# INTERNATIONAL COMMISSION

## FOR THE

# NORTHWEST ATLANTIC FISHERIES



## **ANNUAL REPORT**

(formerly Annual Proceedings)

# Vol. 23

for the year 1972/73

Dartmouth • Canada December 1973

# Letter of Transmittal

The Chairman of the International Commission for the Northwest Atlantic Fisheries presents his compliments to the Governments signatory of the International Convention for the Northwest Atlantic Fisheries signed at Washington under date of 8 February 1949, and to the Commissioners and Observers representing those Governments and has the honour to transmit herewith annual reports of the International Commission for the Northwest Atlantic Fisheries for the year 1972/73.

This is the 23rd annual report of proceedings of the Commission and is an authoritative record of its activities and achievements from 1 July 1972 to 30 June 1973. The report contains an account of the activities of the Commission's Secretariat; an account of Special Commission Meeting, January 1973; an account of the 23rd Annual Meeting, June 1973; and summaries of research carried out in each of the five Convention subareas and on seals in 1972.

This report is prepared and transmitted in conformity with the requirements of Article VI(1)(f) of the International Convention for the Northwest Atlantic Fisheries and Rules 3.2(g) and 9.1 of the Rules of Procedure of the Commission.

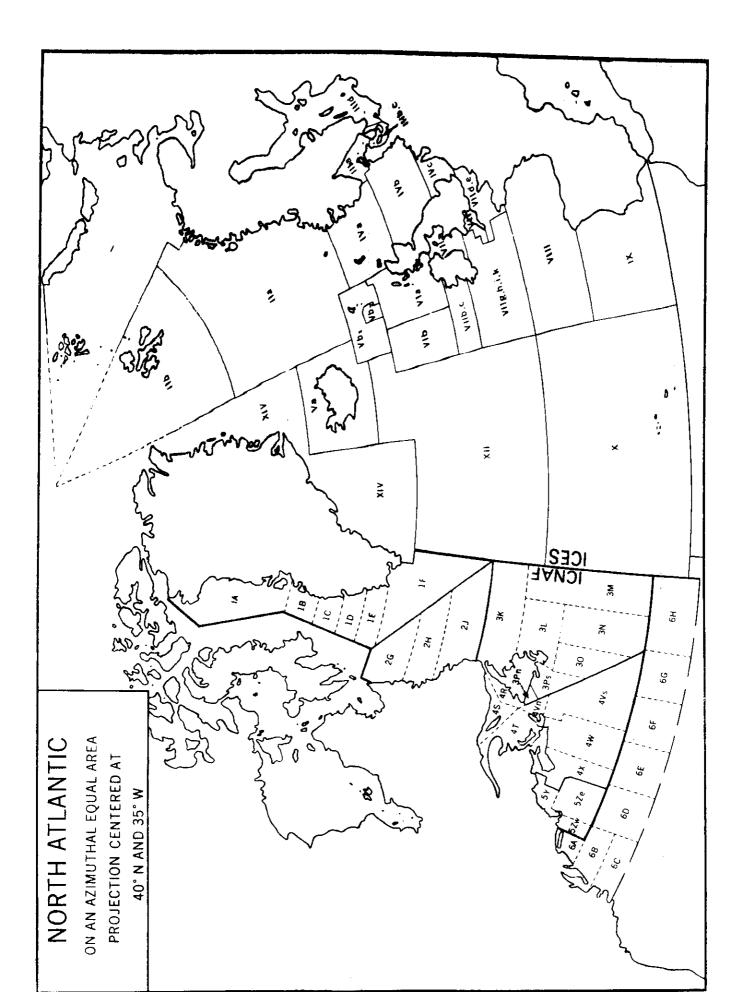
Janup

K. Løkkegaard, Chairman, International Commission for the Northwest Atlantic Fisheries.

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## PART 1

## Administrative Report for the Year Ending 30 June 1973

### 1. The Commission's New Member

On 21 August 1972 the People's Republic of Bulgaria deposited with the United States Department of State its instrument of adherence to the International Convention for the Northwest Atlantic Fisheries and its Protocols. By this action, the People's Republic of Bulgaria became, as at 21 August 1972, the 16th Member of the International Commission for the Northwest Atlantic Fisheries.

The Chairman of the Commission welcomed the Bulgarian delegation to their first Commission meeting on 5 June 1973 in Copenhagen, Denmark.

### 2. The Commission's Officers

Chairman of Commission		Mr K. Løkkegaard (Denmark)
Vice-Chairman		
of Commission		Mr. M. Fila (Poland)
Chairman of Panel 1		Mr G. Möcklinghoff (Fed. Rep. Germany)
Chairman of Panel 2	-	Mr. R. H. Letaconnoux (France)
Chairman of Panel 3		Mr A. Volkov (USSR)
Chairman of Panel 4	-	Captain J. C. E. Cardoso (Portugal)
Chairman of Panel 5		(vacant)
Chairman of Panel A		
(Seals)	<u> </u>	Dr A. W. H. Needler (Canada)

These officers, with two exceptions, were elected at the 1971 Annual Meeting to serve for a period of 2 years. At the 1972 Annual Meeting, Mr R. H. Letaconnoux (France) was elected Chairman of Panel 2 and Dr A. W. H. Needler (Canada), Chairman of Panel A (Seals), to serve for a period of 2 years.

Chairman of	Standing
Committee	on Re-
search and	Statistics
(STACRES)	<ul> <li>Dr A. S. Bogdanov</li> </ul>
	(USSR)

Chairman of	Standing	
Committee o	n Finance	
and Admi	nistration	
(STACFAD)		Mr Wm. L. Sullivan, Jr (USA)
Chairman of Committee gulatory (STACREM)	on Re- Measures	Mr J. Graham (UK)
Chairman of Committee national (STACTIC)	Standing on Inter- Control	Captain J. C. E. Cardoso (Portugal)

The Chairman of STACRES has been re-elected annually since 1970. The Chairman of STACFAD was re-elected at the 1972 Annual Meeting to serve for a period of 1 year. The Chairman of STACREM was elected at the first meeting of the Committee on 30 January 1968. The Chairman of STACTIC was elected at the 1972 Annual Meeting.

### 3. Panel Memberships for 1972/73

Member	Panel							
Country	1	2	3	4	5	A	Total	
Bulgaria								
Canada		1952	1951	1951	1951	1966	5	
Denmark	1951	_	1969	_	_	1966	3	
France	1953	1953	1953	1953	_	_	4	
Germany								
(Fed. Rep.)	1957	1960	-	1970	1971	_	4	
Iceland	1956	-	_	_	_	_	1	
Italy			1960	1960	_	-	2 2	
Japan			1971	1971	1971	_	3	
Norway	1952	1970	1968	_	_	1966	4	
Poland	1962	1962	1962	1968	1968	_	5	
Portugal	1953	1953	1953	1953	_	_	4	
Romania	_	1970	1970	_	1967	·	3	
Spain	1952	1954	1952	1952	1972	_	5	
USSR	1958	1958	1958	1962	1962	-	5	
UK	1951	1960	1951	-	_	-	3	
USA	-	-	1952	1951	1951	_	3	
TOTAL	10	10	13	10	8	3	 54	

## 4. The Commission's Office Accommodation

The Office of the Commission has been located at the Bedford Institute of Oceanography since 1 August 1963 under lease arrangements with the Canadian Government. The present lease expires 31 July 1973. A formal request for renewal for a further period of 3 vears beginning 1 August 1973 has been made to the Canadian Government through the Canadian Commissioner. Dr A. W. H. Needler.

The Secretariat, following an urgent request in mid-January 1972 for additional heated and lighted office accommodation in the Institute, was given an additional 220 sq ft, bringing the total working space to approximately 1,700 sq ft. The addition is most welcome but still not adequate.

### 5. The Commission's Secretariat

Present staff of the Secretariat includes:

Executive Secretary	-	L. R. Day
Assistant Executive Secretary	_	V. M. Hodder
Administrative		
Assistant	—	W. H. Champion
Senior Secretary	-	(Mrs) Vivian C. Kerr
Clerk Stenographer	_	(Mrs) Elizabeth R. Comford
Clerk-Statistician	-	G. M. Moulton
Clerk-Machine Operator		R. A. Mcyers (from 1 July 1972)

The addition, by authority of the Commission at the 1972 Annual Meeting, of Mr R. A. Meyers as Clerk-Machine Operator and the promotion of Mr G. M. Moulton to Clerk-Statistician has greatly strengthened the Secretariat operation.

The Executive Secretary attended the Symposium on the Biology of the Seal (14-17 August 1972, University of Guelph); attended the International Atlantic Salmon Symposium (19-23 September 1972, St. Andrews); attended the mid-term meetings of Scientific Advisers to Panel A and Panel A (6-9 November 1972, Copenhagen); attended the Special Commission Meeting with Mr Hodder, Mrs Kerr, and Mrs Cornford (8-26 January 1973, FAO, Rome); attended the FAO Technical Conference on Fishery Management and Development (12-23 February 1973, Vancouver); and attended a Special Meeting of Experts on Effort Limitation with Mr Hodder and Mrs Kerr (26-30 March 1973, Woods Hole). The Assistant Executive Secretary attended the Fifth Meeting of the ICES/ICNAF/IOC Joint Coordinating Group on Systematic Studies in the North Atlantic (23 September 1972, Copenhagen): attended the 60th ICES Meeting (25-30 September 1972, Copenhagen); attended a meeting of an *ad hoc* Working Group of the CWP on the contents of regional fisheries statistical bulletins (16 January 1973, FAO, Rome).

## 6. The Commission's Publications

The 1972 Proceedings of the 22nd Annual Meeting and of the Special Meeting on Herring (215 p.) was distributed in August 1972. Part I contains the reports of the meetings of the Plenary, Panels, and Standing Committees on Finance and Administration and on International Control held during the 22nd Annual Meeting of the Commission from 25 May through 2 June 1972. Part II contains the reports of meetings of the Plenary, Panels and a Working Group held during a Special Meeting of the Commission on Herring from 31 January through 7 February 1972.

The Redbook 1972 was issued in three parts. Part 1 (87 p.), containing the proceedings of the May 1972 meetings of the Standing Committee on Research and Statistics and its Subcommittees and Working Groups, was distributed in August 1972. Part II (106 p.), containing the reports on research carried out in the Convention Area in 1971 by the Member Countries, was distributed in September 1972. Part III (100 p.), containing selected scientific papers presented to the 1972 Annual Meeting and Special Meeting on Herring, was distributed 25 October 1972.

The Statistical Bulletin Vol. 21 for the year 1971 (136 p.), containing statistical data on the commercial fisheries and on the harp and hood seal hunt in the Convention and Statistical Areas of the Commission, was distributed in January 1973.

The Annual Proceedings Vol. 22 for 1971-72 (94 p.), containing the Administrative Report and audited financial statements for the fiscal year ending 30 June 1972, the Report of the 22nd Annual Meeting, the Report of the Special Commission Meeting on Herring and Summaries of Research and Status of Fisheries in each Subarea of the Convention Area in 1971, was distributed in February 1973.

The Research Bulletin of ICNAF No. 9 (126 p.), containing 13 scientific contributions, was distributed in February 1973.

The Sampling Yearbook Vol. 16 for 1971 (237 p.), containing length and age data for the major

commercial species sampled by the research agencies of the Member Countries in the ICNAF Divisions in 1971, was distributed in December 1972.

The Special Publications of ICNAF No. 8 (Symposium on Environmental Conditions in the Northwest Atlantic, 1960-1969) (254 p.) was distributed in July 1972.

The List of Vessels 1971 and Summaries of Fishing Effort for 1969, 1970, and 1971 (127 p.) was distributed in November 1972.

The 1973 Special Commission Meeting Proceedings (95 p.), containing reports of meetings of the Plenary, Panels, Standing Committees on Research and Statistics and on Regulatory Measures, and an *ad hoc* Committee, was distributed in April 1973.

The ICES Cooperative Research Report No. 33 (Report of the ICES/ICNAF Working Group on Cod Stocks in the North Atlantic, March 1972) (52 p.) was distributed in April 1973. ICNAF and ICES contributed equally to the cost of publication.

Under a reprinting program designed to provide copies of ICNAF publications which have been out of print, Special Publication No. 2, 45 p., 1960 (Fishing Effort, the Effects of Fishing on Resources and the Selectivity of Fishing Gear); Statistical Bulletin Vol. 15 for 1965, 95 p., 1966; Redbook 1967, Part IV, 105 p., 1967; and Redbook 1969, Part I, 62 p., 1969, have again been made available for distribution.

## 7. Cooperation with Other International Organizations and with Non-Member Countries

In accordance with Convention Article X, the Commission's Secretariat has continued close collaboration and cooperation with other international organizations which have related objectives, particularly with the Department of Fisheries, FAO, and with ICES and NEAFC.

ICNAF continues to cooperate with FAO, ICES, and ICCAT to improve the statistics on the fisheries in the Atlantic area.

ICNAF and ICES collaborate in providing advice to ICNAF and NEAFC on the management of the North Atlantic salmon stocks. Results of the joint international salmon tagging program at West Greenland in the summer of 1972 are presently being analyzed by ICNAF and ICES scientists. Again, other fishery commissions and international organizations concerned with fisheries and their management were invited as observers to the 23rd Annual Meeting of the Commission.

Invitations to Commission meetings and Commission publications are sent regularly to the Governments of Cuba and the German Democratic Republic, countries which have considerable interest in the fisheries in the Northwest Atlantic.

### 8. Commission Document Series

Following the recommendation of the Commission, the Secretariat has developed a third document series to be used starting with the 1973 Annual Meeting. The two previous scries are Commissioners Documents (Comm. Doe.) which include mainly conservation proposals and Research Documents (Res. Doc.) which include the research papers. The new series is called the Summary Document series (Summ. Doc.) and includes all reports and major statistical tabulations.

### 9. Statistics and Sampling

The application of automatic data-processing methods (ADP) facilitated the compilation and publication of Statistical Bulletin, Vol. 21, in December 1972, several months earlier than in previous years, and a limited number of copies were airmailed to assessment scientists in advance of the January 1973 Mid-Term Meeting, despite the fact that statistical submissions were being received up to the middle of November. If all Member Countries submitted their STATLANT 21B catch and effort statistics in accordance with the established deadline (15 June), the Statistical Bulletin could be issued as early as September or October.

The ICNAF List of Vessels, which is published every 3 years (the last issue contained 1968 data), was compiled by computer from data submitted by Member Countries for the year 1971. Many discrepancies were noted in the data for individual vessels when the 1971 data are compared with those of 1968, and it is hoped that these will be minimized in the future. It is proposed that, instead of requesting Member Countries to submit new lists every 3 years, computer-printed copies of the most recent list be sent to the countries for correction and updating by deleting vessels not participating in the fishery in a particular year and by adding new vessels operating since the last list was submitted.

Sampling data for the year 1971 were prepared as in the past and Vol. 16 of the Yearbook was issued in November 1972, four months earlier than the issuance of Vol. 15. It is planned that future issues will be compiled by ADP methods, but the format of data presentation needs significant standardization and streamlining and this is an important item on the agenda of the Statistics and Sampling Subcommittee for the June 1973 Annual Meeting.

In accordance with recommendations from the 1972 Annual Meeting, the statistical and sampling submissions of Member Countries were reviewed in some detail, reports outlining the major deficiencies in statistical and sampling reporting were prepared and countries individually informed of their inadequacies.

Other statistical activities during the year involved:

- a) the issuing of revised statistics on 1971 nominal catches by species. country and division (August 1972),
- b) the preparation of reports on trawl materials and mesh size sampling and on discards and industrial fish for 1971 for inclusion in Redbook 1972, Part III,
- c) the preparation of reports on summaries of fishing effort for the years 1969, 1970, and 1971 for inclusion in the 1971 List of Vessels,
- d) the extraction of detailed catch and effort data for GDR fisheries in Northwest Atlantic in 1969 and 1970 from *Fischerei-Forschung* and their compilation for distribution to ICNAF scientists and their ultimate inclusion in the next issue of Statistical Bulletin,
- e) contacting ICNAF scientists concerning the streamlining of Sampling Yearbook and the preparation of suggested layouts for presenting sampling data.
- f) attending ad hoc meeting of a small working group on standardization of regional statistical bulletins (Rome, January 1973), from which meeting evolved suggestions for improving the presentation of data in the Statistical Bulletin.
- g) the compilation of annual catch effort and

catch-per-unit-effort data by country and subarca for the January 1973 Mid-Term Assessments Subcommittee Meeting as an aid in discussions on effort limitations, and the preparation of similar computer tabulations for the March 1973 meeting on effort limitation at Woods Hole, USA,

h) the preparation of several documents for the 1973 Annual Meeting, viz preliminary compilation of available data on nominal catches in 1972 by division, country and species from 1972 STATLANT 21A returns; summaries of information on discards and industrial fish for 1971 from ICNAF Stat. Form 4; summary of information on trawl materials and mesh size sampling in 1972; summary of information on infringements in 1972; and the preparation of charts showing long-term trends by subareas and by countries for the major species, cod, haddock, redfish, flounders, silver hake, herring, and mackerel.

The Secretariat is pleased to acknowledge the cooperation of national statistical offices for their timely reporting of statistical data, and the assistance of Mr L. P. D. Gertenbach, Secretary of CWP, Department of Fisheries, FAO, has been invaluable. The Secretariat is particularly indebted to the Canadian Government, whose computer facilities at the Bedford Institute of Oceanography, Dartmouth, Nova Scotia, were invaluable in compiling most of the tabular material in Statistical Bulletin, Vol. 21.

### **10. Mid-Term Meetings**

On 9 November 1972, a mid-term meeting of Panel A (Seals) was convened in Charlottenlund, Denmark, under the chairmanship of Dr A. W. H. Needler (Canada). The Panel reviewed the report of a meeting of scientific advisers held 6 and 7 November 1972. The Panel members agreed to submit to their Governments regulations covering the 1973 harp seal fishery.

From 16 to 26 January 1973, the Commission met in special session at FAO in Rome to consider the effects of national catch quotas set for 1972 on the herring stocks on the Nova Scotia Bank, in the Gulf of Maine and on Georges Bank. National catch quotas in these three stocks were renegotiated following consideration of the reports of scientific meetings held from 8 to 15 January and other relevant economic and technical information. The meeting also considered the possibility for limitation of the increasing amount of fishing effort being applied on the commercial fish stocks in the southern part of the Northwest Atlantic area. The Commission agreed, pending further discussion of effort limitation, to refer its many scientific, economic and technical problems to a meeting of scientific and technical experts at Woods Hole, Massachusetts, in late March 1973. As an interim measure and pending further consideration of effort limitation, the Commission recommended 1973 national catch quotas for the currently unregulated species, mackerel, pollock, redfish and flounders other than yellowtail.

A Special ICNAF Meeting of Experts on Effort Limitation met at National Marine Fisheries Service, Woods Hole, Massachusetts, under the chairmanship of Dr R. L. Edwards (USA). The meeting prepared a report for the June 1973 meeting of STACREM, containing answers to questions posed by STACREM in January 1973 which related to the problems associated with effort limitation as a possible conservation measure.

### 11. Status of Commission Proposals

### a) For changes in the Convention

The 1970 Protocol Relating to Amendments to the Convention still requires ratification, approval or adherence by Romania.

### b) For international regulation of the fisheries

March 1972 proposals for 1972 catch quotas for herring (1) in Div. 5Z, (2) in Div. 5Y, (3) in Div. 4XW, and (4) for size limit for herring in Subarea 5 and part of Subarea 4 came into effect for all Contracting Governments on 17 September 1972.

June 1972 proposals (1) for phasing out the high seas salmon fishery by 1 January 1976 came into effect for all Contracting Governments on 23 December 1972. Proposals (2) to (19) for 1973 catch quotas for cod, American plaice, yellowtail flounder, silver hake, red hake and haddock; Proposal (20) for closed area for red and silver hakes in Subarea 5 in April 1973 and Proposals (21) and (22) for 130-mm mesh size in the codend only in Subareas 4 and 5, respectively, came into force, except in Div. 4X, for all Contracting Governments on 1 January 1973. Proposal (23) for a size limit for sea scallops in Div. 5Z came into effect for all Contracting Governments, except Canada and USA, on 29 March 1973.

January 1973 Proposals (1) to (7) for 1973 catch quotas on herring, other flounders, mackerel, pollock and redfish were transmitted to Contracting Governments on 15 February 1973 and require acceptance by Fed. Rep. Germany, Poland, and Romania to come into effect at an earlier date than that provided under the normal 6-month waiting procedure.

### 12. Total Allowable Catch Reports

### a) For salmon in 1972

The 1972 catch limit of Atlantic salmon from the West Greenland fishery was set at 2,210 tons, effective 23 December 1972. Provisional figures (to 31 March 1973) show that a total of 2,032 tons was caught in 1972.

### b) For haddock in 1972

In Div. 4W, bi-weekly reports of haddock catch by countries whose vessels were fishing in the Division showed a total of 3,141 tons caught in 1972, against a total allowable catch (TAC) of 4,000 tons as permitted by the 1971 proposal effective 1 January 1972. In Div. 4X, bi-weekly catch reports showed a total of 8,804 tons caught in 1972 against a TAC of 9,000 tons, with closure of the fishery on 10 October 1972. In Subarea 5, the bi-weekly catch reports showed a total of 6,330 tons caught in 1972 against a TAC of 6,000 tons, with closure of the fishery on 12 October 1972.

### c) For haddock in 1973

In Div. 4W, bi-weekly reports showed a total of 1,955 tons caught to 15 April 1973 against a TAC of 4,000 tons for 1973. In Div. 4X, bi-weekly reports showed a total of 4,821 tons caught to 15 April 1973 against a TAC of 9,000 tons for 1973. Further fishing was prohibited on 26 April 1973. In Subarea 5, bi-weekly reports showed a total of 933 tons caught to 15 April 1973 against a TAC of 6,000 tons for 1973.

### d) For yellowtail flounder in 1972

In Subarea 5 east of  $69^{\circ}W$ , bi-weekly reports showed a total of 15,561 tons caught against a TAC of 16,000 tons for 1972. In Subarea 5 west of  $69^{\circ}W$ , bi-weekly reports showed a total of 11,100 tons caught against a TAC of 10,000 tons for 1972 with closure of the fishery on 28 November 1972.

## 13. Implementation of Scheme of Joint Enforcement

From 1 July 1971, when application of the

Scheme began, to 30 June 1973, all Contracting Governments, except Bulgaria, Canada, Denmark, Iceland, Italy, Norway, Poland, Romania, Spain, and UK, are now participating fully in the Scheme. Circular letters have been distributed regularly from the Secretariat updating the status of implementation and reporting changes in inspection officers and vessels. The most recent status report is contained in Circular Letter 73/34 dated 9 May 1973.

## 14. Financial Matters

## a) Changes to annual payments to the Commission

In accordance with requirements of the 1972 Annual Meeting, the Executive Secretary solicited the views of Contracting Governments regarding a possible change from the present formula (Convention Article XI (3)) for calculating payments due from each Contracting Government under the annual administrative budget. Possible alternate formulae for calculating annual payments were presented to the 1973 Annual Meeting.

### b) Adjustment of pension credits

At the 1971 Annual Meeting, the Commission agreed to the adjustment of pension credits for service prior to 1 October 1966 to the salary base on that date (previously it had been 1 October 1960) at a single premium cost of \$1,136.05.

The International Fisheries Commissions Pension Society (IFCPS) has now proposed that the Commission upgrade pension credits for service from 1 October 1966 to 1 October 1969 at a single premium cost of \$2,025.92.

Further IFCPS proposes that the upgrading of service credits continue automatically each year in the future with the objective of reaching a position where, on retirement, the pension credits would be adjusted to provide a pension based on the average salary base for the best 6 years. An amount was budgeted for 1973-74 in the forecast increase primary to cover the cost.

### c) Annual pension increase for former employees

The IFCPS has proposed that the pension of any former employees be increased each year by 2%. The Commission would be billed automatically from the Sun Life Assurance Company. The Commission has no former employees receiving pension.

### d) Survivor benefits

The IFCPS has proposed a surviving spouse pension benefit. It recommends one which will provide for the payment of a survivor's pension equal to one-half of the employee's monthly retirement pension. Cost of this plan to the Commission would be about \$150 per year. An amount was budgeted for 1973-74 in the forecast increase budget to cover the cost.

### e) Employees termination benefit

The Commission will be asked to give consideration to providing recognition for its employees who do not receive any form of termination benefits. It has been noted that the Canadian Civil Servants receive severance pay and the US Civil Servants receive credit for unused sick leave to years of service on the retirement plan. Recently, the International Pacific Halibut Commission has approved a program whereby "Employees with 5 years or more service will be reimbursed on retirement or resignation for 25% of their accumulated sick leave. Payment shall be made at the rate of the annual salary at termination but shall not exceed 20% of the annual salary, e.g. \$2,000 maximum benefit for an employee receiving \$10,000 per year; \$4,000 maximum for a \$20,000 salary."

## 15. Financial Statements for the Fiscal Year Ending 30 June 1973

The accounts of the Commission for the year ending 30 June 1973 show that Can. \$150,425 was appropriated by the Commission for ordinary expenditures.

Obligations incurred during the fiscal year totalled Can. \$150,423, which was Can. \$2 less than the total appropriated by the Commission.

