriate to allow a clean fishery without dumping and discards? What should this year's recommendation be with respect to the proper mix between cod and haddock?
4. Given the complex ecosystem on Georges Bank, what effect do you think the proposed US herring bait fishery will have on Canadian groundfish stocks?

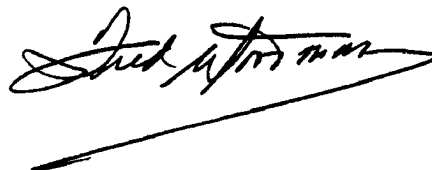
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Stakeholders are invited to make public presentations by way of oral presentation or by providing us with a written brief. The Council has also asked the Department of Fisheries and Oceans to present new data from its 1997 Stock Status report at the meeting.

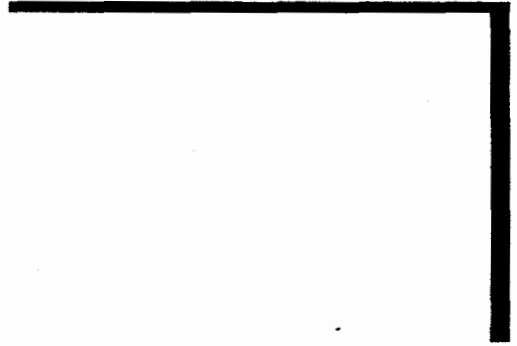
For further information, or if you are unable to attend and wish to submit a brief, please contact the FRCC:

Fisheries Resource Conservation Council
P.O. Box 2001 Station D
Ottawa, ON K1P 5W3
(613) 998-0433 voice
(613) 998-1146 fax
info@frcc.x400.gc.ca

Your views are important to the Council, and we hope you will participate fully.



Fred Woodman
Chairman



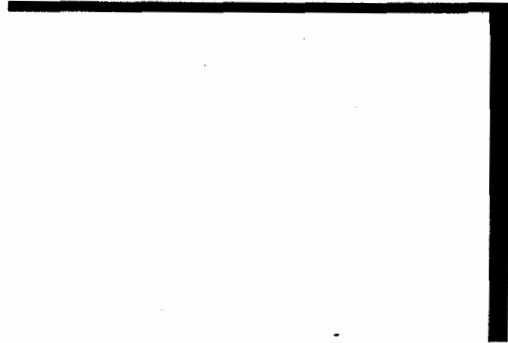
APPENDIX B





B. BRIEFS RECEIVED

FRCC.97.5Z-1	Bee d'Entremont, Acadian Fish Processors Ltd., Yarmouth Co., N.S.
FRCC.97.5Z-2	Claude d'Entremont, Inshore Fisheries Ltd., Yarmouth Co. N.S.
FRCC.97.5Z-3	Brian Giroux, Scotia Fundy Mobile Gear Fishermen's Association, Yarmouth, N.S.
FRCC.97.5Z-4	Evan L. Walters, Shelburne County Competitive Fishermen's Association, Shelburne, N.S.



APPENDIX C





C. FRCC MEMBERSHIP

MEMBERS:

Fred Woodman, Chairman
Dr. Jean-Claude Brêthes, Vice-Chair
Michael Belliveau
Bruce Chapman
Dr. Tony Charles
Frank d'Entremont
Sam Elsworth
Sally Goddard
Jean-Claude Grégoire
Tom Hallett
Frank Hennessey
Dr. Paul LeBlond
Dr. Victorin Mallet
Trevor Taylor
Maureen Yeadon

GEORGES BANK ASSESSMENT TEAM:

Frank d'Entremont
Sam Elsworth
Dr. Paul LeBlond
Maureen Yeadon

PROVINCIAL DELEGATES:

Bruce Ashley, Northwest Territories
Glen Blackwood, Newfoundland
Yvon Chiasson, New Brunswick
David Gillis, Prince Edward Island
Dario Lemelin, Québec
Clarrie MacKinnon, Nova Scotia

EX OFFICIO:

Bill Doubleday
Dawn Nicholson-O'Brien
Barry Rashotte

SECRETARIAT:

Catrina Tapley, Executive Director
Linda Brisebois
Renée Brisson
Michael Mancini
Denis Rivard
Lisa Tenace