An audit of the Commission's finances was completed in August 1973 by the Office of the Auditor General of Canada, in accordance with the Commission's Financial Regulations. The report of the Auditor General reads, in part, as follows:

## EXHIBIT I

Statement of Budget Appropriations, Obligations Incurred, and Balances of Appropriations for the year ended 30 June 1973

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## (Expressed in Canadian Dollars)

Purposes of Appropriation	Appropriated by Commission	Obligations Incurred	Surplus or Deficit (–) Balances of Appropriations
GENERAL F	UND		
Personal services –			
Salaries	\$ 85,000	83,227	\$ 1,773
Salary contingencies	3,000	1,513	1,487
Forecast increase	6,000	5,207	793
Superannuation and Canada Pension Plan	1,800	1,795	5
Group medical and insurance plans	825	667	158
ravel	6,500	4,463	2,037
Fransportation	500	162	338
Communications ,	6,000	7,002	-1,002
Publications	12,000	10,944	1,056
Other contractual services	10,500	11,619	-1,119
Aaterials and supplies	5,000	4,507	493
Equipment	1,000	909	91
Annual and Mid-term meetings	10,000	18,408	-8,408
Contingencies	2,300		2,300
Totals, ordinary budget	\$ 150,425	\$ 150,423	\$2

1972 Seal Symposium	\$ 5,000	\$ 5,000	\$ 

## EXHIBIT II – GENERAL FUND

### Statement of Income and Expenditure for the year ended 30 June 1973 (with comparative figures for the year ended 30 June 1972)

### (Expressed in Canadian dollars)

		1973		1972
Income (and Source of Funds):				
Members' contributions assessed				
Canada	\$ 10,445		\$ 9,771	
Denmark	6,465		6.065	
France	8,455		7,918	
Germany, Federal Republic	8,455		7,918	
Iceland	2,484		2,359	
[taly	4,475		4,212	
Japan	6,465		6,065	
Norway	8,455		7,918	
Poland	10,445		9,771	
Portugal	8,455		7,918	
Romania	6,465		6,065	
Spain	10,445		7,918	
Union of Soviet Socialist Republics	10,445		9,771	
United Kingdom	6,465		6,065	
United States of America	6,465		6,065	
		<b>\$</b> 114,884		\$ 105,799
Transferred from Miscellaneous Fund		35,541		30,201
		\$ 150,425		\$ 136,000
Obligations incurred (Exhibit I)		150,423		129,369
Amount carried to Working Capital Fund (Appendix 2)		<b>\$</b> 2		\$ 6,631

## EXHIBIT III

Statement of Åssets and Liabilities as at 30 June 1973 (with comparative figures as at 30 June 1972)

### (Expressed in Canadian dollars)

Asset			Liabilities			
	1973	1972	1973	1972		
GENERAL FUND Cash on hand and in bank (Appendix 1) Accounts receivable	<b>\$</b> 7,110 555	\$ 6,465 516	Unliquidated obligations \$ 1,255 Credit due to Member Government 6,410	· · ·		
	\$ 7,665	<u>\$ 6,981</u>	\$ 7,665	\$ 6,981		
WORKING CAPITAL FUND           Cash on deposit           Certificates of deposit           Accrued interest           Accounts receivable	\$ 2,802 20,000 234 83	\$ 3,397 20,000 - 1,124	Principal of Fund (Appendix 2)	\$ 24,521		
	\$ 23,119	<b>\$</b> 24,521	\$ 23,119	\$ 24,521		
MISCELLANEOUS FUND Cash on deposit	<u>\$ 26,209</u>	<u>\$ 35,541</u>	Principal of Fund (Appendix 2)	\$ 35,541		

## **APPENDIX 1**

## General Fund Cash Flow for the year ended 30 June 1973

Cash on hand and in bank, 30 June 1972		\$ 6,465
Add: Member Government contributions – Assessments 1972/73	\$ 114,884	
Advance payment for 1973/74	6,410	
Less Advance payment for 1972/73	121,294 3,825	
Funds from Miscellaneous Fund for 1972/73 appropriations	117,469 35,541	
		153,010
		159,475
Deduct: Obligations liquidated -		,
Unliquidated obligations. 30 June 1972 \$ 2,656 Cancelled Handbook obligation transferred to		
Working Capital Fund (F.R. 3.2)		
	3,156	
Obligations incurred 1972/73	150,423	
	153,579	
Less: Unliquidated obligations, 30 June 1973	1,255	
	152,324	
Increase in accounts receivable	39	
transferred to Working Capital Fund	2	
		152,365
Cash on hand and in bank, 30 June 1973		\$ 7,100

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## **APPENDIX 2**

	APPENDIX 2		
WORKING	CAPITAL FUND		
Balance,	30 June 1972		\$ 24,521
Add:	Balances of 1972/73 appropriations	\$ 2	••
	Bank interest	2,172	
	Sales of publications	3,539	
	Interest on certificates of deposit	1,385	
	New Contracting Government – Bulgaria	1,000	
	Cancelled Handbook obligation (F.R. 3.2)	500	
		_	8,598
			33,119
Deduct:	Appropriated for Seal Symposium	5,000	00.117
Deudet.	Transfer to Miscellaneous Fund	5,000	
		_	10,000
Balance,	30 June 1973	_	\$ 23,119
MISCELLA	NEOUS FUND		
	30 June 1972		\$ 35,541
	iated for 1972/73 obligations		35,541
Abbroh		-	
Add:	Staff assessments 1972/73	\$ 14,843	
	Ex gratia grant – 1971 provincial income taxes	3,882	
	New Member contribution – Bulgaria	2,484	
	Transfer from Working Capital Fund	5,000	
		-	26,209
Balance,	30 June 1973		\$ 26.209
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# PART 2

# Report of a Special Meeting of the International Commission for the Northwest Atlantic Fisheries FAO, Rome, 16-26 January 1973

BY THE CHAIRMAN, MR K. LOKKEGAARD

### 1. Introduction

The Commission, at its Special Meeting on Herring January-February 1972, agreed to proposals for international catch quota regulation during 1972 of the fisheries for herring from the Georges Bank, Gulf of Maine, and Nova Scotia Bank stocks. One of the requirements of each proposal was that the Commission should establish total allowable catch and national allocation for 1973 for the three herring stocks at a special meeting in January 1973 (Annu. Proc. Vol. 22, 1971-72, p. 70-73).

In addition to consideration of catch quota regulations for the three herring stocks, Member Governments agreed to a US proposal to have the Special Meeting in January 1973 give urgent consideration to measures to reduce total fishing intensity, particularly in the southern portion of the Convention Area and in the region to the west and south (ICNAF Commissioners Document 73/3). In summary, the specifics of the US proposal to regulate fishing effort in the Georges Bank, Gulf of Maine region (Subarea 5) and the region to the west and south (Statistical Area 6) were:

- 1) That the reduction of fishing intensity required to obtain the maximum sustainable yield (MSY) is 25% below 1971.
- 2) USA proposes that the total allowable effort be expressed in terms of days on ground.
- 3) Taking into account the different principles of allocation discussed in this paper, the allowable fishing effort by countries for calendar year 1974 in terms of standardized US small otter trawler days on ground or its equivalent is as follows:

 Federal Republic of Germany (FRG)
 10,160

 Japan
 7,716

Poland
Romania
Spain
ÚSSR
Bulgaria
German Democratic Republic (GDR) 20,122

- 4) Furthermore, given the urgency of this situation, USA proposes that the total effort expended by each country listed in paragraph 3 above in the period 1 September to 31 December 1973 be one third of the figures listed in paragraph 3 above.
- 5) USA proposes that the existing regime of ICNAF conservation measures be maintained (individual species quotas, minimum mesh size regulation, closed areas, minimum fish sizes).
- 6) USA proposes that, should new entrants or non-members not mentioned in paragraph 3 above become a significant factor in the fishery, then adjustments should be made in the allocated effort similar to that which has been done with the catch quotas.
- 7) Fisheries developed specifically for invertebrates with gear not capable of capturing finfish are to be excluded from the total effort regulations proposed herein.

### 2. Time and Place of Meeting

The Special Meeting of the Commission – the second in its 23-year history – was convened at FAO, Rome, from 16-26 January 1973 inclusive, under the chairmanship of Mr K. Løkkegaard (Denmark). The First Plenary Session assigned Commission agenda items and heard the report of the Standing Committee on Research and Statistics (STACRES). Joint Meetings of Panels 4 and 5, and of an *ad hoc* Committee on Herring Quotas and their Allocation, both under the chairmanship of Dr A.W.H. Needler (Canada), considered the herring conservation items. The Standing Committee on Regulatory Measures (STACREM), under the chairmanship of Mr J. Graham (UK), considered the item dealing with measures to reduce total fishing effort in the Convention Area. The Final Plenary Session received all reports for consideration and approval.

The Standing Committee on Research and Statistics (STACRES) convened at FAO, Rome, on 15 January 1973 under the chairmanship of Dr A. S. Bogdanov (USSR) to consider the reports of its Assessments Subcommittee and the Herring Working Group which met during 8 to 14 January 1973, under the chairmanship of Mr D. J. Garrod (UK) and Mr T. D. Hes (Canada), respectively.

## **3.** Participants (Appendix I)

Commissioners and Advisers were present from all Member Countries, except Bulgaria and Italy. Observers were present from the European Economic Community (EEC), the International Council for the Exploration of the Sea (ICES), and the Food and Agriculture Organization of the United Nations (FAO).

### 4. Opening Session (Agenda Item 1)

The Meeting participants stood in a moment of silent tribute to Captain Tavares de Almeida, Portuguese Commissioner from 1952 to 1971 and Chairman of the Commission from 1955 to 1957, who died on 24 October 1972.

Mr F. E. Popper, Assistant Director General (Fisheries), FAO, welcomed the Commission on behalf of the Director General of FAO, as follows:

### "Mr Chairman, Gentlemen,

"It is with considerable pleasure that I welcome you for the second time to a Special Meeting of the Commission here in FAO Headquarters. Your meeting here last year was one of the most significant ever to be held by an international fisheries Commission. You reached agreement – though it is true with some difficulty and argument – on the limit on the total catch taken in some of the major fisheries in the ICNAF region, and also agreed on how this total catch would be divided between member countries. This considerable success was followed at the regular session of the Commission by similar agreements concerning many of the other important stocks of fish in the region. These agreements represented very considerable progress in the rational management of fish stocks, and have been watched with pleasure and appreciation by those of us who believe that the best use of the fishery resources of the ocean can be ensured if there is close co-operation between all nations with interests in those resources.

"However, these agreements by themselves do not guarantee the perfect management of the resources, and certain shortcomings of the current quota systems are the main reason for your session here today. They are set out in detail in papers before you and have also been examined by your Research and Statistics Committee, so I will not mention them in detail now. However, I should emphasize that the problems are not confined to the ICNAF region. Indeed, the problems of the rational management of a complex fishery operating on a wide range of different species occur even more forcefully in the tropical and sub-tropical regions of the world in which FAO is particularly closely concerned. Equally, the problems of excess fishing capacity, of highly mobile fleets, and of ensuring that the regulations agreed upon are not only obeyed, but seen by all participants to be obeyed, are of vital interest to FAO in relation to our responsibilities in many parts of the world. I and my staff will therefore be following your deliberations with great interest. I hope your session will prove another example of the ways in which close collaboration between our two organizations has been of mutual benefit. In this connection I note with pleasure that among the background documents mentioned in your annotated agenda, in addition to the Report of the Joint Bio-economics Working Group, in which FAO and ICNAF collaborated, is included a background document submitted by FAO staff to your Commission Meeting in 1970.

"We in FAO, in turn, hope to benefit from the results of your deliberations when we come to hold our Technical Conference on Fishery Management and Development in Vancouver, Canada, next month where, incidentally, I hope to see several of those in this room today. That Conference will, among other things, study, on a regional basis, the state of resources, of their exploitation, the management mechanism and requirements and perspectives for fishery development. One section will be devoted to the experience in the North Atlantic and out of the discussions as a whole we hope that there will emerge a better understanding of management problems world-wide as well as some guidance towards their solution. I am looking forward to your contribution to that - both as individuals and as a group.

"In conclusion, Mr Chairman, may I wish you all a pleasant stay in Rome, for however long it may prove necessary, and a successful conclusion to your discussion."

### 5. Agenda (Appendix II)

In accordance with Commission Rules of Procedure 4.2(b), the provisional agenda for the Special Commission Meeting was transmitted to all Contracting Governments and Commissioners, not less than 60 days in advance of the meeting. The agenda was adopted without change at the First Plenary Session.

## 6. Report of the Standing Committee on Research and Statistics (STACRES)

The Report of STACRES, with subcommittee and working group reports as appendices, is published as Section A of Part I of the ICNAF Redbook 1973. The Report was adopted by the Commission in Plenary Session on 16 January 1973. STACRES, the Assessments Subcommittee and the Herring Working Group dealt with the items of major importance which are summarized below:

### a) Assessments Subcommittee

The Assessments Subcommittee, in considering the US proposal to reduce total fishing effort in the Georges Bank, Gulf of Maine region (Subarea 5) and the region to the west and south (Statistical Area 6) (see Introduction), reviewed the general problems of the effective regulation of mixed fisheries to identify what form of management regime could overcome the difficulties created by the by-catch of regulated species in other fisheries for both regulated and unregulated species. It also reviewed the expansion of fishing in Subarea 5 and Statistical Area 6 and the current status of both the total resource and its individual components. This involved analysis of the interaction between fisheries for the separate resources and the development of an acceptable estimate of fishing directed to them, on a standardized basis that would permit comparisons to be made. The Subcommittee standardized the fishing effort to the days fished by US side otter trawlers in the 0-50 tonnage class, the average vessel comparabilities being used to judge the development of the fishery. Relationships between proposed management objectives for 1973 and the 1971 situation were calculated by making comparisons of the catch-per-day of different fleets on a monthly basis for 1971 only. The analysis of the species mixture, providing the estimate of fishing effort in particular fisheries and on particular species, show that the overlap between groundfish fisheries is considerable. The pelagic and semi-pelagic (silver hake) fisheries are more distinct, especially in Statistical Area 6, but nevertheless, they take a significant by-catch of groundfish species. The importance of mackerel and the tentative nature of the existing assessment of this species has influenced the precision of the conclusions that have been drawn in relating the 1973 situation to the level of exploitation in 1971.

In the light of the above considerations, the Subcommittee provided the following answers to Canadian questions (ICNAF Commissioners Document 73/4) which were based on the US proposal and which were posed to STACRES:

- Question 1: What was the magnitude of fishing intensity in 1971 and 1972 relative to that corresponding to or needed to produce the maximum sustainable yield of finfish?
- Answer: Subject to the qualification necessitated by lack of data on mackerel, three estimates of resource potential indicate the level of fishing intensity associated with the MSY of finfish resources to be 70-80% of the 1971 level.
- Question 2: What is the harvestable surplus yield for 1973 and the magnitude of fishing intensity required to produce it?
- Answer: Presuming mackerel catches in 1973 to be close to the 1971 level, the surplus yield as defined in the Assessments Subcommittee report is 846,000 tons, plus whatever catch is allowed for herring. The fishing intensity associated with this catch will be 80-100%, depending on the quota for herring.
- Question 3: What is the consequence over the next 3 years, 1973-1975, of maintaining the fishing intensity at the 1972 level?
- Answer: The effect of maintaining fishing intensity at the 1972 level varies between species owing to the different levels of exploitation and recruitment prospects, and so it can only be expressed in qualitative terms. For resources having average recruitment and already exploited at or beyond the level associated with the MSY, maintaining fishing intensity at the 1972 level does imply a reduction in the stock, catch, and catch-per-unit effort.
- Question 4: What is the consequence over the next 3 years, 1973-75, of maintaining the catch at the 1971 or 1972 level?
- Answer: Maintaining the catch at the 1972 level for stocks that are expected to decrease will necessitate an increase in effort and intensity present problems. For stocks that might increase, effort would need to decrease and need to divert to other species/areas.
- Question 5: What are the consequences of adjusting fishing intensities to the level corresponding to the

maximum sustainable yield in one or in more steps?

and

- Question 6: What is the time period required to bring catches back to the maximum level under the schemes considered in Question 5?
- Answer: The higher the initial change, the shorter the recovery period, but the adjustment should be sufficient to be detectable. For most stocks, recovery would be complete after 5 years.
- Question 7: What are the options for selection of units of effort for management purposes, evaluated in terms of efficiency in achieving regulation of fishing intensity?
- Answer: Days fished, monitored through days on grounds, would be the most efficient units for achieving regulation of fishing mortality in Subarea 5 and Statistical Area 6. A calculation is given in the Assessments Subcommittee report to illustrate the conversion of standard to national units.
- Question 8: What is the fishing intensity required to catch the quotas of fish established for 1973?
- Answer: A first approximation indicates the 1973 level of fishing required to catch the established quotas for regulated species to be 62% of the 1971 level.
- Question 9: Within the probable range of scientific estimates concerning the status of resources, how will variations in these estimates change the impact on the resources of regulatory decisions?
- Answer: If estimates are pessimistic, when the error is detected (after 2-3 years) and the regulation amended, both stocks and catches will be better than anticipated, but, if estimates are optimistic, the resources will have deteriorated by the time the error is detected.

In summary, the Subcommittee reported that, presuming the desirability of protecting mackerel, pending its precise evaluation and bearing in mind earlier assessments of other stocks, the conclusions presented are consistent with earlier advice. There seems to be no way in which freedom of fishing for mackerel could at the same time adequately conserve other regulated species (particularly herring). If a catch quota were to be put on mackerel, the exploitation of all finfish resources known to attract a major commercial fishery would be regulated by catch, and, since neither total catch nor total effort regulations by themselves solve the by-catch problem, the relative merits of the two approaches cannot be decided on scientific grounds. However, because this problem tends to generate over-exploitaion, total catch or total effort regulations taken alone would need to be set at a level below that necessary to achieve the estimated MSY of each stock that would obtain if they could be fished independently.

### b) Herring Working Group

The Herring Working Group, in response to questions addressed to it from the Special Commission Meeting on Herring, January-February 1972 (Annu. Proc. Vol. 22, 1971-72, p. 75) and from the present meeting, reported

- that the total herring catch in the ICNAF Area, including Statistical Area 6, declined from 747,000 tons in 1971 to about 548,000 tons in 1972, about 60% of the peak catch in 1968,
- 2) that it is impracticable to rely on closed areas and closed seasons to regulate the ICNAF herring fisheries, because the conservation effect depends critically on the behaviour of the fishing flects (which is not regulated) outside the closed areas and seasons,
- 3) that the 1972 catch quotas resulted in a decline of about 34% (by weight) at the beginning of 1973 in the Georges Bank spawning stock (240,000 to 158,000 tons), and in the Gulf of Maine spawning stock (70,000 to 50,000 tons),
- 4) that the effect of the minimum size limit of 9 inches introduced in 1972 for herring in part of Subareas 4 and 5 can not be estimated,
- 5) that, for the Georges Bank stock, if the 1970 year-class is as good as the 1966 year-class, the 1973 catch, equivalent to the maximum sustainable yield, would be 135,000 tons, giving a stock increase to the level at the beginning of 1972 (240,000 tons). However, if the 1970 year-class is only 75% as good as the 1966 year-class, the 1973 catch would be 115,000 tons, resulting in a stock level 85% of the stock size at the beginning of 1972 (204,000 tons). To regain the 1972 stock level of 240,000 tons,
- 6) that, for the Gulf of Maine stock, the 1973 catch, equivalent to the maximum sustainable yield, would be 27,500 tons for the higher level of recruitment and 24,500 tons for the lower level of recruitment,
- 7) that, for the Nova Scotia Bank stock, with good

recruitment expected from both the 1969 and 1970 year-classes in 1973, the 1973 catch level was suggested at 65,000 tons as for 1972.

## 7. Report of Joint Panels 4 and 5 (Items 5 and 6)

The Commission at its First Plenary Session, requested a Joint Meeting of Panels 4 and 5 to review the 1972 herring conservation measures and to consider 1973 conservation requirements for the three herring stocks in Subareas 4 and 5, including Statistical Area 6. Joint Meetings of Panels 4 and 5 were held daily from 16 to 18 January when a small ad hoc Committee on Herring Quotas and their Allocation, with representatives from Canada, Fed. Rep. Germany, Japan, Poland, USSR, and USA, was set up to expedite agreement on total allowable catch and national allocation for the three herring stocks for 1973. In addition, the Joint Meeting of Panels 4 and 5 received a recommendation from the meetings of the Standing Committee on Regulatory Measures (see Section 8) to consider the setting of total allowable catches and national catch quotas for 1973 for mackerel, pollock, redfish and flounders (except yellowtail).

The Reports of the Joint Meetings of Panels 4 and 5 and the *ad hoc* Committee were approved by a two-thirds majority vote by the Commission at the Final Plenary Session on 26 June 1973.

### a) Conservation of herring

Joint Meetings of Panels 4 and 5 were convened under the chairmanship of Dr A.W.H. Needler (Canada) with delegates from all Member Countries present. Proposals for 1973 total allowable catches from delegates ranged widely from 175,000 to 83,000 tons for the Georges Bank stock, 30,000 to 20,000 tons for the Gulf of Maine stock, and 90,000 to 65,000 tons for the Nova Scotia Bank stock. With disagreement resulting in deadlock, the Joint Panels set up a small ad hoc Committee on Herring Quotas and their Allocation, in an effort to expedite agreement on total allowable catches and their national allocation for the three herring stocks. Discussion in the ad hoc Committee resulted in the Herring Working Group of STACRES being asked to discuss analysis of existing data and assumptions which would provide stock size estimates for the Georges Bank and Gulf of Maine stocks at the end of 1974 under various assumptions as to the strength of the 1970 and 1971 year-classes.

While awaiting the report of the *ad hoc* meeting of herring scientists, Canada pointed out that it was difficult due to the many small Canadian vessels fishing herring to implement the requirement that not more than 10% by weight of herring less than 9 inches could be taken per vessel per year in Subarea 5 and parts of Div. 4X and 4W of Subarea 4. A Canadian proposal for change to a count of not more than 25% per trip per vessel was deferred for further study of the two methods and for consideration at the 1973 Annual Meeting.

The report of an *ad hoc* meeting of the Herring Working Group resulted in the ad hoc Committee recommending to the Joint Panels 4 and 5 the setting of objectives which would require rebuilding of the Georges Bank and Gulf of Maine stocks to the end of 1974 (beginning of 1975) to at least 225,000 tons and 60,000 tons, respectively. The ad hoc Committee further recommended to the Joint Panels the setting of allowable catches in 1973 at 150,000 tons (150,000 tons in 1972) and 25,000 tons (30,000 tons in 1972), respectively, which would be reduced in 1974 if scientific assessments indicated the objective could not be reached, and in any event, would not be increased unless the stocks reached a level which would provide their maximum sustainable yields of 250,000 tons and 110,000 tons, respectively, to the end of 1974. The ad hoc Committee also recommended to the Joint Panels that the total allowable catch for the Nova Scotia Bank stock in 1973 should be 90,000 tons (65,000 tons in 1972) as the stock was in good condition in 1972 with good recruitment expected in 1973 and that no commitment for 1974 was necessary. After considerable negotiation, the ad hoc Committee recommended to the Joint Panels, national allocation of the above total allowable catches for the Georges Bank, Gulf of Maine and Nova Scotia Bank stocks, taking into account the special needs of countries participating in the fisheries.

Following the receipt of the report of the *ad hoc* Committee on Herring Quotas and their Allocation, Panels 4 and 5, in joint session, recommended

"that the Commission transmit to the Depositary Government for joint action by the Contracting Governments, proposal (1) for international quota regulation of the fishery for herring from the Georges Bank stock; proposal (2) for international quota regulation of the fishery for herring in Division 5Y of Subarea 5; and proposal (3) for international quota regulation of the fishery for herring in Division 4X and part of Division 4W of Subarea 4" (Appendix III).

The Joint Panels 4 and 5 considered a US proposal to set the 1974 herring catch quotas at the 1973 Annual Meeting. Because of the possibility that adequate data would not be available for the scientific assessments by the time of the 1973 Annual Meeting and because no agreement could be reached on a plan of procedure, the Joint Panels agreed to further consideration of possible procedures at the 1973 Annual Meeting.

# b) Conservation of mackerel, pollock, redfish, and flounders, except yellowtail

The Joint Panels then considered a recommendation from STACREM to consider, as an interim measure. the establishment of total allowable catches and national catch quotas for 1973 for mackerel, pollock (including Division 4X of Subarea 4), redfish and flounders (except yellowtail) in Subarea 5 and Statistical Area 6. Total allowable catches proposed by a special meeting of the Assessments Subcommittee of STACRES of 50,000 tons for pollock in Div. 4X of Subarea 4 and Subarea 5, 30,000 tons for redfish in Subarea 5 and Statistical Area 6, 25,000 tons for flounders (except yellowtail) in Subarea 5 and Statistical Area 6 were unanimously accepted by the Joint Panels. Due to lack of adequate scientific data and in order to slow down the exploitation of a rapidly developing fishery for mackerel, the Joint Panels agreed to a pre-emptive total allowable catch for mackerel of 450,000 tons from Subarea 5 and Statistical Area 6. Following discussion of national allocation, a proposal to prorate the total allowable eatch for each of the four species against their 1971 catches, allowing a percentage for the coastal states and also for new entrants and non-member countries, was accepted without precedent. Following this proposal, Panels 4 and 5, in joint session, recommended

"that the Commission transmit to the Depositary Government for joint action by the Contracting Governments, proposal (4) for international quota regulation of the fishery for flounders other than yellowtail from the Southern New England stocks found in Subarea 5 and waters to the west and south; proposal (5) for international quota regulation of the fishery for mackerel from the Southern New England stock found in Subarea 5 and waters to the west and south; proposal (6) for international quota regulation of the fishery for pollock in Subarea 5 and Division 4X of Subarea 4; and proposal (7) for international quota regulation of the fishery for redfish in Subarea 5" (Appendix III).

### c) Resolution relating to conservation proposals

Further, Panels 4 and 5, in joint session, recommended that the Commission adopt the following resolution relating to the seven 1973 proposals for the conservation of herring, flounder, mackerel, pollock, and

### The Commission

Noting Article VI, paragraph 1; Article VIII, paragraph 2(a): Article IX, Article XII and Article XIII of the Convention, 1949,

Having Considered measures for the conservation of the stocks of herring, flounders<sup>1</sup>, mackerel, pollock, and redfish found in Subareas 4 and 5 of the Convention Area and having adopted seven proposals for the conservation of these stocks,

Being Aware that some stocks of herring. flounders, mackerel, pollock, and redfish found in Subarea 5 extend westward and southward into an area designated by the Commission as Statistical Area 6 and are exploited there,

Considering that some stocks are exploited within territorial waters and the measures which have been taken for their conservation by coastal states,

Noting that non-members of the Commission participate in the exploitation of the stocks of herring, flounders, mackerel, pollock and redfish in the Convention Area and Statistical Area 6,

Holding the View that measures for the conservation of the stocks shall be applied also to Statistical Area 6 and to the territorial waters of the coastal states, where part of the stocks are found,

Being Aware of the time period before the proposals referred to above may enter into effect pursuant to the provisions of Article VIII of the Convention as amended, the desirability of taking appropriate steps for the implementation of measures for the conservation of herring, flounders, mackerel, pollock and redfish prior to the effective date of the proposals referred to above and the desirability of reducing the time period before these proposals take effect,

- 1) Invites the attention of all Contracting Governments to the above matters,
- 2) Urges the coastal states to ensure that appropriate conservation measures are undertaken within territorial waters to protect the stocks and limit the catch,
- 3) Requests all Contracting Governments fishing for

<sup>&</sup>lt;sup>1</sup>Includes American plaice, Hippoglossoides platessoides (Fab.); summer flounder, Paralichthys dentatus (L.); winter flounder, Pseudopleuronectes americanus (Walb.); witch, Glyptocephalus cynoglossus (L.).

herring, flounders, mackerel, pollock, and redfish to anticipate the coming into effect of the above-mentioned proposals later in 1973 and to institute appropriate measures as soon as possible to ensure the effectiveness of the proposals when they become effective under the terms of the Convention,

- 4) Further Requests all Contracting Governments fishing the stocks of herring, flounders, mackerel, pollock and redfish found in Subarea 5 and Statistical Area 6 to ensure the effectiveness of the Commission's proposals for those stocks, either by further international agreements or on a national basis,
- 5) Calls on the Contracting Governments to invite the attention of non-members of the Commission fishing for herring, flounders, mackerel, pollock, and redfish in the above-mentioned areas to these matters, and
- 6) Urgently Requests all Contracting Governments to notify promptly, if possible before 15 April 1973, the Depositary Government of their acceptance of the above-mentioned proposals and their willingless to be bound by them at an earlier date than provided under the normal procedure.

### 8. Report of STACREM (Item 7)

The Standing Committee on Regulatory Measures (STACREM) met, under the chairmanship of Mr J. Graham (UK) at the request of the Plenary, to consider the technical questions raised in the US proposal for effort regulation in Subarea 5 and Statistical Area 6 (ICNAF Commissioners Document 73/3). Also available to STACREM was a general summary of the results of studies by the Assessments Subcommittee of the US proposal. STACREM noted that the total finfish resource in Subarea 5 and Statistical Area 6 was being overfished with marked declines in the total biomass. The effect of catch quotas introduced was to reduce the effort on regulated stocks which had then been diverted to other stocks in the areas. It was, therefore, necessary to reduce the overall effort to a level which the biomass could support. This could be done by regulating effort or catch or both. Because of the mixed fisheries problem, a total limit must be less than the sum of the limits for individual species. Lack of information about some stocks meant catch limits were difficult to estimate, whereas effort reduction could be estimated with some certainty. Restricting effort guaranteed reduction of fishing mortality, whereas the effect of catch quotas was heavily dependent on fluctuations in recruitment. Overall effort limitation would not mean

During discussion of the US proposal, the following points were made by members of STACREM:

- Effort limitation would not overcome the by-catch problem any better than catch limitation; and while effort limitation could take account of fluctuations in stocks, change in patterns of fishing could seriously distort its effect on fishing mortality. Moreover, there were not enough effort data over a period of years to provide an adequate historical basis and it would be unfair to allocate effort quotas between countries by reference to a single year.
- 2) If an effort limitation were introduced, it should apply to the whole Convention Area since otherwise, diversion of effort would create problems elsewhere.
- 3) There were some stocks, e.g. squid, saury, etc. in Subarea 5 and Statistical Area 6, which were not generally fished and were capable of further exploitation in which by-catches of regulated species would be quite insignificant.
- 4) With regard to enforcement, the existence of an overall effort limitation would not dispense with the need to enforce the species catch quotas, and the impressions formed by individual fishermen did not enable them to judge how effectively restrictions were being enforced.
- 5) An effort limit might prevent some countries from achieving their catch quotas.
- 6) The proposals on standardization presented many difficulties which required further study.
- 7) It was questionable whether effort restrictions could be fixed with any greater confidence than further catch quotas.

STACREM agreed that more detailed study of effort regulation was necessary and posed a list of ten questions to be considered along with related effort limitation matters by a special meeting of experts on effort limitation to be convened at the Northeast Fisheries Center, National Marine Fisheries Service, Woods Hole, Massachusetts at a date to be fixed at the end of March 1973 at the initiative of USA in consultation with Member Governments. In the meantime, STACREM felt, generally, that the adoption of catch quotas for additional species, possibly supplemented by an overall catch quota. offered the best immediate prospects of achieving, at least in part, the objectives of the US proposal. After considering estimates presented by the Assessments Subcommittee, STACREM recommended

tnat Panels 4 and 5 should, as an interim measure, consider the establishment of total allowable catches and national catch quotas for 1973 for stocks of mackerel, pollock (including Div. 4X of Subarea 4), redfish and flounders, except yellowtail, in Subarea 5 and Statistical Area 6, subject to review at the 1973 Annual Meeting" (see Section 7).

## 9. Statements by Observers

The Observer from the European Economic Community (EEC) addressed the meeting as follows:

"Mr Chairman,

"Thank you very much for giving me the floor in my eapacity as a representative of the European Community.

"You and your Commission know how much EEC is interested in the work of international organizations for fisheries and how much it is aware of the necessity to try to find the most efficient measures for conservation at the international level. In this respect, having looked very broadly at the measures concerning the limitation of fishing effort, we also think like many of the representatives who are present and as has been decided here, that such an important question requires a very careful examination, particularly in the light of the implementation of national quota allocations.

"In view of the introduction of national catch quotas for some species for the year 1973, I would like to refer to the statement made on behalf of the Community in Halifax on 4 June at the 1971 ICNAF Meeting – which I shall not repeat now – but to which I should like to add – the implementation of the common policy on fisheries may lead the Community to work out arrangements for Community management of its member-states quotas.

"Thank you."

The **Observer from ICES** drew attention to the active and useful cooperation and collaboration between ICES and ICNAF scientists.

The Observer from FAO expressed pleasure to have ICNAF again hold its Special Commission Meeting at FAO in Rome. He expressed FAO's great interest in the good work and rapid progress now being made by ICNAF and hoped that others would take note.

## 10. Acknowledgements and Adjournment

The Chairman of the Commission expressed sincere thanks to all for their efforts in providing solutions to difficult and delicate tasks. Special thanks were directed to Dr A.W.H. Needler (Canada), Chairman of the Joint Panels 4 and 5 and the ad hoc Committee on Herring Quotas and their Allocation, to Mr J. Graham (UK), Chairman of STACREM, to Dr A. S. Bogdanov (USSR), Chairman of STACRES, and to Messrs. D. J. Garrod (UK) and T. D. Iles (Canada), Chairman of the Assessments Subcommittee and Herring Working Group, respectively, for their excellent work. He expressed the Commission's gratitude to the US delegation for the considerable thought and effort put into introducing effort limitation as a measure of ensuring wise use of the Northwest Atlantic fish stocks. He thanked FAO for its cooperation, accommodation and hospitality. He informed the meeting participants that a press notice covering the proceedings of the meeting would be prepared and circulated (Appendix JV).

There being no other business, the Chairman declared the Special Commission Meeting adjourned at 1800 hrs, 26 January 1973.

# PART 2

# Appendix I List of Participants

(Head of Delegation in bold)

Chairman: Mr K. Løkkegaard, Ministry of Fisheries, Copenhagen, Denmark.

### **CANADA**

#### **Commissioners:**

Dr A. W. H. Needler, Huntsman Marine Laboratory, St. Andrews, New Brunswick.

Mr K. Henriksen, H. B. Nickerson & Sons Ltd., P.O. Box 130, North Sydney, Nova Scotia.

### Advisers:

Mr J. E. Creeper, Environment Canada, Fisheries Service, Maritimes Region, P.O. Box 550, Halifax, Nova Scotia.

Dr R. G. Halliday, Fisheries Research Board of Canada, Biological Station, St. Andrews, New Brunswick.

Mr T. D. Iles, Fisheries Research Board of Canada, Biological Station, St. Andrews, New Brunswick.

Mr D. A. MacLean, Environment Canada, Fisheries Service, P.O. Box 550, Halifax, Nova Scotia.

Mr D. A. MacLean, Jr, Black's Harbour, New Brunswick.

Dr F. D. McCracken, Atlantic Coast Fisheries Research Board Directors Committee, P.O. Box 159, Halifax, Nova Scotia.

Mr M. Matthews, Wilson's Beach, Campobello, New Brunswick.

Mr D. S. Miller, Fisheries Research Board of Canada, Biological Station, St. Andrews, New Brunswick.

Mr R. M. Pattullo, Sealife Fisheries Ltd., R.R. No. 1, P.O. Box 5, Lower East Pubnico, Nova Scotia.

Mr A. T. Pinhorn, Fisheries Research Board of Canada, Biological Station, St. John's, Newfoundland.

Dr M. P. Shepard, Environment Canada, Fisheries Service, Resource Management Branch, Fontaine Bldg., Ottawa, Ontario, K1A OH3.

Mr W. A. Titus, Westport, Digby County, Nova Scotia.

Mr E. B. Young, Environment Canada, International Fisheries Service, Sir Charles Tupper Bldg., Ottawa, Ontario, K1A OH3.

### DENMARK

### **Commissioners:**

Mr K. Løkkegaard, Ministry of Fisheries, Copenhagen. Mr E. Nolsøe, Minister of Fisheries of the Faroe Islands, Torshavn, Faroe Islands.

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Miss S. Campbell, FAO, Rome, Italy. Miss M. Piaser, FAO, Rome, Italy.

# PART 2 Appendix II Agenda

- 1. Opening.
- 2. Adoption of Agenda.
- 3. Election of Rapporteur.
- 4. Report from mid-term meetings of the Herring Working Group (Chairman: D. Iles), Assessments Subcommittee (Chairman: D. J. Garrod), and STACRES (Chairman: A. S. Bogdanov).
- 5. Review of present herring conservation measures.
- 6. Further conservation requirements for herring.
- 7. Consideration of measures to reduce total fishing effort in the Convention Area.
- 8. Other business.
- 9. Adjournment.

## PART 2

## Appendix III

# List of Conservation Proposals (7) from the Special Commission Meeting, January 1973

## (1) Proposal for International Quota Regulation of the Fishery for Herring from the Georges Bank Stock

Panel 5 recommends that the Commission transmit to the Depositary Government the following proposal for joint action by the Contracting Governments:

"1. That the Contracting Governments take appropriate action to regulate the catch of herring, *Clupea harengus* L., by persons under their jurisdiction fishing on the Georges Bank stock found in Division 5Z of Subarea 5 and in the adjacent waters to the west and south so that the aggregate catch of herring by vessels taking herring from this stock shall not exceed 150,000 metric tons in 1973.

"2. That Competent Authorities from each Contracting Government listed below shall limit in 1973 the catch of herring taken by persons under their jurisdiction to the amount listed from the above-mentioned stock:

Canada	5,050 metric tons
Federal Republic of Germany	31,600 metric tons
Tapan	
Poland	
Romania	1,300 metric tons
USSR	48,200 metric tons
USA	5,250 metric tons
Others	8,000 metric tons

"3. That each Contracting Government mentioned by name in paragraph 2 above shall promptly notify the Executive Secretary of the date in which its vessels have ceased a specialized fishery for herring. Each Contracting Government not mentioned by name in paragraph 2 above shall promptly notify the Executive Secretary if its vessels engage in a specialized fishery for herring, together if possible with an estimate of the projected catch. Each Contracting Government not mentioned by name in paragraph 2 above shall promptly notify the Executive Secretary if its vessels engage in a specialized fishery for herring, together if possible with an estimate of the projected catch. Each Contracting Government not mentioned by name in paragraph 2 above shall promptly notify the Executive Secretary of specialized or incidental catches of herring in increments of 100 tons. The Executive Secretary shall promptly inform all other Contracting Governments of such notifications. The Executive Secretary shall notify each Contracting Government of the date on which accumulated catch and estimated catch of herring, the quantity estimated to be taken before closure could be introduced, and the likely incidental catch for the remainder of the year equal 100 percent of the allowable catch designated as for "Others" in paragraph 2 above. Within 10 days of receipt of such notification from the Executive Secretary, each Contracting Government not mentioned by name in paragraph 2 above shall prohibit the catching of herring from the Georges Bank stock by persons under its jurisdiction, except for small incidental catches.

"4. That the Contracting Governments take appropriate action to ensure that all vessels under their jurisdiction which take herring, record their catches on a daily basis according to position, amount, date, type of gear, amount of effort, i.e., number of sets (or hooks)  $\times$  time gear on the botton (otter trawl) or fishing (midwater trawl, lines, other gear), discards and disposition of catch.

"5. That the Commission establish (a) the level of catch for 1974 which will result in the restoration of the adult stock to at least 225,000 metric tons by the end of 1974, it being understood that in any event the level of catch for 1974 will not be increased above that for 1973 unless the adult stock size at the end of 1973 has reached a level which will provide the maximum sustainable yield by the end of 1974, and (b) the allocation of that catch for 1974, both of which will be substituted for the catch and the allocation thereof in paragraphs 1 and 2 above, respectively.

"6. That the allocations in paragraph 2 above are without prejudice to future allocations of catches for this or other

stocks. Nothing in this proposal shall prejudice the future possibility of the Contracting Governments entering into mutual arrangements for the management of the allocations of herring catches or re-allocating the allocations of herring catches given in paragraph 2 above by such agreements as they may enter into, all such arrangements and re-allocations to be reported to all other Contracting Governments through the Executive Secretary.

"7. This proposal shall become effective only at such times as the herring quota proposals adopted 26 January 1973 by Panels 4 and 5 for Division 4X and part of Division 4W of Subarea 4 and Division 5Y of Subarea 5 become effective."

## (2) Proposal for International Quota Regulation of the Fishery for Herring in Division 5Y of Subarea 5

Panel 5 recommends that the Commission transmit to the Depositary Government the following proposal for joint action by the Contracting Governments:

"1. That the Contracting Governments take appropriate action to regulate the catch of herring, *Clupea harengus* L., by persons under their jurisdiction fishing on the stock found in Division 5Y of Subarea 5 so that the aggregate catch of herring by vessels taking herring from this stock shall not exceed 25,000 metric tons in 1973.

"2. That Competent Authorities from each Contracting Government listed below shall limit in 1973 the catch of herring taken by persons under their jurisdiction to the amount listed from the above-mentioned stock:

Canada	4,000 metric tons
Federal Republic of Germany	1,000 metric tons
USA	19,750 metric tons
Others	

"3. That each Contracting Government mentioned by name in paragraph 2 above shall promptly notify the Executive Secretary of the date on which its vessels have ceased a specialized fishery for herring. Each Contracting Government not mentioned by name in paragraph 2 above shall promptly notify the Executive Secretary if its vessels engage in a specialized fishery for herring, together if possible with an estimate of the projected catch. Each Contracting Government not mentioned by name in paragraph 2 above shall promptly notify the Executive Secretary if its vessels engage in a specialized fishery for herring, together if possible with an estimate of the projected catch. Each Contracting Government not mentioned by name in paragraph 2 above shall promptly notify the Executive Secretary shall promptly inform all other Contracting Governments of such notifications. The Executive Secretary shall notify each Contracting Government of the date on which accumulated catch and estimated catch of herring, the quantity estimated to be taken before closure could be introduced, and the likely incidental catch for the remainder of the year equal 100 percent of the allowable catch designated as for "Others" in paragraph 2 above. Within 10 days of receipt of such notification from the Executive Secretary, each Contracting Government not mentioned by name in paragraph 2 above shall prohibit the catching of herring in Division 5Y of Subarea 5 by persons under its jurisdiction, except for small incidental catches.

"4. That the Contracting Governments take appropriate action to ensure that all vessels under their jurisdiction which take herring, record their catches on a daily basis according to position, amount, date, type of gear, amount of effort, i.e., number of sets (or hooks) X time gear on the bottom (otter trawl) or fishing (midwater trawl, lines, other gear), discards and disposition of catch.

"5. That the Commission establish (a) the level of catch for 1974 which will result in the restoration of the adult stock to at least 60,000 metric tons by the end of 1974, it being understood that in any event the level of catch for 1974 will not be increased above that for 1973 unless the adult stock size at the end of 1973 has reached a level which will provide the maximum sustainable yield by the end of 1974, and (b) the allocation of that catch for 1974, both of which will be substituted for the catch and the allocation thereof in paragraphs 1 and 2 above, respectively.

"6. That the allocations in paragraph 2 above are without prejudice to future allocations of catches for this or other stocks. Nothing in this proposal shall prejudice the future possibility of the Contracting Governments entering into mutual arrangements for the management of the allocations of herring catches or re-allocating the allocations of herring catches given in paragraph 2 above by such agreements as they may enter into, all such arrangements and re-allocations to be reported to all other Contracting Governments through the Executive Secretary.

"7. This proposal shall become effective only at such times as the herring quota proposals adopted 26 January 1973 by Panels 4 and 5 for Division 4X and part of Division 4W of Subarea 4 and Division 5Z of Subarea 5 become effective."

## (3) Proposal for International Quota Regulation of the Fishery for Herring in Division 4X and Part of Division 4W of Subarea 4

Panel 4 recommends that the Commission transmit to the Depositary Government the following proposal for joint action by the Contracting Governments:

"1. That the Contracting Governments take appropriate action to regulate the catch of herring, *Clupea harengus* L., by persons under their jurisdiction fishing in that portion of Division 4W south of  $44^{\circ}52$ 'N latitude and in Division 4X of Subarea 4 so that the aggregate catch of herring by vessels taking such herring shall not exceed 90,000 metric tons in 1973.

"2. That Competent Authorities from each Contracting Government listed below shall limit in 1973 the catch of herring taken by persons under their jurisdiction to the amount listed from the above-mentioned stock:

Canada	
Japan	
USSR	
Others	600 metric tons

"3. That each Contracting Government mentioned by name in paragraph 2 above shall promptly notify the Executive Secretary of the date on which its vessels have ceased a specialized fishery for herring. Each Contracting Government not mentioned by name in paragraph 2 above shall promptly notify the Executive Secretary if its vessels engage in a specialized fishery for herring, together if possible with an estimate of the projected catch. Each Contracting Government not mentioned by name in paragraph 2 above shall promptly notify the Executive Secretary if its vessels engage in a specialized fishery for herring, together if possible with an estimate of the projected catch. Each Contracting Government not mentioned by name in paragraph 2 above shall promptly notify the Executive Secretary of specialized or incidental catches of herring in increments of 100 tons. The Executive Secretary shall promptly inform all other Contracting Governments of such notifications. The Executive Secretary shall notify each Contracting Government of the date on which accumulated catch and estimated catch of herring, the quantity estimated to be taken before closure could be introduced, and the likely incidental catch for the remainder of the year equal 100 percent of the allowable catch designated as for "Others" in paragraph 2 above. Within 10 days of receipt of such notification from the Executive Secretary, each Contracting Government not mentioned by name in paragraph 2 above shall prohibit the catching of herring in the area mentioned in paragraph 1 by persons under its jurisdiction, except for small incidental catches.

"4. That the Contracting Governments take appropriate action to ensure that all vessels under their jurisdiction which take herring, record their catches on a daily basis according to position, amount, date, type of gear, amount of effort, i.e., number of sets (or hooks)  $\times$  time gear on the bottom (otter trawl) or fishing (midwater trawl, lines, other gear), discards and disposition of catch.

"5. That the allocations in paragraph 2 above are without prejudice to future allocations of catches for this or other stocks. Nothing in this proposal shall prejudice the future possibility of the Contracting Governments entering into mutual arrangements for the management of the allocations of herring catches or re-allocating the allocations of herring catches given in paragraph 2 above by such agreements as they may enter into, all such arrangements and re-allocations to be reported to all other Contracting Governments through the Executive Secretary.

"6. This proposal shall become effective only at such times as the herring quota proposals adopted 26 January 1973 by Panel 5 for Divisions 5Y and 5Z of Subarea 5 become effective."

## (4) Proposal for International Quota Regulation of the Fishery for Flounders (except Yellowtail) from the Southern New England Stocks

Panel 5, having in mind the STACREM Report, recommends that the Commission transmit to the Depositary Government the following proposal for joint action by the Contracting Governments:

"1. That the Contracting Governments take appropriate action to regulate the catch of flounders<sup>1</sup> by persons under their jurisdiction fishing in the Southern New England stock found in Subarea 5 and in the adjacent waters to the west and south so that the aggregate catch of flounders by vessels taking flounders from this stock shall not exceed 25,000 metric tons in 1973.

"2. That Competent Authorities from each Contracting Government listed below shall limit in 1973 the catch of flounders taken by persons under their jurisdiction to the amount listed from the above-mentioned stock:

Canada	. 100 metric tons
Romania	. 500 metric tons
USSR	. 2,600 metric tons
JSA	. 21,700 metric tons
Others	. 100 metric tons

"3. That each Contracting Government mentioned by name in paragraph 2 above shall promptly notify the Executive Secretary of the date on which its vessels have ceased a specialized fishery for flounders. Each Contracting Government not mentioned by name in paragraph 2 above shall promptly notify the Executive Secretary if its vessels engage in a specialized fishery for flounders, together if possible with an estimate of the projected catch. Each Contracting Government not mentioned by name in paragraph 2 above shall promptly notify the Executive Secretary if its vessels engage in a specialized fishery for flounders, together if possible with an estimate of the projected catch. Each Contracting Government not mentioned by name in paragraph 2 above shall promptly notify the Executive Secretary of specialized or incidental catches of flounders in increments of 100 tons. The Executive Secretary shall promptly inform all other Contracting Governments of such notifications. The Executive Secretary shall notify each Contracting Government of the date on which accumulated catch and estimated catch of flounders, the quantity estimated to be taken before closure could be introduced, and the likely incidental catch for the remainder of the year equal 100 percent of the allowable catch designated as for "Others" in paragraph 2 above. Within 10 days of receipt of such notification from the Executive Secretary, each Contracting Government not mentioned by name in paragraph 2 above shall prohibit the catching of flounders from the Southern New England stock by persons under its jurisdiction, except for small incidental catches.

"4. That the Contracting Governments take appropriate action to ensure that all vessels under their jurisdiction which take flounders, record their catches on a daily basis according to position, amount, date, type of gear, amount of effort, i.e., number of sets (or hooks)  $\times$  time gear on the bottom (otter trawl) or fishing (midwater trawl, lines, other gear), discards and disposition of catch.

"5. That the allocations in paragraph 2 above are without prejudice to future allocations of catches for this or other stocks."

<sup>&</sup>lt;sup>1</sup>Includes American plaice, *Hippoglossoides platessoides* (Fab.); summer flounder, *Paralichthys dentatus* (L.); winter flounder, *Pseudopleuronectes americanus* (Walb.); witch, *Glyptocephalus cynoglossus* (L.).

## (5) Proposal for International Quota Regulation of the Fishery for Mackerel from the Southern New England Stock

Panel 5, having in mind the STACREM Report, recommends that the Commission transmit to the Depositary Government the following proposal for joint action by the Contracting Governments:

"1. That the Contracting Governments take appropriate action to regulate the catch of mackerel, Scomber scombrus L., by persons under their jurisdiction fishing in the Southern New England stock found in Subarea 5 and in the adjacent waters to the west and south so that the aggregate catch of mackerel by vessels taking mackerel from this stock shall not exceed 450,000 metric tons in 1973.

"2. That Competent Authorities from each Contracting Government listed below shall limit in 1973 the catch of mackerel taken by persons under their jurisdiction to the amount listed from the above-mentioned stock:

Bulgaria	33,000 metric tons
Canada	22,500 metric tons
Federal Republic of Germany	
Poland	130,000 metric tons
Romania	20,000 metric tons
USSR	148,000 metric tons
USA	26,200 metric tons
Others	66.800 metric tons

"3. That each Contracting Government mentioned by name in paragraph 2 above shall promptly notify the Executive Secretary of the date on which its vessels have ceased a specialized fishery for mackerel. Each Contracting Government not mentioned by name in paragraph 2 above shall promptly notify the Executive Secretary if its vessels engage in a specialized fishery for mackerel, together if possible with an estimate of the projected catch. Each Contracting Government not mentioned by name in paragraph 2 above shall promptly notify the Executive Secretary if its vessels engage in a specialized fishery for mackerel, together if possible with an estimate of the projected catch. Each Contracting Government not mentioned by name in paragraph 2 above shall promptly notify the Executive Secretary of specialized or incidental catches of mackerel in increments of 100 tons. The Executive Secretary shall promptly inform all other Contracting Governments of such notifications. The Executive Secretary shall notify each Contracting Government of the date on which accumulated catch and estimated catch of mackerel, the quantity estimated to be taken before closure could be introduced, and the likely incidental catch for the remainder of the year equal 100 percent of the allowable catch designated as for "Others" in paragraph 2 above. Within 10 days of receipt of such notification from the Executive Secretary, each Contracting Government not mentioned by name in paragraph 2 above shall prohibit the catching of mackerel from the Southern New England stock by persons under its jurisdiction, except for small incidental catches.

"4. That the Contracting Governments take appropriate action to ensure that all vessels under their jurisdiction which take mackerel, record their catches on a daily basis according to position, amount, date, type of gear, amount of effort, i.e., number of sets (or hooks)  $\times$  time gear on the bottom (otter trawl) or fishing (midwater trawl, lines, other gear), discards and disposition of catch.

"5. That the allocations in paragraph 2 above are without prejudice to future allocations of catches for this or other stocks."

## (6) Proposal for International Quota Regulation of the Fishery for Pollock in Subarea 5 and Division 4X of Subarea 4

Panels 4 and 5, having in mind the STACREM Report, recommend that the Commission transmit to the Depositary Government the following proposal for joint action by the Contracting Governments:

"1. That the Contracting Governments take appropriate action to regulate the catch of pollock, *Pollachius virens* (L.), by persons under their jurisdiction fishing in Subarea 5 and Division 4X of Subarea 4 so that the aggregate catch of pollock by vessels taking pollock from this stock shall not exceed 50,000 metric tons in 1973.

"2. That Competent Authorities from each Contracting Government listed below shall limit in 1973 the catch of pollock taken by persons under their jurisdiction to the amount listed from the above-mentioned stock:

Canada	21,760 metric tons
Federal Republic of Germany	
Spain	450 metric tons
USSR	2,970 metric tons
USA	11,275 metric tons
Others	12,420 metric tons

"3. That each Contracting Government mentioned by name in paragraph 2 above shall promptly notify the Executive Secretary of the date on which its vessels have ceased a specialized fishery for pollock. Each Contracting Government not mentioned by name in paragraph 2 above shall promptly notify the Executive Secretary if its vessels engage in a specialized fishery for pollock, together if possible with an estimate of the projected catch. Each Contracting Government not mentioned by name in paragraph 2 above shall promptly notify the Executive Secretary if its vessels engage in a specialized fishery for pollock, together if possible with an estimate of the projected catch. Each Contracting Government not mentioned by name in paragraph 2 above shall promptly notify the Executive Secretary of specialized or incidental catches of pollock in increments of 100 tons. The Executive Secretary shall promptly inform all other Contracting Governments of such notifications. The Executive Secretary shall notify each Contracting Government of the date on which accumulated catch and estimated catch of pollock, the quantity estimated to be taken before closure could be introduced, and the likely incidental catch for the remainder of the year equal 100 percent of the allowable catch designated as for "Others" in paragraph 2 above. Within 10 days of receipt of such notification from the Executive Secretary, each Contracting Government not mentioned by name in paragraph 2 above shall prohibit the catching of pollock in Subarea 5 and Division 4X of Subarea 4 by persons under its jurisdiction, except for small incidental catches.

"4. That the Contracting Governments take appropriate action to ensure that all vessels under their jurisdiction which take mackerel, record their catches on a daily basis according to position, amount, date, type of gear, amount of effort, i.e., number of sets (or hooks) X time gear on the bottom (otter trawl) or fishing (midwater trawl, lines, other gear), discards and disposition of catch.

"5. That the allocations in paragraph 2 above are without prejudice to future allocations of catches for this or other stocks."

# (7) Proposal for International Quota Regulation of the Fishery for Redfish in Subarea 5

Panel 5, having in mind the STACREM Report, recommends that the Commission transmit to the Depositary Government the following proposal for joint action by the Contracting Governments:

"1. That the Contracting Governments take appropriate action to regulate the catch of redfish, Sebastes marinus (L.), by persons under their jurisdiction fishing in Subarea 5 so that the aggregate catch of redfish by vessels taking redfish from this stock shall not exceed 30,000 metric tons in 1973.

"2. That Competent Authorities from each Contracting Government listed below shall limit in 1973 the catch of redfish taken by persons under their jurisdiction to the amount listed from the above-mentioned stock:

Canada	350 metric tons
Poland	100 metric tons
USSR	4,500 metric tons
USA	24,550 metric tons
Others	500 metric tons

"3. That each Contracting Government mentioned by name in paragraph 2 above shall promptly notify the Executive Secretary of the date on which its vessels have ceased a specialized fishery for redfish. Each Contracting Government not mentioned by name in paragraph 2 above shall promptly notify the Executive Secretary if its vessels engage in a specialized fishery for redfish, together if possible with an estimate of the projected catch. Each Contracting Government not mentioned by name in paragraph 2 above shall promptly notify the Executive Secretary if its vessels engage in a specialized fishery for redfish, together if possible with an estimate of the projected catch. Each Contracting Government not mentioned by name in paragraph 2 above shall promptly notify the Executive Secretary shall promptly inform all other Contracting Governments of such notifications. The Executive Secretary shall notify each Contracting Government of the date on which accumulated catch and estimated catch of redfish, the quantity estimated to be taken before closure could be introduced, and the likely incidental catch for the remainder of the year equal 100 percent of the allowable catch designated as for "Others" in paragraph 2 above. Within 10 days of receipt of such notification from the Executive Secretary, each Contracting Government not mentioned by name in paragraph 2 above shall prohibit the catching of redfish in Subarea 5 by persons under its jurisdiction, except for small incidental catches.

"4. That the Contracting Governments take appropriate action to ensure that all vessels under their jurisdiction which take redfish, record their catches on a daily basis according to position, amount, date, type of gear, amount of effort, i.e., number of sets (or hooks)  $\times$  time gear on the bottom (otter trawl) or fishing (midwater trawl, lines, other gear), discards and disposition of catch.

# PART 2 Appendix IV

# Special Commission Meeting – January 1973 Press Notice

1. A second extraordinary meeting of the International Commission for the Northwest Atlantic Fisheries (ICNAF) considered the current status of the herring stocks on the Nova Scotia Bank, in the Gulf of Maine, and on Georges Bank and areas to the west and south following the application of national catch quotas on these stocks as conservation measures for the year 1972. The meeting also considered the possibility for limitation of the increasing amount of fishing effort being applied on the commercial fish stocks in the southern part of the Northwest Atlantic area.

2. The Special Meeting was held by courtesy of the Department of Fisheries of the Food and Agriculture Organization of the United Nations in Rome, Italy, from 16 to 26 January 1973, under the chairmanship of Mr K. Løkkegaard (Denmark). Delegates from all Member Countries, except Bulgaria and Italy, were present. The sixteen Member Countries are Bulgaria, Canada, Denmark, France, Federal Republic of Germany, Iceland, Italy, Japan, Norway, Poland, Portugal, Romania, Spain, USSR, UK, and USA. Observers represented the Food and Agriculture Organization, the Commission of the European Economic Community and the International Council for the Exploration of the Sea.

3. The Special Meeting was preceded by meetings of the Commission's Standing Committee on Research and Statistics from 8 to 15 January 1973.

4. After considering the reports of the scientific meetings and other relevant economic and technical information, the Commission agreed to recommend to the Member Countries measures to conserve the herring stocks by limiting the total catch of herring during 1973 from the Georges Bank stock to 150,000 tons (the same amount allowed in 1972), from the Gulf of Maine stock to 25,000 tons (5,000 tons less than for 1972), and from the Nova Scotia Banks stock to 90,000 tons (25,000 tons more than for 1972). The Commission also agreed to recommend to Member Countries catch quota allocations of the 1973 total catch quotas for each Member Country fishing on each of the three stocks of herring.

5. The Commission's Standing Committee on Research and Statistics under the chairmanship of Dr A. S. Bogdanov (USSR) and the Standing Committee on Regulatory Measures under the chairmanship of Mr J. Graham (UK) conducted thorough studies of a US proposal to limit the amount of fishing effort as a further conservation measure for the commercial fish stocks in the southern part of the Northwest Atlantic. Following considerable discussion, the Commission agreed to refer the many scientific, economic and technical problems involved in effort regulation for future detailed study to a meeting of scientific and technical experts to be convened at the National Marine Fisheries Centre, Woods Hole, Massachusetts or at the Commission offices, Dartmouth, Nova Scotia in late March or early April 1973.

6. Further and pending further consideration of effort limitation at its Annual Meeting in June 1973, the Commission agreed, as an interim measure, to recommend for 1973 measures to conserve the currently unregulated fish species by limiting their total catches as follows:

Mackerel from the Gulf of Maine, Georges Bank and to the west and south to 450,000 tons

Pollock from the Gulf of Maine, Georges Bank, and off southwestern Nova Scotia to 50,000 tons

Redfish from the Gulf of Maine and Georges Bank to 30,000 tons

Flounders (except yellowtail) from the Gulf of Maine, Georges Bank and to the west and south to 25,000 tons.

The Commission also agreed to recommend catch quota allocations of these 1973 total catch quotas for each Member Country fishing on the stocks making up these commercial species.

7. The Commission adopted a resolution urging Member Countries whose fleets fish the stocks of species which migrate between Georges Bank and the area to the west and south outside the Commission's jurisdiction (ICNAF Statistical Area 6) and for which catch quotas were recommended for 1973 to institute appropriate measures to regulate their fisheries in Statistical Area 6 to ensure the effectiveness of the Commission's proposals for these stocks either by further international agreements or on a national basis.

8. The Commission urged Member Countries to accept or ratify the Commission's seven conservation proposals for herring, mackerel, pollock, redfish and flounders other than yellowtail as soon as possible in order to shorten the six-month period normally required for the proposals to come into force for 1973.

9. The 1973 Annual Meeting of the Commission will be held at the World Health Organization Building in Copenhagen, Denmark from 5 to 15 June 1973 under the chairmanship of Mr K. Løkkegaard (Denmark). Meetings of the Commission's Standing Committee on Research and Statistics will meet for a preceding period of a week or more.

Office of the Commission Dartmouth, Nova Scotia, 27 January 1973.

# Report of the 23rd Annual Meeting of the

# International Commission for the Northwest Atlantic Fisheries, Copenhagen, Denmark, 5-16 June 1973

BY THE CHAIRMAN, MR K. LØKKEGAARD

#### 1. Introduction

Under the terms of a Convention signed in 1949, the International Commission for the Northwest Atlantic Fisheries (ICNAF) is responsible for the investigation, protection and conservation of the fisheries of the Northwest Atlantic in order to make possible the maintenance of a maximum sustained catch from these fisheries. Based on the results of scientific investigations, promoted and coordinated by the Commission, and on economic and technical considerations, measures to achieve the optimum utilization of the stocks of those species of fish which support international fisheries in the Convention Area are recommended to the 16 Contracting Governments.

The Commission has six panels, five of which review the fisheries and recommend conservation measures in geographic subareas of the Convention Area (Subarea 1, off West Greenland; Subarea 2, off Labrador; Subarea 3, off East and South Newfoundland; Subarea 4, the Gulf of St. Lawrence and Nova Scotia banks; and Subarea 5, the Gulf of Maine). The sixth panel has jurisdiction respecting harp and hood seals in the Convention Area.

The Commission has Standing Committees on Research and Statistics (STACRES), on Finance and Administration (STACFAD), on Regulatory Measures (STACREM), and on International Control (STACTIC).

#### 2. Time and Place of Meeting

The 23rd Annual Meeting of ICNAF was convened in the Main Conference Hall of the World Health Organization, Scherfigsvej, Copenhagen, Denmark from 5 to 16 June 1973, under the chairmanship of Mr K. Løkkegaard (Denmark).

Earlier, from 16 to 27 January 1973, the Commission held its second Special Meeting at FAO, Rome, to consider conservation measures for herring stocks in the Northwest Atlantic and to consider measures to reduce total fishing effort in the Convention Area. The Report of the Special Meeting (see Part 2 herein) was adopted by the 23rd Annual Meeting of the Commission in Plenary Session on 14 June 1973.

The ICES/ICNAF Joint Working Group on North Atlantic Salmon met at Copenhagen from 19 to 23 March 1973 under Mr B. B. Parrish (UK).

A Special Meeting of Experts on Effort Limitation was held from 26 to 30 March 1973 at Woods Hole, Massachusetts, at the request of the Standing Committee on Regulatory Measures (STACREM) to study effort limitation schemes and details of effort regulations. A report (ICNAF Summary Document 73/5) was presented to STACREM at the 23rd Annual Meeting.

The Commission's Standing Committee on Research and Statistics (STACRES) met from 22 May to 2 June and on 14 June 1973 under the chairmanship of Dr A. S. Bogdanov (USSR). The Assessments Subcommittee met from 22 to 29 May under Mr D. J. Garrod (UK), the Statistics and Sampling Subcommittee from 30 May to 1 June under Mr V. M. Hodder (ICNAF), and the Environmental Subcommittee on 31 May and 1 June under Dr N. J. Campbell (Canada).

Scientific Advisers to each of Panels 1 to 5 and Panel A (Seals) met on 2 and 3 June 1973.

From 5 to 16 June, Commission agenda items were considered by the Plenary or assigned to Committees and Panels for consideration and reporting. In addition, reports and recommendations from STACRES, STACFAD, STACTIC, and STACREM, Panels 1 to 5, joint Panels 1 to 5, 2 and 3, and 4 and 5 were received at the Second and Third Plenary Sessions of the Commission for approval.

#### 3. Participants (Appendix I)

Commissioners and their Advisers and Experts were present from all 16 Member Countries. Observers attended from the Food and Agriculture Organization of the United Nations (FAO), the International Council for the Exploration of the Sea (ICES), the International Commission for the South-East Atlantic Fisheries (ICSEAF), the European Economic Community (EEC), the Organization for Economic Co-operation and Development (OECD), and the Governments of Cuba and the German Democratic Republic (GDR). Participants are at Appendix I. The organization and officers of the Commission for the year 1973/74 are recorded on the inside front cover of the Report.

Missing from the 23rd Annual Meeting list of participants are two highly-respected friends and colleagues. Captain Tavares de Almeida died on 24 October 1972. He served Portugal and ICNAF with great devotion and distinction as the Portuguese Commissioner from 1951 to 1971 when ill health forced him to retire. He was Chairman of the Commission from 1955 to 1957. Mr William M. Terry died accidentally on 6 May 1973. His wisdom, persuasiveness, and persistence ensured sound advice to the US Government on ICNAF matters from 1952 and as head of the US delegation to ICNAF from 1971.

#### 4. Opening Session (Agenda Item 1)

The Ceremonial Opening of the 23rd Annual Meeting of the Commission was convened in the Main Conference Hall of the World Health Organization, Scherfigsvej, Copenhagen, Denmark, at 1000 hrs on 5 June 1973. The Chairman of the Commission welcomed the Commissioners, Advisers, Observers and Guests and introduced Mr Chv. Thomsen, Minister of Fisheries for Denmark, who addressed the meeting on behalf of the Government of Denmark as follows:

"It is a great pleasure for me that it has been possible for us to arrange for the Commission's Annual Meeting here in Copenhagen and I bid you all a hearty welcome.

"As you will probably know, Denmark has been a Member of the Commission from its very beginning and has during its existence taken great interest in its work to which we have tried to contribute to the best of our ability. The waters of ICNAF are far away from Copenhagen, but the conditions of the fisheries in the Convention Area are of the utmost importance to both Greenland, Faroese and Danish fishing industries. "I shall try to avoid – what can perhaps sometimes be difficult in a situation like this – to succumb to the temptation of underlining our own problems and our specific need for action by ICNAF.

"Seen from an international viewpoint, however, action is needed in organizations like yours in a spirit of cooperation and almost always of compromise to find ways and means for the management of fisheries under the threat of overfishing — sometimes also under an influence of problems in other fields of activity than fisheries.

"It is correct – when stated – that the Commission has not so far been able to solve all the problems facing international fisheries in the ICNAF Area but it is not fair to blame ICNAF for this fact. Compared with other fields of international cooperation ICNAF has achieved much in my opinion.

"It has been encouraging to see the resoluteness with which, during the last two years, the Commission has used its powers to institute new and more effective measures. The development within fisheries has created a difficult job for ICNAF the latest years but I feel convinced that ICNAF will be equal to the task and I sincerely hope that exaggerated expectations to its possibilities will not destroy the good results it can achieve."

The Chairman thanked the Minister for his words of confidence in the ability of ICNAF to deal with fisheries within the Convention Area and continued as follows:

"We meet from outside and within the Commission, heavy and impatient criticism as to the results or rather the lack of results achieved.

"In my opening speech last year in Washington, I tried to outbalance to a certain extent such a criticism by referring to the great number of regulatory measures introduced by the Commission since December 1971 when sufficient powers were given to the Commission. I did so, feeling that in that short period ICNAF had overcome more than anybody could or should expect it possible for an international organization. I meant so not only relatively – but also absolutely.

"I did not mean, however, that anything ideal was achieved – I think we all realize that an overwhelming burden of unsolved problems is still on our shoulders.

"Almost day by day this burden is increasing due to technical, political and economic factors in the individual countries and in the relationship between the countries. We are, in fact, facing not only – what would be more than sufficient – problems of overfishing in international waters – we have to cope with pronounced or unpronounced principles of Member Countries and even countries outside the "family" regarding not only fisheries but other activities in the sea(s).

"For more than a year the United Nations have been preparing the Conference of the Law of the Sea. It has now been scheduled to start in November this year. Nobody knows what will be the result of the Conference though some countries seem to have anticipated it. It has, however, already been lying over this organization and others like a cloud of uncertainty and doubt. The fear of prejudicing a standpoint in that Conference or the wish to justify a standpoint there has heavily influenced the discussions in our Commission.

"I have a strong belief in the necessity of international cooperation in general and international cooperation in fisheries in particular. Whatever the result of the Law of the Sea Conference, ICNAF and other organizations like it, will have a role to play if the world does not want to return to conditions which history should prevent it from returning to.

"The set up — the competence or the powers given to the Commission might be altered and to my mind, there is no doubt that they must be altered in order to act in a satisfactory way — but ICNAF must continue.

"I should be the last to recommend ICNAF to close their eyes and ears to the world and to evade the obstacles – but I appeal to all Member Countries of this Commission to do the work we have before us without undue influence from factors like fear or prejudice – feeling of defeat.

"We have an important job to do - it should be done in the spirit which has up to now been characteristic of this Commission: the spirit of compromise. It might be only a step towards the goal - but anyway better than defeat."

The Chairman then declared the 23rd Annual Meeting of the Commission recessed to 1100 hrs.

Following the opening ceremonies, the First Plenary Session was convened by the Chairman who welcomed the representatives from the Commission's 16th Member – Bulgaria. Head of the Bulgarian delegation, Mr D. Nedev, responded as follows: "Allow me, on behalf of the Government of the People's Republic of Bulgaria and on my behalf, as General Manager of the Bulgarian State Fisheries to express our gratitude for the words of welcome, extended to my country on the occasion of the acceptance of Bulgaria as a Member of the International Commission for the Northwest Atlantic Fisheries.

"We regard with deep esteem fishery traditions, which have been formed in the course of centuries in this important fishing region of the World Ocean. We know at the same time that many countries have made brave efforts to clarify the possibilities for fishing in the tremendous area of the Convention. Their experience and knowledge are highly regarded in our country.

"The Bulgarian ocean fishery has been developed in the last ten years. For its successful development the example of a number of other countries, which had for many years before us gathered experience in the difficult way towards utilization of biological resources in the World Ocean was very important.

"With the rapid technical progress of world fisheries the question of careful and rational exploitation of fishery stock has become especially important. In this connection, the cooperation between fishing states plays an important part.

"Therefore, having become a Member of the International Commission for the Northwest Atlantic Fisheries, I wish to declare that my country will observe the principles and abide by the spirit of the Convention, corresponding to the objective necessity of international cooperation in the sphere of fisheries.

"I would like to add that, within our possibilities, we shall make efforts to contribute to the investigation of the complicated biological problems in the Convention Area.

"These studies will be submitted to the requirements for ensuring reasonable use of the resources in the waters of the Northwest Atlantic."

The Plenary stood in silent tribute to the memory of Mr William M. Terry, former head of the US delegation to ICNAF.

Second and Third Plenary Sessions were convened on 14 and 16 June. Between 22 May and 16 June inclusive, the following business of the Commission was concluded.

## 5. Agenda (Appendix II)

In accordance with Commission Rules of Procedure 4.2 (b), a provisional agenda for the Annual Meeting was transmitted to all Contracting Governments and Commissioners not less than 60 days in advance of the meeting. The agenda was adopted at the First Plenary Session on 5 June.

# 6. Publicity (Agenda Item 3)

In accordance with past practice, the Commission appointed the Chairman and Vice-Chairman, with the Chariman of STACFAD and the Executive Secretary. to a committee to determine policy regarding publicity.

A press release covering the major items of interest and importance from the meeting is at Appendix IV.

## 7. Report of STACFAD (Agenda ltem 37)

The Standing Committee on Finance and Administration (STACFAD) met on 14 June to consider financial and administrative items from its agenda and assigned from the Plenary agenda (Items 4-11 and 42). The Report and recommendations of STACFAD were presented to the Final Plenary Session on 16 June 1973.

#### a) Panel memberships

As required by Article IV (2) of the Convention, panel memberships were reviewed. Application by Bulgaria for membership in Panel 5. effective 1 July 1973, was approved by Panel 5 and STACFAD and adopted by the Commission. Panel memberships for 1973/74 total 55 and are distributed among the 16 Member Countries as follows:

Panel	1	2	3	4	5	Α	Total
Bulgaría					+		1
Canada		+	+	+	+	+	5
Denmark	+		ŧ			+	3
France	+	+	+	4			4
Germany,							
Fed. Rep.	+	+		+	+		4
Iceland	+						1
Italy			+	+			2
Japan			+	+	+		3
Norway	+	+	+			+	4
Poland	+	+	+	+	+		5
Portugal	+	+	+	+			4
Romania		+	+		+		3
Spain	+	+	+	÷	+		5
USSR	+	+	+	+	+		5
UK	+	+	+				3
USA			+	+	+		3
TOTAL	10	10	13	10	9	3	55

# b) Reports by the Secretariat

The Executive Secretary presented the following reports on administrative and financial matters:

- Auditor's Report for the fiscal year ending 30 June 1972 (Annu. Proc. Vol. 22, for the year 1971-72, p. 11-15);
- ii) Administrative and Financial Report for the fiscal year ending 30 June 1973 (estimated from 1 May 1973) (Comm.Doc. 73/10);
- iii) Budget estimate for the fiscal year ending 30 June 1974 (Appendix I to the 1973 STACFAD agenda);
- iv) Budget forecast for the fiscal year ending 30 June 1975 (Appendix II to the 1973 STACFAD agenda).

#### c) Recommendations on finance and administration

The Commission adopted the following recommendations:

- i) that the Auditor's Report showing appropriations of Can \$136.000 and obligations incurred of Can \$129,369 for the fiscal year ending 30 June 1972 be adopted:
- ii) that the provisional Administrative Report with the financial statements for the fiscal year ending 30 June 1973 (estimated from 1 May 1973) be adopted:
- iii) that the Commission approve proposals of the International Fisheries Commissions Pension Society (IFCPS) – (a) to upgrade pension credits for service from 1 October 1966 to 1 October 1969 with automatic upgrading on an annual basis in future years, (b) to upgrade pensions of former employees by 2% each year, and (c) to provide for surviving spouse pension benefit equal to one-half of the former employee's monthly retirement pension upon the death of the former employee;
- iv) that the Commission recommend to Contracting Governments that the basic portion of the annual payment be changed from US \$500 to 15% of the ordinary annual budget of the Commission, and that the Depositary Government be requested to prepare an appropriate amendment to Article XI of the Convention for subsequent approval by Contracting Governments, bearing in mind that the form of the amendment would be

different depending on whether it is formulated before or after the 1970 Protocol on Amendments enters into force following ratification by one more Contracting Government;

- v) that the Federal Republic of Germany replace Denmark as a member of STACFAD;
- vi) that the title of the Commission publication "Annual Proceedings" be changed to "Annual Report";
- vii) that Can \$5,000 be declared in excess of the present and anticipated needs in the Working Capital Fund and that it be transferred immediately to the Miscellaneous Fund in accordance with Financial Regulation 4.7;
- viii) that the Commission appropriate a sum of Can \$171,000 from Contracting Governments and from the Miscellaneous Fund to meet ordinary expenses and Can \$5,000 from the Working Capital Fund to support the ICES/FAO/ICNAF Symposium on Acoustic Methods in Fisheries Research, Bergen, 19-22 June 1973, for the fiscal year ending 30 June 1974, the appropriations to be used for the following purposes:

#### 1. Personal Services

	Total Ordinary Expenditures	\$]	71,000
10.	Contingencies		4,000
9.	Annual and Mid-Year Meetings		12,500
8.	Equipment		1,000
7.	Materials and Supplies		6,000
6.	Other Contractual Services		15,000
5.	Publications		13,000
4.	Communications		7,500
3.	Transportation		1,000
2.	Travel		7,000
	f) Forecast increase		2,500
	e) Contingencies		4,500
	d) Group medical and insurance plans		1,000
	c) Additional help		1,300
	b) Superannuation		2,200
	a) Salaries	\$	92,500

i) Transfer to Miscellaneous Fund ......\$ 5,000
ii) Acoustic Symposium, June 1973 ..... 5,000

ix) that the Contracting Governments be billed by the Commission for payments due under the 1973/74 administrative budget, in accordance with Article XI of the Convention, on 15 August 1973. x) that the Contracting Governments give consideration at the 1974 Annual Meeting to authorizing appropriations of Can \$183,000 for the ordinary expenses of the Commission and Can \$5,000, subject to a further recommendation of STACFAD at the next Mid-Term Meeting, from the Working Capital Fund to support publication of the history of research and management in the Northwest Atlantic, for the fiscal year ending 30 June 1975, the appropriations to be used for the following purposes:

1.	Personal Services	
	a) Salaries	\$95,000
	b) Superannuation	2,500
	c) Additional help	1,300
	d) Group medical and insurance plans	1,200
	e) Contingencies	5,000
	f) Forecast increases	·
2.	Travel	7,000
3.	Transportation	1,000
4.	Communications	8,000
5.	Publications	14,000
6.	Other Contractual Services	15,000
7.	Materials and Supplies	6,000
8.	Equipment	2,000
9.	Annual and Mid-Year Meetings	15,000
10.	Contingencies	10,000
	Total Ordinary Expenditures	\$183,000

<sup>a</sup>Subject to a further recommendation of STACFAD at the next Mid-Term Meeting.

- xi) that the 1974 Annual Meeting of the Commission be held at Halifax, Canada, 4-15 June 1974 and that, if no invitation is extended, the 1975 and 1976 Annual Meetings be held at the Commission Headquarters at a date to be agreed later;
- xii) that the Commission consider setting the second week of June as the normal time for commencing Annual Meetings as from 1975;
- xiii) that the Commission note the election of Mr. E. B. Young (Canada) as Chairman of STACFAD for 1973/74.

# 8. Status of Commission Proposals (Agenda Item 12)

for changes in the Convention and for international regulation of the fisheries.

#### a) Changes in the Convention

The Commission noted that the 1970 Protocol relating to quicker and smoother working procedures for amending the Convention still required ratification by Romania before it could enter into force.

#### b) International regulation of the fisheries

The Commission noted that the March 1972 herring proposals (Annu. Proc. Vol. 22, 1971-72, p. 70-74) for a national catch quota on the Georges Bank, Gulf of Maine and Nova Scotia Banks stocks and for a 9-inch size limit in Subarca 5 and part of Subarea 4, in spite of a resolution requesting acceptance by 15 April 1972, came into force for the 1972 calendar year only on 17 September 1972 under the normal 6-month waiting procedure (International Convention for the Northwest Atlantic Fisheries, Article VIII, paragraph 7).

The Commission noted that the proposal from the 1972 Annual Meeting for phasing out offshore Atlantic salmon catches by 1 January 1976 came into force on 23 December 1972. Further proposals for catch quotas on cod in Div. 2J-3KL, Subdiv. 3Ps, Div. 3NO, Subdiv. 4Vs and Div. 4W, Div. 5Y, and Subdiv. 5Ze and 5Zw; on American plaice in Div. 3LNO; on yellowtail in Div. 3LNO, Subarea 5 east of 69°W, and Subarea 5 west of 69°W; on silver hake in Div. 5Y, Subdiv. 5Ze, and Subdiv. 5Zw; on red hake in Subdiv. 5Zw; on haddock in Subarea 5, Div. 4X and 4W, including closed areas for both; and for closed area on red and silver hake in Subarea 5 all came into force for the 1973 calendar year on 1 January 1973. Also proposals for mesh size increase to 130 mm in Subarea 4 and Subarea 5 came into force on 1 January 1973, to become operative 1 January 1974 except in Div. 4X. A proposal for size limit on sea scallops in Div. 5Z came into force for all Contracting Governments, except Canada and USA, on 29 March 1973.

The Commission also noted that January 1973 proposals (see Part 2) for catch quotas on herring in Div. 5Z, Div. 5Y, and Div. 4XW; on flounders, except yellowtail, in Subarea 5; on mackerel in Subarea 5; on pollock in Div. 4X and Subarea 4; and on redfish in Subarea 5 were adopted by the Commission on 26 January 1973 and transmitted to Contracting Governments on 15 February 1973, with a resolution requesting Contracting Governments to accept the proposals by 15 April 1973 and be bound by them at an earlier date than provided under the normal 6-month waiting period, i.e., 15 August 1973. The proposals had not entered into force by 30 June 1973, the end of the fiscal year.

# 9. Report of STACTIC

# (Agenda Items 13-15 and 39)

The Standing Committee on International Control (STACTIC) met, under the chairmanship of Captain J. C. E. Cardoso (Portugal) with Mr V. M. Hodder (ICNAF) as rapporteur, on 5, 13, and 15 June to consider possible improvements to the scheme of joint enforcement, to review the annual returns of infringements, and to review the standard logbook and its use. These items were assigned to STACTIC by the Commission at its First Plenary Session on 5 June 1973. The Report of STACTIC was presented to the Commission for adoption at its Final Plenary Session on 16 June 1973. Major items adopted are summarized below:

In respect of the ICNAF Scheme of Joint a) Enforcement which entered into force on 7 January 1971 and became operative on 1 July 1971, except for reservations by USSR, Poland and Romania in relation to inspection of gear below deck and catch, STACTIC reviewed its operation during the fiscal year 1972/73, heard reports by Member Countries of plans to participate, reviewed the Questionnaire and Report of Inspection, and considered recommendations from its Working Groups based on a USSR resolution regarding extension of the application of the Scheme into Statistical Area 6 and on a US proposal for amendment of the Scheme to make it more effective.

#### As a result, STACTIC recommended

- i) that the Commission note that, with the Scheme having become operative on 1 July 1971, all 16 Member Countries except Bulgaria, Denmark, Iceland, Italy, and Norway would be carrying out inspections under the Scheme in 1973 and that only Bulgaria, Iceland, and Italy would not be ready to be inspected.
- ii) that the Secretariat make the necessary amendments to the ICNAF Scheme's "Questionnaire" and "Report of Inspection" to cover such conservation measures as closed areas, closed seasons and fish size, following the NEAFC Questionnaire as closely as possible, and that the Secretariat reprint the booklet containing the translations of the Questionnaire after incorporating all revisions since the last printing.
- iii) that the Commission take as notice for consideration at its next Annual Meeting, a Canadian proposal that, to be effective, the

provide for the seizure of an illegal net as evidence of an infraction and the return of the illegal net only to the appropriate authorities of the flag state.

- iv) that the Commission note the announced intention by Poland and Romania to withdraw all reservations to the Scheme of Joint Enforcement, and by USSR to remove reservations to inspection of fish on deck and give further consideration to withdrawal of the remaining reservation.
- v) that the Commission require the Secretariat of the Commission to circulate to all Contracting Governments 60 days prior to each Annual Meeting a document describing the results of each inspection carried out under the ICNAF Scheme of Joint Enforcement during the preceding year.
- vi) that the Commission ask every Contracting Government to appoint, before the end of 1973, one or more competent officials who may be contacted through an appropriate radio channel, both from the inspecting vessel and the inspected vessel, by an inspecting officer at such time that a significant infringement of the Convention regulation is noted. Such official so named shall be advised of the date, location and nature of the infringement for transmittal to the flag state.
- vii) that the Secretariat solicit the views of all Contracting Governments on the following questions:
  - 1) What is the legal value of the statement by an international inspecting officer that a certain vessel at a certain time in a certain location did not allow boarding to take place? Does it have to be corroborated by one witness? By two?
  - 2) What is the legal value of the inspection report properly witnessed and related documents properly certified? How should it be witnessed? How should they be certified?
- viii) that the Commission transmit to the Depositary Government for joint action by the Contracting Governments. proposal (31) for amendment of the Scheme of Joint Enforcement of the Fisheries Regulations in the

Convention Area, adopted in 1970, for international control outside national fishing limits for the purpose of ensuring the application of the Convention and the measures in force thereunder (Appendix III).

ix) that the Commission adopt the following Resolution relating to application of the Scheme outside the Convention Area in Statistical Area 6:

## The Commission

Taking into Account the fact that measures for conservation of some stocks enacted pursuant to Article VIII of the Convention are applicable both within the Convention Area and in Statistical Area 6.

Having Considered the importance of ensuring that the Scheme of Joint Enforcement may be applied to enforce these regulations in waters outside national fishery limits, in Statistical Area 6 as well as inside the Convention Area, and having adopted a proposal to this effect.

Being aware of the time period before the proposal referred to above may enter into effect under the provisions of Article VIII of the Convention as amended, and the desirability, in the interest of conservation, of taking appropriate steps to enforce these regulatory measures in Statistical Area 6 as soon as possible prior to the effective date of the proposal referred to above,

- 1. Invites the attention of all Contracting Governments to the above matters,
- 2. Requests all Contracting Governments fishing those stocks which are regulated in waters both inside the Convention Area and in Statistical Area 6 to take appropriate action as soon as possible to ensure the timely acceptance and effective implementation of the above-mentioned proposal,
- 3. Further Requests all Contracting Governments fishing those

stocks which are regulated in waters both inside the Convention Area and in Statistical Area 6 to notify the Depositary Government promptly, if possible before 30 July 1973, of their acceptance of the above-mentioned proposal and their willingness to inspect and be inspected under it from 15 August 1973 or from a date earlier than provided under the normal procedure, if possible.

- x) that the STACTIC Working Group on Improving the International Joint Enforcement Scheme continue to study all possible alternatives for substantial improvements to the Scheme using as a basis the US proposal to the 1973 Annual Meeting and to submit initial views on the proposal to the Executive Secretary who will circulate copies to Members of the Working Group which will include representatives of Canada, Federal Republic of Germany, Japan, Norway, Poland, Portugal, Romania, USSR, UK, and USA.
- b) STACTIC reviewed the use of logbooks on all vessels of Member Countries fishing in the Convention Area and the comments on the proposed standard ICNAF logbook format, and agreed (i) that day-by-day logbook records were adequate, and (ii) that the Secretariat inform all Member Countries of the information required, so they can incorporate these items in their logbook system.
- c) STACTIC reviewed the Annual Returns of Infringements and recommended.
  - i) that the Commission request the Secretariat to report national and international inspections and infringements separately in future submissions by Member Countries.
- d) STACTIC unanimously re-elected Captain J. C. F. Cardoso (Portugal) as Chairman for the year ending 30 June 1974.

# 10. Report of STACRES (Agenda Item 36)

The Standing Committee on Research and Statistics (STACRES) met under the chairmanship of Dr A. S. Bogdanov (USSR), with Mr V. M. Hodder (ICNAF) as rapporteur, at Copenhagen, Denmark from 22 May to 2 June and on 14 June 1973. The ICES/ICNAF Joint Working Group on North Atlantic Salmon met at Charlottenlund, Denmark, 19-23 March 1973 under the chairmanship of Mr B. B. Parrish (UK).

The Report of STACRES, with subcommittee and working group reports as appendices, is published as Section B in ICNAF *Redbook* 1973, Part I. The Report was adopted by the Commission in Plenary Session on 16 June 1973. Items of major importance dealt with are summarized below.

#### a) Assessments

The Assessments Subcommittee reported

- i) that the total nominal catch of 3,150,000 tons from the Convention Area and 1,060,000 tons from Statistical Area 6 was about the same as that reported in 1971; cod accounted for about 25% of the total Convention Area and Statistical Area 6 catch, followed by herring (13%), mackerel (10%), redfish (7%) and silver hake (5%); other species as groups were flounders (7%), other groundfish (5%), other pelagics (8%), other fish (6%), and shellfish (14%). The most significant changes were decreases in herring (27%) and shellfish (8%) and increases in mackerel (9%), other pelagics (mainly menhaden) (32%), and other fish (mainly capelin and argentines) (41%);
- ii) that, in addition to updating assessments for stocks regulated in 1973, emphasis was placed on an assessment for mackerel, new assessments for some groundfish species (notably redfish and flounders), and a review of the potential of the developing squid and capelin fisheries;
- iii) that catch quotas for cod be extended to additional stocks so that the coverage for 1974 includes stocks in Subarea 1, Div. 2GH, 2J-3KL, 3M, 3NO, 3Ps, 4VsW, 5Y, and 5Z;
- iv) that the haddock stocks in Subareas 4 and 5 have continued to decline to the extent that there should be no directed fishery in 1974 and that effort be made to reduce the catches of haddock taken incidentally to other fisheries, as the by-catch itself may be greater than the annual surplus production;
- v) that catch quotas for redfish should be

- vi) that a catch quota for American plaice should be continued in 1974 on the stock complex in Div. 3LNO;
- vii) that catch quotas for yellowtail should be continued in 1974 on stocks in Div. 3LNO, Subarea 5 (east of 69°W), and Subarea 5 (west of 69°W);
- viii) that catch quotas for certain flounders (American plaice, yellowtail and witch combined) in Div. 4VWX and all flounders (except yellowtail) in Subarea 5 be applied in 1974;
- ix) that a catch quota for silver hake should be applied on the stock in Div. 4VWX for 1974 and that quotas on the stocks in Div. 5Y, Subdiv. 5Ze, and 5Zw plus Statistical Area 6 should be continued;
- x) that a pre-emptive catch quota for pollock, as initiated for 1973 at the Mid-Term Meeting in January 1973, should be continued in 1974 with an extension of the area to include Div. 4V and 4W, in addition to the 1973 coverage of Div. 4X and Subarea 5;
- xi) that, because of significant catches of red hake in the Georges Bank area in 1972, a catch quota for red hake, which in 1973 covered only Subdiv. 5Zw and Statistical Area 6, should be extended in 1974 to cover all of Subarea 5 and Statistical Area 6, pending the completion of a new assessment of the stocks in the area;
- xii) that a detailed assessment of the mackerel stock in Subarea 5 and Statistical Area 6 indicated that the catch quota for 1974 should be reduced by nearly 50% from the pre-emptive quota of 450,000 tons agreed by the Commission at its Special Commission Meeting in January 1973; some scientists disagreed with the conclusion and the Subcommittee invited them to provide for the 1974 Mid-Term Meeting an independent assessment together with supporting data which would permit a critical evaluation of the parameters used in the assessments;
- xiii) that, pending an assessment of the herring

stock in Subdiv. 4Vs (Banquereau), a preemptive quota be applied for 1974;

- xiv) that a first assessment of the squid stocks in Subarea 5 and Statistical Area 6 indicates that at current catch levels the squid fishery is approaching a level of full exploitation;
- xv) that, in order to control the development of the capelin fishery in Subareas 2 and 3, pending the collection and analysis of data for assessment purposes, a pre-emptive catch quota not exceeding 250,000 tons be set for 1974;
- xvi) that insufficient data are available to assess, even in a preliminary manner, some other species, e.g. sand launce, Greenland halibut, roundnose grenadier, argentine, oceanic redfish, etc., for which significant fisheries may be, or have already been, developed;
- xvii) that 1974 catch quota for the herring stocks (except Banquereau) will be assessed at the Mid-Term Meeting of the Assessments Subcommittee in January 1974;
- xviii) that the best estimates for herring catch quota could be established at the regular Annual Meeting in June for implementation in a quota year beginning shortly after the Annual Meeting;
- xix) that the introduction of a 130-mm minimum mesh size for regulated groundfish species in Subarea 4, including Div. 4X, would result in increased yields of cod, haddock and flounders;
- xx) that progress was made in establishing a comprehensive groundfish survey program for the ICNAF Area including improvements in gear comparability and sampling design that would enhance the value of the results, and discussions took place on the feasibility of conducting surveys, especially in Subareas 4 and 5, that would be useful for assessing both the groundfish and pelagic fish stocks; that, with the increasing volume of data becoming available, timely analysis must rely on automatic data-processing to an increasing extent, and that the feasibility of establishing an expanded central data-processing unit at the Secretariat should be investigated.

#### b) Statistics and Sampling

The Statistics and Sampling Subcommittee reported

- i) that the Statistical Bulletin for 1971 was issued in December 1972, 4 months earlier than that for 1970, despite delays in submissions of catch and effort statistics by some Member Countries;
- ii) that substantial improvements in the format of the Statistical Bulletin were recommended including the inclusion of Statistical Area 6 catch statistics in the same Tables containing data for Subarea 1 to 5, the addition of new Tables providing catches by species groups, and the expansion of the catch/effort Tables to provide separate listings for pollock, red hake, mackerel, American plaice, witch and yellowtail;
- iii) that there was an urgent need for Member Countries to establish and adequately maintain within their national administrations the resources necessary to provide the statistical data required by the Commission for effective implementation of its management program, and further, for these Countries to provide the monthly catch data for all species currently under catch quota immediately after the end of the calendar year in time for use by the Assessments Subcommittee at its Mid-Term Meeting.
- iv) that, with the exception of a very few stocks, sampling data are very inadequate and do not come close to meeting the minimum requirements established by STACRES and approved by the Commission several years ago, and, consequently, countries which catch significant quantities of fish in the various subareas should provide sampling data in sufficient quantity and detail to enable the calculation of the length and age composition of the commercial catches by stock/area on a monthly basis;
- v) that there were very substantial deficiencies in the present data base in contrast to the quantity and quality of data required for adequate assessments, and that a Special Working Group should be established to formulate a detailed plan of statistical and sampling requirements, and investigate the feasibility of expanding data-processing capabilities within the ICNAF Secretariat.

#### c) Environmental studies

The Environmental Subcommittee noted that, while ice and water temperature conditions in the West Greenland area in 1972 were less severe than in the previous year, water temperatures in the 0-500 m layer in the Labrador-Newfoundland areas were the lowest over the entire period of observation since 1936, and the intensity of the Labrador Current in October was higher than in any previous year on record, causing negative anomalies and a strong drift of ice. Concern for increasingly severe ice conditions off the Labrador coast during the past three or four years with consequent interference with fishing operations during the winter and spring prompted the Subcommittee at its 1972 Meeting to invite ice experts from Canada, Denmark, Japan and USA to attend the 1973 Meeting for discussion on the application of ice research and forecasting practices to fisheries needs.

The Subcommittee recommended

- that a series of papers on the hydrography of the Newfoundland-Grand Bank area and its effect on fishery trends be presented at the next meeting of the Environmental Subcommittee in 1974;
- ii) that, in order to facilitate the standardization of sections and stations and of base periods for temperature and salinity anomalies, two *ad hoc* groups be set up, one to coordinate the study in the West Greenland area and the other for the Canadian eastern shelf area;
- iii) that the Canadian Oceanographic Data Centre (CODC) be identified as a regional centre for the processing and exchange of data for the ICNAF Area;
- iv) that the UK Institute of Marine Environmental Research be requested to present annually a report on the results of the previous year's Continuous Plankton Recorder Surveys, and that a representative of that Institute be invited to present a paper to the 1974 Meeting on plankton studies in the ICNAF Area in 1972 with emphasis on long-term trends and anomalies;
- v) that the Commission encourage the provision of at least one weather report per day to coastal marine radio stations from fishing vessels operating in waters off Greenland and Canada when ice is in the vicinity.

#### d) ICES/ICNAF Joint Working Party on North Atlantic Salmon

The Committee considered the report of the latest meeting of the Working Party held at Charlottenlund, Denmark, 19-23 March 1973. The report included a review of the latest data on the salmon fisheries at West Greenland and in European and North American home waters, and presented an account of the International Salmon Tagging Experiment at West Greenland in 1972.

The Committee noted that the salmon catch at West Greenland decreased by 575 tons to 2.113 tons in 1972, due to declines in the drift-net fishery because of lower catch rates and poor weather conditions after August. The inshore fishery by Greenlanders (1,410 tons) was at about the same level as that in 1971 and was distributed fairly uniformly throughout the fishing season. Further recaptures at West Greenland in 1972 of salmon tagged as smolts in home waters, and of recaptures in home waters of salmon tagged at West Greenland in 1972, together with further biochemical and seriological studies, showed that the exploited stock in 1972 was composed of fish from North American (mainly Canada) and European (mainly Great Britain and Ireland) rivers. The data available suggest that fish originating in Norwegian and USSR rivers make up a very small part of the exploited stock at West Greenland. Home-water catches of salmon and grilse in European countries were higher in 1972 than in 1971, while the Canadian catch was lower, due, in part at least, to the introduction of a ban on commercial salmon fishing in some of the most productive salmon-fishing areas.

The International Salmon Tagging Experiment was successfully carried out during 2 August-16 October 1972 at West Greenland, where 2,364 tagged salmon were liberated (811 from research vessels and 1,553 by scientific personnel on board commercial drift-net vessels). The very important coordinating role of the staff at the Greenland Research Institute and the willing cooperation of the crews of commercial fishing vessels were acknowledged.

The Committee approved the Working Party's plans to appraise the results of the tagging experiment and to update its assessment at its meeting in Copenhagen, Denmark 15-22 March 1974.

#### e) Other matters

The Committee expressed its appreciation for the excellent work of the outgoing Chairman, Dr A. S. Bogdanov (USSR), and welcomed the new Chairman, Dr A. W. May (Canada).

# 11. Report of STACREM (Items 16 and 36)

The Standing Committee on Regulatory Measures (STACREM) met, under the chairmanship of Mr J. Graham (UK), on 6 June 1973 to consider, generally, the principles and problems of limiting fishing as a conservation measure and, particularly, to hear advice from March (ICNAF Summary Document 73/5) and May-June 1973 (ICNAF Summary Document 73/37) meetings of a Group of Experts on Effort Limitation set up at the Special Commission Meeting in January 1973 (Part 2). The Group looked at two major options for management - continuing the existing regulatory regime of catch quotas on major species or introducing regulations to control total fishing mortality as proposed by the USA to the Special Commission Meeting, January 1973, for Subarea 5 and Statistical Area 6. The advantages and disadvantages related to three proposed management schemes, i.e., single or group species catch quotas, total catch quotas with some or all species quotas or total effort limitation with some species quotas were noted by STACREM, which accepted that there is as yet inadequate information to permit full evaluation of the proposed US effort limitation scheme and that individual species catch quotas is not satisfactory in achieving the Commission's management objectives of maximum sustainable yield in a mixed species fishery, such as exists in Subarea 5 and Statistical Area 6 where by-catch and the level of total fishing (biomass) are major problems. Discussion in STACREM revealed that the feeling of a large majority was that the use of effort limitation could not, at this stage of knowledge, be recommended to the Commission and that further studies should be undertaken. On the other hand, two delegations believed that effort limits should be initiated immediately. The US delegate, while reiterating that a permanent solution must include effort limitation, expressed interest with a number of other delegates in total catch quota superimposed on species catch quotas as a useful concept for interim solution of the Subarea 5 and Statistical Area 6 management problem. Also needed were improvements in Member Countries' commitments to collect adequate statistics in mixed fisheries, control of excessive rate of exploitation by more effective selective fishing techniques and improved enforcement procedures (ICNAF Comm. Doc. 73/18). STACREM then recommended

> i) that the Panels concerned should consider possible solutions, including a total catch quota superimposed on individual species quotas and the ten US proposals for more effective management as included in ICNAF Commissioners Document 73/18;

ii) that the Group of Experts continue its study of effort limitation.

# 12. Reports of Panels

(Agenda Items 17-34 and 40)

The Commission at its First Plenary Session assigned Plenary Agenda Item 17 on Atlantic salmon, Item 26 on cod, Item 30 on developing fisheries, and Item 34 on maximum utilization of catches of regulated species to a joint meeting of Panels 1-5; Item 18 on haddock, Item 19 on silver and red hakes, Item 22 on pollock, Item 23 on redfish, and Item 25 on herring to a joint meeting of Panels 4 and 5; Item 20 on yellowtail, Item 23 on redfish, Item 27 on American plaice, and Item 28 on witch to Panel 3; Item 20 on yellowtail, Item 21 on mackerel, Item 24 on flounders except yellowtail, and Item 31 on scallop to Panel 5; Item 29 on yellowtail, witch and American plaice combined, and Item 33 on uniform mesh size in the Convention Area to Panel 4; and Item 32 on seals to Panel A.

Reports of meetings of Panels 1 and 2 and Panel A (Seals) and of joint meetings of Panels 1-5 and 2 and 3 were received and adopted with recommendations by the Commission in Plenary Session on 14 June 1973 with Iceland abstaining from voting on all total allowable catches (TAC's) and their allocations. Reports of meetings of Panels 3 and 4 and joint meetings of Panels 4 and 5 were received and adopted by the Commission in Final Plenary Session on 16 June 1973, with Iceland again abstaining from voting on all TAC's and their allocations and USA voting No to the recommended TAC and allocation for the cod stock in Div. 3NO of Subarea 3.

a) **Panel 1.** The Panel, under the chairmanship of Dr D. Booss (FRG), strongly endorsed the recommendation of STACRES relating to the collection of statistical and sampling data in order to provide better scientific assessments. The Panel considered a Danish proposal for a catch quota regulation for cod in the Subarea. Following detailed consideration of the special needs of coastal and non-coastal states, the Panel agreed to increasing the total allowable catch (TAC) from the 80,000 tons recommended by STACRES to 107,000 tons including an estimated 12,000 tons to be taken outside the Convention Area and, by a majority of two-thirds, recommended

> "that the Commission transmit to the Depositary Government for joint action

by the Contracting Governments proposal (1) for international quota regulation of the fishery for cod in Subarea 1" (Appendix III).

The Panel endorsed the recommendation by the Joint Meeting of Panels 1-5 regarding elimination of the wasteful practice of discarding edible fish and requested Member Countries fishing in the Subarea to report full information on discards to the Commission. The Panel unanimously elected Mr K. Raasok (Norway), Chairman of the Panel for 1973/74 and 1974/75.

b) Panel 2. The Panel, under the chairmanship of Mr R. H. Letaconnoux (France), considered conservation requirements for cod, witch and capelin stocks in the Subarea. The Panel, having agreed that the total allowable catch (TAC) of cod in Div. 2GH should be 20,000 tons in 1974, including an estimated 1,000 tons to be taken outside the Convention Area, recommended

> "that the Commission transmit to the Depositary Government for joint action by the Contracting Governments proposal (2) for international quota regulation of the fishery for cod in Divisions 2G and 2H of Subarea 2" (Appendix III).

The Panel also **agreed** that the TAC's in 1974 would be 650,000 tons for the cod stock in Div. 2J-3KL and 17,000 tons for the witch stock in Div. 2J-3KL, but that these TAC's and the matter of catch quota control for the developing capelin fisheries in Subareas 2 and 3 would be referred to a joint meeting of Panels 2 and 3 for further consideration of TAC's and their national allocation. The Panel unanimously elected Mr K. Henriksen (Canada), Chairman of Panel 2 for 1973/74 and 1974/75.

c) Panel 3. The Panel, under the chairmanship of Mr E. Gillett (UK), first considered levels for TAC's for 1974 for stocks of cod, American plaice, yellowtail, redfish, witch, and capelin in the Subarca. The Panel agreed unanimously that the TAC's for the Div. 2J-3KL cod stock should be 650,000 tons as suggested by Panel 2, and for the Div. 2J-3KL witch stock should be 21,000 tons, 4,000 tons more than that suggested by Panel 2. These TAC's along with conservation needs for capelin stocks and consideration of the need for full use of regulated species were referred to a joint meeting of Panels 2 and 3 for further consideration. The Panel further agreed that TAC's for 1974 for the Div. 3M cod stock should be 40,000 tons, 5,000 tons higher than recommended by STACRES; for the Div. 3NO cod stock, 100,000 tons, 15,000 tons higher than recommended by STACRES; for the Subdiv. 3Ps cod stock, 70,000 tons as recommended by STACRES; for the Div. 3LNO American plaice stock, 60,000 tons as recommended by STACRES; for the Div. 3LNO yellowtail stock, 40,000 tons as recommended by STACRES; for the Div. 3LN redfish stock, 28,000 tons, 8,000 tons higher than recommended by STACRES; for the Div. 30 redfish stock, 16,000 tons, 1,000 tons higher than the STACRES recommendation; for the Div. 3P redfish stock, 25,000 tons, 2,000 tons more than the STACRES recommendation; for the Div. 3M redfish stock, 40,000 tons; for the Div. 3NO witch stock, 10,000 tons as recommended by STACRES; and for the Subdiv. 3Ps witch stock, 3,000 tons, 400 tons more than the STACRES recommendation. With agreement that the national allocations of TAC's would be made within the limits of the TAC's already agreed to, unless there were compelling reasons to exceed them, the Panel recommended

"that the Commission transmit to the Depositary Government for joint action by the Contracting Governments proposal (5) for international quota regulation of the fishery for cod in Division 3M of Subarea 3; proposal (6) for amendment of the international quota regulation. adopted in 1972, of the fishery for cod in Divisions 3N and 3O of Subarea 3; proposal (7) for amendment of the international quota regulation, adopted in 1972, of the fishery for cod in Subdivision 3Ps of Subarea 3; proposal (8) for amendment of the international quota regulation, adopted in 1972, of the fishery for American plaice in Divisions 3L, 3N and 3O of Subarea 3; proposal (9) for amendment of the international quota regulation, adopted in 1972, of the fishery for yellowtail in Divisions 3L, 3N and 30 of Subarea 3; proposal (10) for international quota regulation of the fishery for redfish in Division 3M of

Subarea 3; proposal (11) for international quota regulation of the fishery for redfish in Divisions 3L and 3N of Subarea 3; proposal (12) for international quota regulation of the fishery for redfish in Division 3O of Subarea 3; proposal (13) for international quota regulation of the fishery for redfish in Division 3P of Subarea 3; proposal (14) for international quota regulation of the fishery for witch in Divisions 3N and 3O of Subarea 3; proposal (15) for international quota regulation of the fishery for witch in Subdivision 3Ps of Subarea 3" (Appendix III).

The Panel unanimously elected Mr V. Bermejo (Spain), Chairman of Panel 3 for 1973/74 and 1974/75.

d) Panel 4. The Panel, under the chairmanship of Captain J. C. E. Cardoso (Portugal), noting the need to determine the date on which the 130-mm mesh size regulation for cod, haddock and flounders in Subarea 4 adopted at the 1972 Annual Meeting would become effective in Division 4X, recommended

> "that the Trawl Regulations adopted at the Twenty-Second Annual Meeting (Annu. Proc. Vol. 22, p. 61) become effective for Division 4X of Subarea 4 as of 1 January 1974".

The Panel, in considering conservation measures for cod, haddock, herring, pollock, redfish, silver hake and the yellowtail, witch and American plaice combined stocks, agreed that the TAC in 1974 for the Subdiv. 4Vs and Div. 4W cod stock should be 60,000 tons, the STACRES recommendation; for the Div. 4X and Div. 4VW haddock stocks, 'zero' tons as recommended by STACRES; for the Div. 4V and northern part of 4W herring stock, 45,000 tons the STACRES recommendation; for the Div. 4VWX redfish stock, 40,000 tons, 10,000 tons more than recommended by STACRES; for Div. 4VWX silver hake, 100,000 tons, the upper limit of the STACRES recommendation; and for Div. 4VWX yellowtail, witch and American plaice combined stock, 32,000 tons as recommended by STACRES.

The Panel further agreed to refer to a joint meeting of Panels 4 and 5 the question of

herring size limit exemptions and of procedures for bringing into effect without delay catch quotas for 1974 for the herring stock in Div. 4X and the southern part of Div. 4W which would be agreed at the Commission's Mid-Term Meeting early in 1974.

The Panel agreed that the pollock stock which extended through Div. 4VWX of Subarea 4 and through Subarea 5 would have a TAC of 55,000 tons and that national allocation should be taken up in a joint meeting of Panels 4 and 5.

Following negotiations, the Panel recommended

"that the Commission transmit to the Depositary Government for joint action by the Contracting Governments proposal (16) for amendment of the international quota regulation, adopted in 1972, of the fishery for cod in Subdivision 4Vs and Division 4W of Subarea 4; proposal (17) for amendment of the international quota regulation, adopted in 1972, of the fishery for haddock in Division 4X of Subarea 4; proposal (18) for amendment of the international quota regulation, adopted in 1972, of the fishery for haddock in Divisions 4V and 4W of Subarea 4; proposal (19) for international quota regulation of the fishery for herring in Division 4V and the northern part of Division 4W of Subarea 4; proposal (21) for international quota regulation of the fishery for redfish in Divisions 4V, 4W and 4X of Subarea 4; proposal (22) for international quota regulation of the fishery for silver hake in Divisions 4V, 4W and 4X of Subarea 4; and proposal (23) for international quota regulation of the fishery for yellowtail, witch and American plaice combined in Divisions 4V, 4W and 4X of Subarea 4" (Appendix III).

The Panel unanimously elected Dr D. Booss (FRG), Chairman of Panel 4 for 1973/74 and 1974/75.

(e) **Panel 5.** The Panel, under the chairmanship of Dr A. W. H. Needler (Canada), approved the application of Bulgaria for membership in Panel 5. The Panel gave detailed consideration to the deteriorating condition of the fish stocks throughout Subarea 5 and Statistical Area 6 and to the US proposal as presented at the Special January Meeting of the Commission (Part 2), for total effort limitation. A majority of the Panel Members agreed that application of total effort limitation was not feasible at this time. Panel Members, however, agreed that studies of effort limitation should go forward and be given strong support.

The Panel then considered a US proposal for an overall catch quota for the total biomass of fish as an alternative interim conservation measure in Subarea 5 and Statistical Area 6. The "package" proposal included (1) an overall catch quota, (2) continuing catch quotas for major stocks of individual species, (3) use of selective fishing gear in certain areas, and (4) an improvement and strengthening of international control. The Panel noted that the USA considered that a 40% reduction in the total catch (from the average of the last 3 years) was justifiable to provide for recovery of the Subarea 5 and Statistical Area 6 stocks within 3 to 5 years.

As a first step in establishing a possible overall catch quota scheme, the Panel considered tentative total allowable catches (TAC's) for 1974 for individual stocks of cod in Div. 5Y (10,000 tons) and in Div. 5Z (35,000 tons), haddock in Subarea 5 ('zero'), herring in Div. 5Y (25,000 tons) and in Div. 5Z and Statistical Area 6 (150,000 tons), flounders except yellowtail in Subarea 5 and Statistical Area 6 (25,000 tons), mackerel in Subarea 5 and Statistical Area 6 (350,000 tons), pollock in Subareas 4 and 5 (55,000 tons), redfish in Subarea 5 (30,000 tons), red hake in Subdiv. 5Zw and Statistical Area 6 (50,000 tons), silver hake in Div. 5Y (10,000 tons), in Subdiv. 5Ze (50,000 tons) and Subdiv. 5Zw and Statistical Area 6 (80,000 tons), yellowtail in Div. 5Z east of 69°W (16,000 tons) and Div. 5Z west of 69°W (10,000 tons), squid in Subarea 5 and Statistical Area 6 (65,000 tons), and other fish in Subarea 5 and Statistical Area 6 (200,000 tons). The accumulated catch of proposed species and species group TAC's gave a total overall catch quota (excluding high seas pelagics and anadromous species) of 1,191,000 tons.

The Panel then proceeded to consider the national allocation of the tentative proposed TAC's for the various species and species groups. During the course of the negotiations, the Panel agreed that the catch quota and closed area proposals for regulation of haddock in Subarea 5 should be referred, along with proposals for quota regulation of the herring stocks in Div. 5Y and in Div. 5Z and Statistical Area 6, of the mackerel stock in Subarea 5 and Statistical Area 6, and of the pollock stock in Subareas 4 and 5, for consideration to a joint meeting of Panels 4 and 5.

The Panel reviewed the need to continue the regulations for closed area and season for red and silver hakes in Subarea 5 and recommended

"that the Commission transmit to the Depositary Government for joint action by the Contracting Governments proposal (29) for amendment of the international quota regulation, adopted in 1972, of the fishery for red hake and silver hake in Subarea 5" (Appendix 111).

The Panel considered US proposals for international regulation of fishing gear employed in the trawl fisheries in Subarea 5 and for supplemental mesh regulations for the trawl fisheries in Div. 5Z. The Panel **agreed** that Members should be prepared to discuss these proposals further at the Mid-Term Meeting of the Commission in 1974.

The Panel referred a US proposal to amend the trawl regulations to delete the 10% annual exemption clause in Subarea 5 to a joint meeting of Panels 4 and 5.

The Panel then considered tables prepared by the US delegation which presented proposed species TAC's, species allocations and 1974 overall allocations for a TAC of 825,000 tons which represented an overall reduction of about 25% in catch from the average for the past three years in Subarea 5 and Statistical Area 6. Counter proposals of 20% reduction by Spain and 10% (the allowed limit of by-catch under the Commission regulations) by USSR were unacceptable to the USA. Following further and lengthy discussion, in which no decision on the proposals was reached, the Panel meeting adjourned with a recommendation to the Commission to hold a Special Commission Meeting in September-October of 1973 to continue consideration of the problem of, and solution to, the excess fishing activity in Subarea 5 and Statistical Area 6.

During consideration of the report of the Panel at the final Plenary Session of the Commission, a proposal that the individual TAC's and allocations be accepted met objection from the USA which said that these were only one part of the "package" which required that the proposed overall total allowable catch reduction also be accepted. A Canadian proposal to record that the allocations of proposed TAC's for individual species were agreed to tentatively but were not formally accepted by the Panel Members because a number of delegations regarded them as being conditional on the solution of the major problem was accepted. The US delegate said that he could not agree to a Special Commission Meeting, as proposed by the Panel, unless there was an understanding that significant changes would be made in the regulatory regime in Subarea 5 and Statistical Area 6. In further consideration, the Panel report and its tables were considered by the Plenary to represent the stage reached in the Panel and Plenary discussions and to be the condition for selection of the overall total allowable catch proposal. A Canadian proposal that the Commission recommend to Member Countries that they approve the Panel recommendation to hold a Special Meeting of the Commission in September-October 1973, subject to the US agreement to participate, was accepted by a large majority of the delegates. The Canadian delegate volunteered to inquire about holding such a meeting in Canada.

f) Panel A. The Panel, under the chairmanship of Dr A. W. H. Needler (Canada), received a brief from the US Commissioners which expressed the hope that countries engaged in sealing would take into account the achievement of optimum sustainable yield on the basis of seals relative to a balanced ecosystem, rather than on the basis of their economic utility. The Panel then reviewed the status of harp and hood seal populations and as conservation measures for 1974 recommended

> "that the Commission transmit to the Depositary Government for joint action

by the Contracting Governments proposal (30) for international regulation respecting the protection of seals in the "Gulf" and "Front" areas of the Convention Area" (Appendix 111).

g) Joint Panels 1-5. The Joint Panel Meeting was convened under the chairmanship of Mr K. Løkkegaard (Denmark). The Joint Panels reviewed the status of Atlantic salmon research and the fishery and agreed that a Canadian proposal for conservation measures in the developing fishery for capelin in Subareas 2 and 3 should be referred to a joint meeting of Panels 2 and 3. The Canadian proposal to the 1972 Annual Meeting prohibiting the discard of any fish of a regulated species weighing over one half kilogram was again discussed by the Joint Panels, which recommended

> "that the Commission request Member Governments to discourage and to eliminate, if possible, the wasteful practice of discarding at sea edible fish caught by fishing vessels and to improve the statistics and the sampling of catches including any discards as recommended by STACRES".

The Joint Panels then proceeded to discuss the matter of guidelines for the allocation of total allowable catches. The UK and Portuguese delegates claimed the use of the formula for national allocation of the TAC's which gave 40% for 10-year and 40% for 3-year historical performance in the fishery was unequitable and unsuitable, because it gave four times as much weight to performances during any of the last three years as was given to performance during any of the previous seven. The formula in effect rewarded the countries who had contributed to the pressure on stocks and penalized those who had not. The Icelandic delegate stated that his country could not accept anything called historic rights. The Canadian delegate said the Canadian proposal for national allocation was designed to provide that Canada as a coastal state should take its needs from the TAC and the remainder be shared by countries on the basis of some formula which could be historical performance. The Japanese delegate declared for practical negotiations of the allocation of each TAC. The USSR delegate pointed out that it was impossible to allocate without a

principle and that the STACREM principles were used in 1972 as a basis for allocation and seemed to be convenient to all the countries in all cases. Following other expressions of opinion, the Joint Panel Members agreed that the 10 year-3 year formula was only a basis for starting discussions of the allocations of TAC's and modifications could be made to deal with any injustices or special needs that might become apparent.

h) Joint Panels 2 and 3. The Joint Panels, under the chairmanship of Mr E. Gillett (UK), considered catch quota control for the Div. 2J-3KL cod stock, for the Div. 2J-3KL witch stock and for the developing fishery in Subareas 2 and 3 for capelin, items which had been referred from meetings of Panel 2 and Panel 3.

> Following negotiations, the TAC for the Div. 2J-3KL cod stock was revised upward from 650,000 tons to 656,700 tons including an estimated catch of 50,000 tons by Canada outside the Convention Area, 2,000 tons unallocated and 15,000 tons for nonmember countries. Then Panels 2 and 3, in joint session, recommended

"that the Commission transmit to the Depositary Government for joint action by the Contracting Governments proposal (3) for amendment of the international quota regulation, adopted in 1972, of the fishery for cod in Division 2J of Subarea 2 and Divisions 3K and 3L of Subarea 3" (Appendix III).

The Joint Panels agreed that the TAC for the Div. 2J-3KL witch stock be revised upward from 21,000 tons to 22,000 tons including an estimated eatch of 2,500 tons by Canada outside the Convention Area, 600 tons for new entrants and by-eatch, and 500 tons for non-member countries. Panels 2 and 3, in joint session, recommended

"that the Commission transmit to the Depositary Government for joint action by the Contracting Governments proposal (4) for international quota regulation of the fishery for witch in Division 2J of Subarea 2 and Divisions 3K and 3L of Subarea 3" (Appendix 111).

Regarding the developing fishery for capelin

in Subareas 2 and 3, Panels 2 and 3, in joint session, recommended

"that the Commission accept the TAC recommended for 1974 by the STACRES of 250,000 metric tons and that allocation of this TAC be considered at the next meeting of the Commission, if adequate data were available."

i) Joint Panels 4 and 5. The Joint Panels met under the chairmanship of Captain J. C. E. Cardoso (Portugal).

> The Joint Panels considered the Canadian proposal to use an alternate scheme for herring size limit exemption based on 25% by count per trip or 10% by weight per trip. It was agreed that Canada would circulate a draft proposal to the Mid-Term Meeting of the Commission for consideration.

> The Joint Panels considered the catch quota control for pollock stocks in Div. 4VWX and Subarea 5 and agreed to a TAC of 55,000 tons for 1974, as recommended by Panel 4, to replace the catch quota for pollock in Div. 4X and Subarea 5, adopted in January 1973 for 1973. Panels 4 and 5, in joint session, recommended

"that the Commission transmit to the Depositary Government for joint action by the Contracting Governments proposal (24) for amendment of the international quota regulation, adopted in January 1973, of the fishery for pollock in Divisions 4V, 4W and 4X of Subarea 4 and in Subarea 5" (Appendix III).

The Joint Panels agreed generally that the 12-month exemption clause should be removed from the trawl regulations in both Subarcas 4 and 5 and agreed that the USA should provide a draft proposal for consideration by the Commission at its Mid-Term Meeting.

The Joint Panels considered a Canadian proposal for international quota regulation of the fishery for herring in the Nova Scotia, Georges Bank and Gulf of Maine stocks and for mackerel in the Southern New England stock, items referred from meetings of Panels 4 and 5. The Joint Panels noted that the proposal stressed, in principle, the delegation of responsibility from the Commission to its Mid-Term Meeting in January 1974 for setting herring and mackerel quotas for 1974 and, in effect, waived the sixmonth period for objection to such a proposal as required under normal Commission procedures. Following support for the proposal, Panel 4, in joint session with Panel 5, recommended

"that the Commission transmit to the Depositary Government for joint action by the Contracting Governments proposal (20) for amendment of the international quota regulation, adopted in January 1973, of the fishery for herring in Division 4X and the southern part of Division 4W of Subarea 4" (Appendix 111);

and Panel 5, in joint session with Panel 4, recommended

"that the Commission transmit to the Depositary Government for joint action by the Contracting Governments proposal (26) for amendment of the international quota regulation, adopted in January 1973, of the fishery for herring in the Georges Bank stock; proposal (27) for amendment of the international quota regulation, adopted in January 1973, of the fishery for herring in Division 5Y of Subarea 5; and proposal (28) for amendment of the international quota regulation, adopted in January 1973, of the fishery for mackerel in the Southern New England stock" (Appendix 111).

The Joint Panels considered a proposal for haddock in Subarea 5 which contained a zero catch quota, closed areas and provision for by-catch. Similar and suitable proposals had already been applied to Div. 4X (proposal (17)) and Div. 4VW (proposal (18)) haddock stocks in Subarea 4. Panel 5, in joint session with Panel 4, recommended

"that the Commission transmit to the Depositary Government for joint action by the Contracting Governments proposal (25) for amendment of the international quota regulation, adopted in 1971 and amended in 1972, of the fishery for haddock in Subarea 5" (Appendix III). The Joint Panels considered the question of extension of any overall effort or catch limitation in Subarea 5 to other Subareas. It was agreed that, because there was not sufficient information available at present, the matter of extension of such conservation measures to all Subareas of the Convention should be reviewed at the Mid-Term Meeting.

# 13. Election of Chairman and Vice-Chairman

Mr M. Fila (Poland) was unanimously elected Chairman of the Commission for the period 1973/74 and 1974/75 to succeed Mr K. Løkkegaard (Denmark). Mr E. Gillett (UK) was unanimously elected Vice-Chairman for the same period.

#### 14. Acknowledgements and Adjournment

The Chairman acknowledged reports from NEAFC, ICES, OECD, and FAO and stressed the importance of continued interest and support from these organizations in the Commission's conservation program. The Chairman thanked all meeting participants for their contribution to the discussions and decisions. He thanked the Danish Government as host to the Commission's meetings and acknowledged the kind hospitality of the Danish Ministry of Fisheries, of the Faroese Ministry of Fisheries and of the Greenland Administration. He welcomed Mr Fila (Poland) the newly-elected Chairman of the Commission and wished him every success and thanked the delegates and their advisers for their support during his term of office. Mr V. M. Kamentsev (USSR) extended a warm thanks to the retiring Chairman, on behalf of the meeting participants, for his efforts on behalf of the Commission.

There being no other business, the Chairman declared the 23rd Annual Meeting of the Commission adjourned at 1210 hrs, 16 June 1973.

# PART 3

# Appendix I

# List of Participants

#### (Head of Delegation in **bold**)

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# PART 3

# Appendix II

# Agenda

## PROCEDURES

- 1. Opening
- 2. Agenda
- 3. Publicity

# ADMINISTRATION

- 4. Approval of draft report of Proceedings of Special Commission Meeting, Rome, January 1973 (Summ. Doc. 73/1).
- 5. Panel Memberships (Comm.Doc. 73/7).
- 6. Administrative Report (Comm.Doc. 73/10).

#### FINANCE

- 7. Auditor's Report (1971/72) (Ann.Proc.22, p. 11-15).
- 8. Financial Statement, 1972/73 (preliminary) (Comm.Doc. 73/10).
- 9. Budget Estimate, 1973/74 (Appendix I, Agenda STACFAD).
- 10. Budget Forecast, 1974/75 (Appendix II, Agenda STACFAD).
- 11. Consideration of Amendment to Convention Article XI(3) (Comm.Doc. 73/16).

## **COMMISSION PROPOSALS**

- 12. Status of proposals adopted by Commission (Comm.Doc. 73/9).a) for changes in Convention.
  - b) for regulation of fisheries.

#### INTERNATIONAL CONTROL

- 13. Annual Returns of Infringements (Comm.Doc. 73/8).
- 14. Scheme of Joint Enforcement (1972 Mtg.Proc.No. 15).
- 15. Standard logbook (1972 Mtg.Proc.No. 15).

# CONSERVATION

- Principles and problems of limiting fishing as a conservation measure (Summ.Doc. 73/1, 73/5; Comm.Doc. 73/15).
- 17. Conservation of Atlantic salmon in the Convention Area (Summ.Doc. 73/7) (1972 Mtg.Proc.No. 13).
- Conservation of haddock stocks in Subareas 4 and 5 (Comm.Doc. 73/13) (1972 Mtg.Proc.No. 7 and 14).
- Conservation of silver and red hakes in Subareas 4 and 5 and Statistical Area 6 (Comm.Doc. 73/13) (1972 Mtg.Proc.No.7).
- 20. Conservation of yellowtail flounder in Subareas 3 and 5 and Statistical Area 6 (1972 Mtg.Proc.No. 5 and 7).
- 21. Conservation of mackerel in Subarea 5 and Statistical Area 6 (Summ.Doc. 73/1).

- 22. Conservation of pollock in Subareas 4 and 5 (Summ.Doc. 73/1).
- 23. Conservation of redfish in Subarea 5 (Summ.Doc. 73/1).
- 24. Conservation of flounders, except yellowtail, in Subarea 5 and Statistical Area 6 (Summ.Doc. 73/1).
- Conservation of herring stocks in Subareas 4 and 5 and Statistical Area 6 (Comm.Doc. 73/14; Summ.Doc. 73/1).
- Conservation of cod in the Convention Area (Comm.Doc. 73/11) (1972 Mtg.Proc.No. 5, 6, 7 and 11).
- 27. Conservation of American place in Subarea 3 (1972 Mtg.Proc.No. 5 and 11).
- Conservation of witch flounder in Subarea 3 (Comm.Doc. 73/13).
- 29. Conservation of yellowtail, witch and American plaice combined in Subarea 4 (Comm.Doc. 73/13).
- Conservation of developing fisheries in Convention Area (capelin in Subareas 1-4 (Comm.Doc. 73/12).
- 31. Conservation of scallops in Subarea 5 (1972 Mtg.Proc. No. 7).
- Conservation of seals in the Convention Area (Summ.Doc. 73/4).
- Measures to ensure uniform mesh size for regulated species in all Subareas (1972 Mtg.Proc.No. 14 and App. I).
- Measures to ensure maximum utilization of catches of regulated species in the Convention Area (Comm.Doc. 72/20) (1972 Mtg.Proc.No. 13).

# INTERNATIONAL COOPERATION

35. Reports of meetings of NEAFC, ICES, FAO, IOC, SCOR, and OECD.

# **REPORTS OF COMMITTEES AND PANELS**

- 36. Report of Standing Committee on Research and Statistics (STACRES).
- 37. Report of Standing Committee on Finance and Administration (STACFAD).
- Report of Standing Committee on Regulatory Measures (STACREM).
- 39. Report of Standing Committee on International Control (STACTIC).
- 40. Report of Panels 1-5 and Panel A (Seals).

#### **OTHER MATTERS**

- 41. Election of Chairman and Vice-Chairman for 1973/74 and 1974/75.
- 42. Date and place of 1974, 1975, and 1976 Annual Meetings.
- 43. Press statement.
- 44. Other business.
- 45. Adjournment.

# PART 3

# Appendix III

# List of Conservation Proposals (31) from the Annual Meeting, June 1973

# (1) Proposal for International Quota Regulation of the Fishery for Cod in Subarea 1 of the Convention Area

Panel 1 recommends that the Commission transmit to the Depositary Government the following proposal for joint action by the Contracting Governments:

"1. That the Contracting Governments take appropriate action to regulate the catch of cod, Gadus morhua L., by persons under their jurisdiction fishing in Subarea 1 so that the aggregate catch of cod by vessels taking such cod shall not exceed 95,000 metric tons in 1974.

"2. That Competent Authorities from each Contracting Government listed below shall limit in 1974 the catch of cod taken by persons under their jurisdiction to the amount listed from the above-mentioned Subarea:

Denmark	30,000 metric tons
France	6,300 metric tons
Fed. Rep. Germany	27,800 metric tons
Norway	
Portugal	10,000 metric tons
Spain	7,400 metric tons
USSR	1,000 metric tons
UK	
Others	1,000 metric tons

"3. That each Contracting Government mentioned by name in paragraph 2 above shall promptly notify the Executive Secretary of the date on which its vessels have ceased a specialized fishery for cod. Each Contracting Government not mentioned by name in paragraph 2 above shall promptly notify the Executive Secretary if its vessels engage in a specialized fishery for cod, together if possible with an estimate of the projected catch. Each Contracting Government not mentioned by name in paragraph 2 above shall promptly notify the Executive Secretary if the Contracting Government not mentioned by name in paragraph 2 above shall promptly notify the Executive Secretary of specialized or incidental catches of cod in increments of 100 tons. The Executive Secretary shall promptly inform all other Contracting Governments of such notifications. The Executive Secretary shall notify each Contracting Government of the date on which accumulated catch and estimated catch of cod, the quantity estimated to be taken before closure could be introduced, and the likely incidental catch for the remainder of the year equal 100 percent of the allowable catch designated as for "Others" in paragraph 2 above. Within 10 days of receipt of such notification from the Executive Secretary, each Contracting Government not mentioned by name in paragraph 2 above shall prohibit the catching of cod in Subarea 1 by persons under its jurisdiction, except for small incidental catches.

"4. That the Contracting Governments take appropriate action to ensure that all vessels under their jurisdiction which take cod, record their catches on a daily basis according to position, amount, date, type of gear, amount of effort, i.e., number of sets (or hooks)  $\times$  time gear on the bottom (otter trawl) or fishing (midwater trawl, lines, other gear), discards and disposition of catch.

# (2) Proposal for International Quota Regulation of the Fishery for Cod in Divisions 2G and 2H of Subarea 2 of the Convention Area.

Panel 2 recommends that the Commission transmit to the Depositary Government the following proposal for joint action by the Contracting Governments:

"1. That the Contracting Governments take appropriate action to regulate the catch of cod, Gadus morhua L., by persons under their jurisdiction fishing in Divisions 2G and 2H of Subarea 2 so that the aggregate catch of cod by vessels taking such cod shall not exceed 19,000 metric tons in 1974.

"2. That Competent Authorities from each Contracting Government listed below shall limit in 1974 the catch of cod taken by persons under their jurisdiction to the amount listed from the above-mentioned Divisions:

France	 	500 metric tons
Fed. Rep. Germany .	 	4,000 metric tons
Norway :	 	900 metric tons
Poland	 •	4,500 metric tons
Portugal	 	3,200 metric tons
Romania	 	400 metric tons
Spain	 	500 metric tons
USSR	 	2,600 metric tons
UK	 	800 metric tons
Others	 	1,600 metric tons

"3. That each Contracting Government mentioned by name in paragraph 2 above shall promptly notify the Executive Secretary of the date on which its vessels have ceased a specialized fishery for cod. Each Contracting Government not mentioned by name in paragraph 2 above shall promptly notify the Executive Secretary if its vessels engage in a specialized fishery for cod, together if possible with an estimate of the projected catch. Each Contracting Government not mentioned by name in paragraph 2 above shall promptly notify the Executive Secretary if promptly notify the Executive Secretary of specialized or incidental catches of cod in increments of 100 tons. The Executive Secretary shall promptly inform all other Contracting Governments of such notifications. The Executive Secretary shall notify each Contracting Government of the date on which accumulated catch and estimated catch for the remainder of the year equal 100 percent of the allowable catch designated as for "Others" in paragraph 2 above. Within 10 days of receipt of such notification from the Executive Secretary, each Contracting Government not mentioned by name in paragraph 2 above shall prohibit the catching of cod in Divisions 2G and 2H of Subarea 2 by persons under its jurisdiction, except for small incidental catches.

"4. That the Contracting Governemnts take appropriate action to ensure that all vessels under their jurisdiction which take cod, record their catches on a daily basis according to position, amount, date, type of gear, amount of effort, i.e., number of sets (or hooks)  $\times$  time gear on the bottom (otter trawl) or fishing (midwater trawl, lines, other gear), discards and disposition of catch.

# (3) Proposal for International Quota Regulation of the Fishery for Cod in Division 2J of Subarea 2 and Divisions 3K and 3L of Subarea 3 of the Convention Area

Panels 2 and 3, in joint session, recommend that the Commission transmit to the Depositary Government the following proposal for joint action by the Contracting Governments:

That the Cod Quota Regulation for Division 2J of Subarea 2 and Division 3K and 3L of Subarea 3, adopted at the Twenty-Second Annual Meeting (Annual-Proceedings, Vol. 22, 1971-72, page 45) and entered into force on 1 January 1973 for the year 1973, be replaced by the following:

"1. That the Contracting Governments take appropriate action to regulate the catch of cod, *Gadus morhua* L., by persons under their jurisdiction fishing in Division 2J of Subarea 2 and Divisions 3K and 3L of Subarea 3 so that the aggregate catch of cod by vessels taking such cod shall not exceed 606,700 metric tons in 1974.

"2. That Competent Authorities from each Contracting Government listed below shall limit in 1974 the catch of cod taken by persons under their jurisdiction to the amount listed from the above-mentioned Divisions:

Canada	60,000 metric tons
Denmark	13,800 metric tons
France	51,100 metric tons
Fed. Rep. Germany	43,000 metric tons
Italy	4,000 metric tons
Japan	6,000 metric tons
Norway	18,100 metric tons
Poland	43,400 metric tons
Portugal	133,600 metric tons
Romania	7,000 metric tons
Spain	94,800 metric tons
USSR	94,700 metric tons
UK	20,200 metric tons
Others	17,000 metric tons

"3. That each Contracting Government mentioned by name in paragraph 2 above shall promptly notify the Executive Secretary of the date on which its vessels have ceased a specialized fishery for cod. Each Contracting Government not mentioned by name in paragraph 2 above shall promptly notify the Executive Secretary of its vessels engage in a specialized fishery for cod, together if possible with an estimate of the projected catch. Each Contracting Government not mentioned by name in paragraph 2 above shall promptly notify the Executive Secretary of its vessels engage in a specialized fishery for cod, together if possible with an estimate of the projected catch. Each Contracting Government not mentioned by name in paragraph 2 above shall promptly notify the Executive Secretary of specialized or incidental catches of cod in increments of 100 tons. The Executive Secretary shall promptly inform all other Contracting Governments of such notifications. The Executive Secretary shall notify each Contracting Government of the date on which accumulated catch and estimated catch of cod, the quantity estimated to be taken before closure could be introduced, and the likely incidental catch for the remainder of the year equal 100 percent of the allowable catch designated as for "Others" in paragraph 2 above. Within 10 days of receipt of such notification from the Executive Secretary, each Contracting Government not mentioned by name in paragraph 2 above shall prohibit the catching of cod in Division 2J of Subarea 2 and Divisions 3K and 3L of Subarea 3 by persons under its jurisdiction, except for small incidental catches.

"4. That the Contracting Governments take appropriate action to ensure that all vessels under their jurisdiction which take cod, record their catches on a daily basis according to position, amount, date, type of gear, amount of effort, i.e., number of sets (or hooks)  $\times$  time gear on the bottom (otter trawl) or fishing (midwater trawl, lines, other gear), discards and disposition of catch.

# (4) Proposal for International Quota Regulation of the Fishery for Witch in Division 2J of Subarea 2 and Divisions 3K and 3L of Subarea 3 of the Convention Area

Panels 2 and 3, in joint session, recommend that the Commission transmit to the Depositary Government the following proposal for joint action by the Contracting Governments:

"1. That the Contracting Governments take appropriate action to regulate the catch of witch, *Glyptocephalus cynoglossus* (L.), by persons under their jurisdiction fishing in Division 2J of Subarea 2 and Divisions 3K and 3L of Subarea 3 so that the aggregate catch of witch by vessels taking such witch shall not exceed 19,500 metric tons in 1974.

"2. That Competent Authorities from each Contracting Government listed below shall limit in 1974 the catch of witch taken by persons under their jurisdiction to the amount listed from the above-mentioned Divisions:

Canada	6,000 metric tons
Poland	
USSR	
Others	1,100 metric tons

"3. That each Contracting Government mentioned by name in paragraph 2 above shall promptly notify the Executive Secretary of the date on which its vessles have ceased a specialized fishery for witch. Each Contracting Government not mentioned by name in paragraph 2 above shall promptly notify the Executive Secretary if its vessels engage in a specialized fishery for witch, together if possible with an estimate of the projected catch. Each Contracting Government not mentioned by name in paragraph 2 above shall promptly notify the Executive Secretary if its vessels engage in a specialized fishery for witch, together if possible with an estimate of the projected catch. Each Contracting Government not mentioned by name in paragraph 2 above shall promptly notify the Executive Secretary of specialized or incidental catches of witch in increments of 100 tons. The Executive Secretary shall promptly inform all other Contracting Governments of such notifications. The Executive Secretary shall notify each Contracting Government of the date on which accumulated catch and estimated catch of witch, the quantity estimated to be taken before closure could be introduced, and the likely incidental catch for the remainder of the year equal 100 percent of the allowable catch designated as for "Others" in paragraph 2 above. Within 10 days of receipt of such notification from the Executive Secretary, each Contracting Government not mentioned by name in paragraph 2 above shall prohibit the catching of witch in Division 2J of Subarea 2 and Divisions 3K and 3L of Subarea 3 by persons under its jurisdiction, except for small incidental catches.

"4. That the Contracting Governments take appropriate action to ensure that all vessels under their jurisdiction! which take witch, record their catches on a daily basis according to position, amount, date, type of gear, amount of effort, i.e., number of sets (or hooks)  $\times$  time gear on the bottom (otter trawl) or fishing (midwater trawl, lines, other gear), discards and disposition of catch.

# (5) Proposal for International Quota Regulation of the Fishery for Cod in Division 3M of Subarea 3 of the Convention Area.

Panel 3 recommends that the Commission transmit to the Depositary Government the following proposal for joint action by the Contracting Governments:

"I. That the Contracting Governments take appropriate action to regulate the catch of cod, *Gadus morhua* L., by persons under their jurisdiction fishing in Division 3M of Subarea 3 so that the aggregate catch of cod by vessels taking such cod shall not exceed 40,000 metric tons in 1974.

"2. That Competent Authorities from each Contracting Government listed below shall limit in 1974 the catch of cod taken by persons under their jurisdiction to the amount listed from the above-mentioned Division:

Canada	3,000 metric tons
Denmark	6,700 metric tons
France	8,000 metric tons
Fed. Rep. Germany	500 metric tons
Norway	1,400 metric tons
Poland	
Portugal	8,700 metric tons
Romania	
Spain	2,200 metric tons
USSR	5,700 metric tons
UK	
Others	

"3. That each Contracting Government mentioned by name in paragraph 2 above shall promptly notify the Executive Secretary of the date on which its vessels have ceased a specialized fishery for cod. Each Contracting Government not mentioned by name in paragraph 2 above shall promptly notify the Executive Secretary if its vessels engage in a specialized fishery for cod, together if possible with an estimate of the projected catch. Each Contracting Government not mentioned by name in paragraph 2 above shall promptly notify the Executive Secretary if its vessels engage in a specialized fishery for cod, together if possible with an estimate of the projected catch. Each Contracting Government not mentioned by name in paragraph 2 above shall promptly notify the Executive Secretary of specialized or incidental catches of cod in increments of 100 tons. The Executive Secretary shall promptly inform all other Contracting Governments of such notifications. The Executive Secretary shall notify cach Contracting Government of the date on which accumulated catch and estimated catch of cod, the quantity estimated to be taken before closure could be introduced, and the likely incidental catch for the remainder of the year equal 100 percent of the allowable catch designated as for "Others" in paragraph 2 above. Within 10 days of receipt of such notification from the Executive Secretary, each Contracting Government not mentioned by name in paragraph 2 above shall prohibit the catch of cod in Division 3M of Subarea 3 by persons under its jurisdiction, except for small incidental catches.

"4. That the Contracting Governments take appropriate action to ensure that all vessels under their jurisdiction which take cod, record their catches on a daily basis according to position, amount, date, type of gear, amount of effort, i.e., number of sets (or hooks)  $\times$  time gear on the bottom (otter trawl) or fishing (midwater trawl, lines, other gear), discards and disposition of catch.

# (6) Proposal for International Quota Regulation of the Fishery for Cod in Divisions 3N and 3O of Subarea 3 of the Convention Area.

Panel 3 recommends that the Commission transmit to the Depositary Government the following proposal for joint action by the Contracting Governments:

That the Cod Quota Regulation for Divisions 3N and 30 of Subarea 3 adopted at the Twenty-Second Annual Meeting (Annual Proceedings, Vol. 22, 1971-72, page 47) and entered into force on 1 January 1973 for the year 1973, be replaced by the following:

"1. That the Contracting Governments take appropriate action to regulate the catch of cod, Gadus morhua L., by persons under their jurisdiction fishing in Divisions 3N and 30 of Subarea 3 so that the aggregate catch of cod by vessels taking such cod shall not exceed 100,100 metric tons in 1974.

"2. That Competent Authorities from each Contracting Government listed below shall limit in 1974 the catch of cod taken by persons under their jurisdiction to the amount listed from the above-mentioned Divisions:

Canada	 15,000 metric tons
Denmark	 1,500 metric tons
France	 1,000 metric tons
Norway	 2,500 metric tons
Portugal	 6,500 metric tons
Spain	 45,500 metric tons
USSR	 25,100 metric tons
UK	 1,500 metric tons
Others	 1,500 metric tons

"3. That each Contracting Government mentioned by name in paragraph 2 above shall promptly notify the Executive Secretary of the date on which its vessels have ceased a specialized fishery for cod. Each Contracting Government not mentioned by name in paragraph 2 above shall promptly notify the Executive Secretary if its vessels engage in a specialized fishery for cod, together if possible with an estimate of the projected catch. Each Contracting Government not mentioned by name in paragraph 2 above shall promptly notify the Executive Secretary if its vessels engage in a specialized fishery for cod, together if possible with an estimate of the projected catch. Each Contracting Government not mentioned by name in paragraph 2 above shall promptly notify the Executive Secretary of specialized or incidental catches of cod in increments of 100 tons. The Executive Secretary shall promptly inform all other Contracting Governments of such notifications. The Executive Secretary shall notify each Contracting Government of the date on which accumulated catch and estimated catch of cod, the quantity estimated to be taken before closure could be introduced, and the likely incidental catch for the remainder of the year equal 100 percent of the allowable catch designated as for "Others" in paragraph 2 above. Within 10 days of receipt of such notification from the Executive Secretary, each Contracting Government not mentioned by name in paragraph 2 above shall prohibit the catching of cod in Divisions 3N and 3O of Subarea 3 by persons under its jurisdiction, except for small incidental catches.

"4. That the Contracting Governments take appropriate action to ensure that all vessels under their jurisdiction which take cod, record their catches on a daily basis according to position, amount, date, type of gear, amount of effort, i.e., number of sets (or hooks) X time gear on the bottom (otter trawl) or fishing (midwater trawl, lines, other gear), discards and disposition of catch.

# (7) Proposal for International Quota Regulation of the Fishery for Cod in Subdivision 3Ps of Subarea 3 of the Convention Area

Panel 3 recommends that the Commission transmit to the Depositary Government the following proposal for joint action by the Contracting Governments:

That the Cod Quota Regulation for Subdivision 3Ps of Subarea 3 adopted at the Twenty-Second Annual Meeting (Annual Proceedings, Vol. 22, 1971-72, page 46) and entered into force on 1 January 1973 for the year 1973 be replaced by the following:

"1. That the Contracting Governments take appropriate action to regulate the catch of cod, *Gadus morhua* L., by persons under their jurisdiction fishing in Subdivision 3Ps of Subarea 3 so that the aggregate catch of cod by vessels taking such cod shall not exceed 70,000 metric tons in 1974.

"2. That Competent Authorities from each Contracting Government listed below shall limit in 1974 the catch of cod taken by persons under their jurisdiction to the amount listed from the above-mentioned Subdivision:

Canada	40,000 metric tons
France	5,300 metric tons
Norway	1,700 metric tons
Spain	19,000 metric tons
USSR	
Others	2,000 metric tons

"3. That each Contracting Government mentioned by name in paragraph 2 above shall promptly notify the Executive Secretary of the date on which its vessels have ceased a specialized fishery for cod. Each Contracting Government not mentioned by name in paragraph 2 above shall promptly notify the Executive Secretary if its vessels engage in a specialized fishery for cod, together if possible with an estimate of the projected catch. Each Contracting Government not mentioned by name in paragraph 2 above shall promptly notify the Executive Secretary if specialized or incidental catches of cod in increments of 100 tons. The Executive Secretary shall promptly inform all other Contracting Governments of such notifications. The Executive Secretary shall notify each Contracting Government of the date on which accumulated catch and estimated catch of cod, the quantity estimated to be taken before closure could be introduced, and the likely incidental catch for the remainder of the year equal 100 percent of the allowable catch designated as for "Others" in paragraph 2 above. Within 10 days of receipt of such notification from the Executive Secretary, each Contracting Government not mentioned by name in paragraph 2 above shall prohibit the catching of cod in Subdivision 3Ps of Subarea 3 by persons under its jurisdiction, except for small incidental catches.

"4. That the Contracting Governments take appropriate action to ensure that all vessles under their jurisdiction which take cod, record their catches on a daily basis according to position, amount, date, type of gear, amount of effort, i.e., number of sets (or hooks) X time gear on the bottom (otter trawl) or fishing (midwater trawl, lines, other gear), discards and disposition of catch.

# (8) Proposal for International Quota Regulation of the Fishery for American Plaice in Divisions 3L, 3N and 3O of Subarea 3 of the Convention Area

Panel 3 recommends that the Commission transmit to the Depositary Government the following proposal for joint action by the Contracting Governments:

That the American Plaice Quota Regulation for Divisions 3L, 3N and 30 of Subarea 3 adopted at the Twenty-Second Annual Meeting (Annual Proceedings, Vol. 22, 1971-72, page 51) and entered into force on 1 January 1973 for the year 1973 be replaced by the following:

"1. That the Contracting Governments take appropriate action to regulate the catch of American plaice, Hippoglossoides platessoides (Fab.), by persons under their jurisdiction fishing in Divisions 3L, 3N and 3O of Subarea 3 so that the aggregate catch of American plaice by vessels taking such American plaice shall not exceed 60,000 metric tons in 1974.

"2. That Competent Authorities from each Contracting Government listed below shall limit in 1974 the catch of American plaice taken by persons under their jurisdiction to the amount listed from the above-mentioned Divisions:

Canada	48,000 metric tons
France	900 metric tons
Poland	900 metric tons
USSR	9,000 metric tons
Others	1,200 metric tons

"3. That each Contracting Government mentioned by name in paragraph 2 above shall promptly notify the Executive Secretary of the date on which its vessels have ceased a specialized fishery for American plaice. Each Contracting Government not mentioned by name in paragraph 2 above shall promptly notify the Executive Secretary if its vessels engage in a specialized fishery for American plaice, together if possible with an estimate of the projected catch. Each Contracting Government not mentioned by name in paragraph 2 above shall promptly notify the Executive Secretary of specialized or incidental catches of American plaice in increments of 100 tons. The Executive Secretary shall promptly inform all other Contracting Governments of such notifications. The Executive Secretary shall notify each Contracting Government of the date on which accumulated catch and estimated catch of American plaice, the quantity estimated to be taken before closure could be introduced, and the likely incidental catch for the remainder of the year equal 100 percent of the allowable catch designated as for "Others" in paragraph 2 above. Within 10 days of receipt of such notification from the Executive Secretary, each Contracting Government not mentioned by name in paragraph 2 above shall prohibit the catching of American plaice in Divisions 3L, 3N and 3O of Subarea 3 by persons under its jurisdiction, except for small incidental catches.

"4. That the Contracting Governments take appropriate action to ensure that all vessels under their jurisdiction which take American plaice, record their catches on a daily basis according to position, amount, date, type of gear, amount of effort, i.e., number of sets (or hooks) X time gear on the bottom (otter trawl) or fishing (midwater trawl, lines, other gear), discards and disposition of catch.

# (9) Proposal for International Quota Regulation of the Fishery for Yellowtail Flounder in Divisions 3L, 3N and 3O of Subarea 3 of the Convention Area

Panel 3 recommends that the Commission transmit to the Depositary Government the following proposal for joint action by the Contracting Governments:

That the Yellowtail Flounder Quota Regulation for Divisions 3L, 3N and 3O of Subarea 3 adopted at the Twenty-Second Annual Meeting (Annual Proceedings, Vol. 22, 1971-72, page 52) and entered into force on 1 January 1973 for the year 1973, be replaced by the following:

"1. That the Contracting Governments take appropriate action to regulate the catch of yellowtail flounder, *Limanda ferruginea* (Storer), by persons under their jurisdiction fishing in Divisions 3L, 3N and 3O of Subarea 3 so that the aggregate catch of yellowtail flounder by vessels taking such yellowtail flounder shall not exceed 40,000 metric tons in 1974.

"2. That Competent Authorities from each Contracting Government listed below shall limit in 1974 the catch of yellowtail flounder taken by persons under their jurisdiction to the amount listed from the above-mentioned Divisions:

Canada	32,400 metric tons
USSR	7,000 metric tons
Others	600 metric tons

"3. That each Contracting Government mentioned by name in paragraph 2 above shall promptly notify the Executive Secretary of the date on which its vessels have ceased a specialized fishery for yellowtail flounder. Each Contracting Government not mentioned by name in paragraph 2 above shall promptly notify the Executive Secretary if its vessels engage in a specialized fishery for yellowtail flounder, together if possible with an estimate of the projected catch. Each Contracting Government not mentioned by name in paragraph 2 above shall promptly notify the Executive Secretary of specialized or incidental catches of yellowtail flounder in increments of 100 tons. The Executive Secretary shall promptly inform all other Contracting Governments of such notifications. The Executive Secretary shall notify each Contracting Government of the date on which accumulated catch and estimated catch of yellowtail flounder, the quantity estimated to be taken before closure could be introduced, and the likely incidental catch for the remainder of the year equal 100 percent of the allowable catch designated as for "Others" in paragraph 2 above. Within 10 days of receipt of such notification from the Executive Secretary, each Contracting Government not mentioned by name in paragraph 2 above shall prohibit the catching of yellowtail flounder in Divisions 3L, 3N and 3O of Subarea 3 by persons under its jurisdiction, except for small incidental catches.

"4. That the Contracting Governments take appropriate action to ensure that all vessels under their jurisdiction which take yellowtail flounder, record their catches on a daily basis according to position, amount, date, type of gear, amount of effort, i.e., number of sets (or hooks)  $\times$  time gear on the bottom (otter trawl) or fishing (midwater trawl, lines, other gear), discards and disposition of catch.

#### (10) Proposal for International Quota Regulation of the Fishery for Redfish in Division 3M of Subarea 3 of the Convention Area

Panel 3 recommends that the Commission transmit to the Depositary Government the following proposal for joint action by the Contracting Governments:

"1. That the Contracting Governments take appropriate action to regulate the catch of redfish, Sebastes marinus (L.), by persons under their jurisdiction fishing in Division 3M of Subarea 3 so that the aggregate catch of redfish by vessels taking such redfish shall not exceed 40,000 metric tons in 1974.

"2. That Competent Authorities from each Contracting Government listed below shall limit in 1974 the catch of redfish taken by persons under their jurisdiction to the amount listed from the above-mentioned Division:

Canada	
USSR	
Others	9,000 metric tons

"3. That each Contracting Government mentioned by name in paragraph 2 above shall promptly notify the Executive Secretary of the date on which its vessels have ceased a specialized fishery for redfish. Each Contracting Government not mentioned by name in paragraph 2 above shall promptly notify the Executive Secretary if its vessels engage in a specialized fishery for redfish, together if possible with an estimate of the projected catch. Each Contracting Government not mentioned by name in paragraph 2 above shall promptly notify the Executive Secretary if its vessels engage in a specialized fishery for redfish, together if possible with an estimate of the projected catch. Each Contracting Government not mentioned by name in paragraph 2 above shall promptly notify the Executive Secretary of specialized or incidental catches of redfish in increments of 100 tons. The Executive Secretary shall promptly inform all other Contracting Governments of such notifications. The Executive Secretary shall notify each Contracting Government of the date on which accumulated catch and estimated catch for the remainder of the year equal 100 percent of the allowable catch designated as for "Others" in paragraph 2 above. Within 10 days of receipt of such notification from the Executive Secretary, each Contracting Government not mentioned by name in paragraph 2 above shall prohibit the catching of redfish in Division 3M of Subarea 3 by persons under its jurisdiction, except for small incidental catches.

"4. That the Contracting Governments take appropriate action to ensure that all vessels under their jurisdiction which take redfish, record their catches on a daily basis according to position, amount, date, type of gear, amount of effort, i.e., number of sets (or hooks) X time gear on the bottom (otter trawl) or fishing (midwater trawl, lines, other gear), discards and disposition of eatch.

#### (11) Proposal for International Quota Regulation of the Fishery for Redfish in Divisions 3L and 3N of Subarea 3 of the Convention Area

Panel 3 recommends that the Commission transmit to the Depositary Government the following proposal for joint action by the Contracting Governments:

"1. That the Contracting Governments take appropriate action to regulate the catch of redfish, Sebastes marinus (L.), by persons under their jurisdiction fishing in Divisions 3L and 3N of Subarea 3 so that the aggregate catch of redfish by vessels taking such redfish shall not exceed 28,000 metric tons in 1974.

"2. That Competent Authorities from each Contracting Government listed below shall limit in 1974 the catch of redfish taken by persons under their jurisdiction to the amount listed from the above-mentioned Divisions:

Canada	 3,000 metric tons
Japan	 800 metric tons
Poland	 1,000 metric tons
USSR	 20,500 metric tons
Others	 2,700 metric tons

"3. That each Contracting Government mentioned by name in paragraph 2 above shall promptly notify the Executive Secretary of the date on which its vessels have ceased a specialized fishery for redfish. Each Contracting Government not mentioned by name in paragraph 2 above shall promptly notify the Executive Secretary if its vessels engage in a specialized fishery for redfish, together if possible with an estimate of the projected catch. Each Contracting Government not mentioned by name in paragraph 2 above shall promptly notify the Executive Secretary if its vessels engage in a specialized fishery for redfish, together if possible with an estimate of the projected catch. Each Contracting Government not mentioned by name in paragraph 2 above shall promptly notify the Executive Secretary shall promptly inform all other Contracting Governments of such notifications. The Executive Secretary shall notify each Contracting Government of the date on which accumulated catch and estimated catch of redfish, the quantity estimated to be taken before closure could be introduced, and the likely incidental catch for the remainder of the year equal 100 percent of the allowable catch designated as for "Others" in paragraph 2 above. Within 10 days of receipt of such notification from the Executive Secretary, each Contracting Government not mentioned by name in paragraph 2 above shall prohibit the catching of redfish in Divisions 3L and 3N of Subarea 3 by persons under its jurisdiction, except for small incidental catches.

"4. That the Contracting Governments take appropriate action to ensure that all vessels under their jurisdiction which take redfish, record their catches on a daily basis according to position, amount, date, type of gear, amount of effort, i.e., number of sets (or hooks) X time gear on the bottom (otter trawl) or fishing (midwater trawl, lines, other gear), discards and disposition of catch.

#### (12) Proposal for International Quota Regulation of the Fishery for Redfish in Division 30 of Subarea 3 of the Convention Area

Panel 3 recommends that the Commission transmit to the Depositary Government the following proposal for joint action by the Contracting Governments:

"1. That the Contracting Governments take appropriate action to regulate the catch of redfish, Sebastes marinus (L.), by persons under their jurisdiction fishing in Division 30 of Subarea 3 so that the aggregate catch of redfish by vessels taking such redfish shall not exceed 16,000 metric tons in 1974.

"2. That Competent Authorities from each Contracting Government listed below shall limit in 1974 the catch of redfish taken by persons under their jurisdiction to the amount listed from the above-mentioned Division:

Canada	3,000 metric tons
USSR	11,800 metric tons
Others	1,200 metric tons

"3. That each Contracting Government mentioned by name in paragraph 2 above shall promptly notify the Executive Secretary of the date on which its vessels have ceased a specialized fishery for redfish. Each Contracting Government not mentioned by name in paragraph 2 above shall promptly notify the Executive Secretary if its vessels engage in a specialized fishery for redfish, together if possible with an estimate of the projected catch. Each Contracting Government not mentioned by name in paragraph 2 above shall promptly notify the Executive Secretary if its vessels engage in a specialized fishery for redfish, together if possible with an estimate of the projected catch. Each Contracting Government not mentioned by name in paragraph 2 above shall promptly notify the Executive Secretary of specialized or incidental catches of redfish in increments of 100 tons. The Executive Secretary shall promptly inform all other Contracting Governments of such notifications. The Executive Secretary shall notify each Contracting Government of the date on which accumulated catch and estimated catch of redfish, the quantity estimated to be taken before closure could be introduced, and the likely incidental catch for the remainder of the year equal 100 percent of the allowable catch designated as for "Others" in paragraph 2 above. Within 10 days of receipt of such notification from the Executive Secretary, each Contracting Government not mentioned by name in paragraph 2 above shall prohibit the catching of redfish in Division 30 of Subarea 3 by persons under its jurisdiction, except for small incidental catches.

"4. That the Contracting Governments take appropriate action to ensure that all vessels under their jurisdiction which take redfish, record their catches on a daily basis according to position, amount, date, type of gear, amount of effort, i.e., number of sets (or hooks)  $\times$  time gear on the botton (otter trawl) or fishing (midwater trawl, lines, other gear), discards and disposition of catch.

#### (13) Proposal for International Quota Regulation of the Fishery for Redfish in Division 3P of Subarea 3 of the Convention Area

Panel 3 recommends that the Commission transmit to the Depositary Government the following proposal for joint action by the Contracting Governments:

"1. That the Contracting Governments take appropriate action to regulate the catch of redfish, Sebastes marinus (L.), by persons under their jurisdiction fishing in Division 3P of Subarea 3 so that the aggregate catch of redfish by vessels taking such redfish shall not exceed 25,000 metric tons in 1974.

"2. That Competent Authorities from each Contracting Government listed below shall limit in 1974 the catch of redfish taken by persons under their jurisdiction to the amount listed from the above-mentioned Division:

Canada	 		9,500 metric tons
Others	 		1,700 metric tons
Others	 • • • • • • • •	••••••	1,00 metric tons

"3. That each Contracting Government mentioned by name in paragraph 2 above shall promptly notify the Executive Secretary of the date on which its vessels have ceased a specialized fishery for redfish. Each Contracting Government not mentioned by name in paragraph 2 above shall promptly notify the Executive Secretary if its vessels engage in a specialized fishery for redfish, together if possible with an estimate of the projected catch. Each Contracting Government not mentioned by name in paragraph 2 above shall promptly notify the Executive Secretary if its vessels engage in a specialized fishery for redfish, together if possible with an estimate of the projected catch. Each Contracting Government not mentioned by name in paragraph 2 above shall promptly notify the Executive Secretary of specialized or incidental catches of redfish in increments of 100 tons. The Executive Secretary shall promptly inform all other Contracting Governments of such notifications. The Executive Secretary shall notify each Contracting Government of the date on which accumulated catch and estimated catch of redfish, the quantity estimated to be taken before closure could be introduced, and the likely incidental catch for the remainder of the year equal 100 percent of the allowable catch designated as for "Others" in paragraph 2 above. Within 10 days of receipt of such notification from the Executive Secretary, each Contracting Government not mentioned by name in paragraph 2 above shall prohibit the catching of redfish in Division 3P of Subarea 3 by persons under its jurisdiction, except for small incidental catches.

"4. That the Contracting Governments take appropriate action to ensure that all vessels under their jurisdiction which take redfish, record their catches on a daily basis according to position, amount, date, type of gear, amount of effort, i.e., number of sets (or hooks)  $\times$  time gear on the bottom (otter trawl) or fishing (midwater trawl, lines, other gear), discards and disposition of catch.

#### (14) Proposal for International Quota Regulation of the Fishery for Witch in Divisions 3N and 3O of Subarea 3 of the Convention Area

Panel 3 recommends that the Commission transmit to the Depositary Government the following proposal for joint action by the Contracting Governments:

"1. That the Contracting Governments take appropriate action to regulate the catch of witch, *Glyptocephalus cynoglossus* (L.), by persons under their jurisdiction fishing in Divisions 3N and 30 of Subarea 3 so that the aggregate catch of witch by vessels taking such witch shall not exceed 10,000 metric tons in 1974.

"2. That Competent Authorities from each Contracting Government listed below shall limit in 1974 the catch of witch taken by persons under their jurisdiction to the amount listed from the above-mentioned Divisions:

Canada	4,500 metric tons
USSR	
Others	600 metric tons

"3. That each Contracting Government mentioned by name in paragraph 2 above shall promptly notify the Executive Secretary of the date on which its vessels have ceased a specialized fishery for witch. Each Contracting Government not mentioned by name in paragraph 2 above shall promptly notify the Executive Secretary if its vessels engage in a specialized fishery for witch, together if possible with an estimate of the projected catch. Each Contracting Government not mentioned by name in paragraph 2 above shall promptly notify the Executive Secretary if its vessels engage in a specialized fishery for witch, together if possible with an estimate of the projected catch. Each Contracting Government not mentioned by name in paragraph 2 above shall promptly notify the Executive Secretary shall promptly inform all other Contracting Governments of such notifications. The Executive Secretary shall notify each Contracting Government of the date on which accumulated catch and estimated catch of witch, the quantity estimated to be taken before closure could be introduced, and the likely incidental catch for the remainder of the year equal 100 percent of the allowable catch designated as for "Others" in paragraph 2 above. Within 10 days of receipt of such notification from the Executive Secretary, each Contracting Government not mentioned by name in paragraph 2 above shall prohibit the catching of witch in Divisions 3N and 30 of Subarea 3 by persons under its jurisdiction, except for small incidental catches.

"4. That the Contracting Governments take appropriate action to ensure that all vessels under their jurisdiction which take witch, record their catches on a daily basis according to position, amount, date, type of gear, amount of effort, i.e., number of sets (or hooks)  $\times$  time gear on the bottom (otter trawl) or fishing (midwater trawl, lines, other gear), discards and disposition of catch.

#### (15) Proposal for International Quota Regulation of the Fishery for Witch in Subdivision 3Ps of Subarea 3 of the Convention Area

Panel 3 recommends that the Commission transmit to the Depositary Government the following proposal for joint action by the Contracting Governments:

"1. That the Contracting Governments take appropriate action to regulate the catch of witch, *Clyptocephalus cynoglossus* (L.), by persons under their jurisdiction fishing in Subdivision 3Ps of Subarea 3 so that the aggregate catch of witch by vessels taking such witch shall not exceed 3,000 metric tons in 1974.

"2. That Competent Authorities from each Contracting Government listed below shall limit in 1974 the catch of witch taken by persons under their jurisdiction to the amount listed from the above-mentioned Subdivision:

Canada	2,500 metric tons
France	400 metric tons
Others	100 metric tons

"3. That each Contracting Government mentioned by name in paragraph 2 above shall promptly notify the Executive Secretary of the date on which its vessels have ceased a specialized fishery for witch. Each Contracting Government not mentioned by name in paragraph 2 above shall promptly notify the Executive Secretary if its vessels engage in a specialized fishery for witch, together if possible with an estimate of the projected catch. Each Contracting Government not mentioned by name in paragraph 2 above shall promptly notify the Executive Secretary of specialized or incidental catches of witch in increments of 100 tons. The Executive Secretary shall promptly inform all other Contracting Governments of such notifications. The Executive Secretary shall notify each Contracting Government of the date on which accumulated catch and estimated catch of witch, the quantity estimated to be taken before closure could be introduced, and the likely incidental catch for the remainder of the year equal 100 percent of the allowable catch designated as for "Others" in paragraph 2 above. Within 10 days of receipt of such notification from the Executive Secretary, each Contracting Government not mentioned by name in paragraph 2 above shall prohibit the catching of witch in Subdivision 3Ps of Subarea 3 by persons under its jurisdiction, except for small incidental catches.

"4. That the Contracting Governments take appropriate action to ensure that all vessels under their jurisdiction which take witch, record their catches on a daily basis according to position, amount, date, type of gear, amount of effort, i.e., number of sets (or hooks)  $\times$  time gear on the bottom (otter trawl) or fishing (midwater trawl, lines, other gear), discards and disposition of catch.

#### (16) Proposal for International Quota Regulation of the Fishery for Cod in Subdivision 4Vs and Division 4W of Subarea 4 of the Convention Area

Panel 4 recommends that the Commission transmit to the Depositary Government the following proposal for joint action by the Contracting Governments:

That the Cod Quota Regulation for Subdivision 4Vs and Division 4W of Subarea 4 adopted at the Twenty-Second Annual Meeting (Annual Proceedings, Vol. 22, 1971-72, page 48) and entered into force on 1 January 1973 for the year 1973, be replaced by the following:

"1. That the Contracting Governments take appropriate action to regulate the catch of cod, Gadus morhua L., by persons under their jurisdiction fishing in Subdivision 4Vs and Division 4W of Subarea 4 so that the aggregate catch of cod by vessels taking such cod shall not exceed 60,000 metric tons in 1974.

"2. That Competent Authorities from each Contracting Government listed below shall limit in 1974 the catch of cod taken by persons under their jurisdiction to the amount listed from the above-mentioned Subdivision and Division:

Canada	. 24,250 metric tons
Denmark	. 1,150 metric tons
Denmark	1,500 metric tons
Spain	
USSR	
Others	. 1,700 metric tons

"3. That each Contracting Government mentioned by name in paragraph 2 above shall promptly notify the Executive Secretary of the date on which its vessels have ceased a specialized fishery for cod. Each Contracting Government not mentioned by name in paragraph 2 above shall promptly notify the Executive Secretary if its vessels engage in a specialized fishery for cod, together if possible with an estimate of the projected catch. Each Contracting Government not mentioned by name in paragraph 2 above shall promptly notify the Executive Secretary if its vessels engage in a specialized fishery for cod, together if possible with an estimate of the projected catch. Each Contracting Government not mentioned by name in paragraph 2 above shall promptly notify the Executive Secretary of specialized or incidental catches of cod in increments of 100 tons. The Executive Secretary shall promptly inform all other Contracting Governments of such notifications. The Executive Secretary shall notify each Contracting Government of the date on which accumulated catch and estimated catch of cod, the quantity estimated to be taken before closure could be introduced, and the likely incidental catch for the remainder of the year equal 100 percent of the allowable catch designated as for "Others" in paragraph 2 above. Within 10 days of receipt of such notification from the Executive Secretary, each Contracting Government not mentioned by name in paragraph 2 above shall prohibit the catching of cod in Subdivision 4Vs and Division 4W of Subarea 4 by persons under its jurisdiction, except for small incidental catches.

"4. That the Contracting Governments take appropriate action to ensure that all vessels under their jurisdiction which take cod, record their catches on a daily basis according to position, amount, date, type of gear, amount of effort, i.e., number of sets (or hooks)  $\times$  time gear on the bottom (otter trawl) or fishing (midwater trawl, lines, other gear), discards and disposition of catch.

#### (17) Proposal for International Quota Regulation of the Fishery for Haddock in Division 4X of Subarea 4 of the Convention Area

Panel 4 recommends that the Commission transmit to the Depositary Government the following proposal for joint action by the Contracting Governments:

That the Haddock Quota Regulation for Division 4X of Subarea 4, adopted at the Twenty-First Annual Meeting (Annual Proceedings, Vol. 21, 1970-71, pages 33-34) and amended at the Twenty-Second Annual Meeting (Annual Proceedings, Vol. 22, 1971-72, page 61) be replaced by the following:

"1. That the Contracting Governments take appropriate action to prohibit the catch of haddock, *Melanogrammus aeglefinus* (L.), by persons under their jurisdiction fishing in Division 4X of Subarea 4, except as provided in paragraph 2.

"2. That in order to avoid impairment of fisheries conducted for other species and which take small quantities of haddock incidentally, the Contracting Governments may permit persons under their jurisdiction to have in possession on board a vessel fishing for other species, haddock caught in Division 4X of Subarea 4 in amounts not exceeding 5,000 lb or 2,268 kg, or 10% by weight, of all other fish on board caught in Division 4X of Subarea 4, whichever is greater.

"3. That the Contracting Governments take appropriate action to prohibit persons under their jurisdiction from using fishing gear in a manner capable of catching demersal species during March, April and May of 1974 in that part of Division 4X of Subarea 4 bounded by straight lines connecting the following coordinates in the order listed:

65°44′W, 42°04′N 64°30′W, 42°40′N 64°30′W, 43°00′N 66°32′W, 43°00′N 66°32′W, 42°20′N 66°00′W, 42°20′N

"4. That the application to haddock of the trawl regulations effective in Division 4X of Subarea 4 be suspended during the period that prohibitions on the catching of haddock are in effect."

#### (18) Proposal for International Quota Regulation of the Fishery for Haddock in Divisions 4V and 4W of Subarea 4 of the Convention Area

Panel 4 recommends that the Commission transmit to the Depositary Government the following proposal for joint action by the Contracting Governments:

That the Haddock Quota Regulation for Division 4W of Subarea 4, adopted at the Twenty-First Annual Meeting (Annual Proceedings, Vol. 21, 1970-71, pages 34-35) and amended at the Twenty-Second Annual Meeting (Annual Proceedings, Vol. 22, 1971-72, page 62) be replaced by the following:

"1. That the Contracting Governments take appropriate action to prohibit the catching of haddock, *Melanogrammus aeglefinus* (L.), by persons under their jurisdiction fishing in Divisions 4V and 4W of Subarea 4, except as provided in paragraph 2.

"2. That in order to avoid impairment of fisheries conducted for other species and which take small quantities of haddock incidentally, the Contracting Governments may permit persons under their jurisdiction to have in possession on board a vessel fishing for other species, haddock caught in Divisions 4V and 4W of Subarea 4 in amounts not exceeding 5,000 lb or 2,268 kg, or 10% by weight, of all other fish on board caught in Divisions 4V and 4W of Subarea 4, whichever is greater.

"3. That the application to haddock of the trawl regulations effective in Divisions 4V and 4W of Subarea 4 be suspended during the period these prohibitions on the catching of haddock are in effect."

#### (19) Proposal for International Quota Regulation of the Fishery for Herring in Division 4V and the northern part of Division 4W of Subarea 4 of the Convention Area

Panel 4 recommends that the Commission transmit to the Depositary Government the following proposal for joint action by the Contracting Governments:

"1. That the Contracting Governments take appropriate action to regulate the catch of herring, Clupea harengus L., by persons under their jurisdiction fishing in that portion of Division 4W north of  $44^{\circ}52'$ N latitude and in Division 4V of Subarea 4 so that the aggregate catch of herring by vessels taking such herring shall not exceed 45,000 metric tons in 1974.

"2. That Competent Authorities from each Contracting Government listed below shall limit in 1974 the catch of herring taken by persons under their jurisdiction to the amount listed from the above-mentioned area:

Canada	1,500 metric tons
USSROthers	

"3. That each Contracting Government mentioned by name in paragraph 2 above shall promptly notify the Executive Secretary of the date on which its vessels have ceased a specialized fishery for herring. Each Contracting Government not mentioned by name in paragraph 2 above shall promptly notify the Executive Secretary if its vessels engage in a specialized fishery for herring, together if possible with an estimate of the projected catch. Each Contracting Government not mentioned by name in paragraph 2 above shall promptly notify the Executive Secretary if its vessels engage in a specialized fishery for herring, together if possible with an estimate of the projected catch. Each Contracting Government not mentioned by name in paragraph 2 above shall promptly notify the Executive Secretary of specialized or incidental catches of herring in increments of 100 tons. The Executive Secretary shall promptly inform all other Contracting Governments of such notifications. The Executive Secretary shall notify each Contracting Government of the date on which accumulated catch and estimated catch of herring, the quantity estimated to be taken before closure could be introduced, and the likely incidental catch for the remainder of the year equal 100 percent of the allowable catch designated as for "Others" in paragraph 2 above. Within 10 days of receipt of such notification from the Executive Secretary, each Contracting Government not mentioned by name in paragraph 2 above shall prohibit the catching of herring in Division 4W and the northern part of Division 4V of Subarea 4 by persons under its jurisdiction, except for small incidental catches.

"4. That the Contracting Governments take appropriate action to ensure that all vessels under their jurisdiction which take herring, record their catches on a daily basis according to position, amount, date, type of gear, amount of effort, i.e., number of sets (or hooks)  $\times$  time gear on the bottom (otter trawl) or fishing (midwater trawl, lines, other gear), discards and disposition of catch.

# (20) Proposal for International Quota Regulation of the Fishery for Herring in Division 4X and the southern part of Division 4W of Subarea 4 of the Convention Area

Panel 4, in joint session with Panel 5, recommends that the Commission transmit to the Depositary Government the following proposal for joint action by the Contracting Governments:

That the Herring Quota Regulation for Division 4X and the southern part of Division 4W of Subarea 4, adopted at the Special Commission Meeting, 26 January 1973 (Special Commission Meeting Proceedings No. 3, Appendix III) and pending entry into force for the year 1973, be replaced by the following:

"1. That the Contracting Governments take appropriate action to regulate the catch of herring, Clupea harengus L., by persons under their jurisdiction fishing in that portion of Division 4W south of  $44^{\circ}52'$ N latitude and in Division 4X of Subarea 4 so that the aggregate catch of herring by vessels from this stock shall not exceed in 1974 an amount which is decided at a Special Meeting in January 1974 by unanimous vote of the Contracting Governments present and voting, which amount shall become effective for all Contracting Governments upon receipt of notification from the Depositary Government of the amount decided by the Commission.

"2. That Competent Authorities from each Contracting Government shall limit in 1974 the catch of herring taken by persons under their jurisdiction from the above-mentioned stock to the amount which is decided for each Contracting Government at the above-mentioned Special Meeting by unanimous vote of the Contracting Governments present and voting, which amounts shall become effective for all Contracting Governments upon receipt of notification from the Depositary Government of the amounts decided by the Commission.

"3. That each Contracting Government for which a catch is allocated by the Commission pursuant to paragraph 2 above shall promptly notify the Executive Secretary of the date on which its vessels have ceased a specialized fishery for herring. Each Contracting Government for which a catch is not allocated by the Commission pursuant to paragraph 2 above shall promptly notify the Executive Secretary if its vessels engage in a specialized fishery for herring, together if possible with an estimate of the projected catch. Each Contracting Government for which a catch is not allocated by the Commission pursuant to paragraph 2 above shall promptly notify the Executive Secretary if its vessels engage in a specialized fishery for herring, together if possible with an estimate of the projected catch. Each Contracting Government for which a catch is not allocated by the Commission pursuant to paragraph 2 above shall promptly notify the Executive Secretary of specialized or incidental catches of herring in increments of 100 tons. The Executive Secretary shall promptly inform all other Contracting Governments of such notifications. The Executive Secretary shall notify each Contracting Government of the date on which accumulated catch and estimated catch of herring, the quantity estimated to be taken before closure could be introduced, and the likely incidental catch for the remainder of the year equal 100 percent of the allowable catch which may be designated for "Others" by the Commission pursuant to paragraph 2 above. Within 10 days of receipt of such notification from the Executive Secretary, each Contracting Government for which a catch is not allocated by the Commission pursuant to paragraph 2 above shall prohibit the catching of herring from that portion of Division 4W south of 44° 52'N latitude and in Division 4X of Subarea 4 by persons under its jurisdiction, except for small incidental catches.

"4. That the Contracting Governments take appropriate action to ensure that all vessels under their jurisdiction which take herring, record their catches on a daily basis according to position, amount, date, type of gear, amount of effort, i.e., number of sets (or hooks)  $\times$  time gear on the bottom (otter trawl) or fishing (midwater trawl, lines, other gear), discards and disposition of catch.

"5. That the allocations decided by the Commission pursuant to paragraph 2 above are without prejudice to future allocations of catches for this or other stocks. Nothing in this proposal shall prejudice the future possibility of the Contracting Governments entering into mutual arrangements for the management of the allocations of herring catches or re-allocating the allocations of herring catches decided by the Commission pursuant to paragraph 2 above by such agreements as they may enter into, all such arrangements and re-allocations to be reported to all  $o_s$  her Contracting Governments through the Executive Secretary.

"6. This proposal shall become effective only at such times as the herring quota proposals adopted 16 June 1973 by Panel 5 for the Georges Bank stock and for herring in Division 5Y of Subarea 5 become effective."

#### (21) Proposal for International Quota Regulation of the Fishery for Redfish in Divisions 4V, 4W and 4X of Subarea 4 of the Convention Area

Panel 4 recommends that the Commission transmit to the Depositary Government the following proposal for joint action by the Contracting Governments:

"1. That the Contracting Governments take appropriate action to regulate the catch of redfish, Sebastes marinus (L.), by persons under their jurisdiction fishing in Divisions 4V, 4W and 4X of Subarea 4 so that the aggregate catch of redfish by vessels taking such redfish shall not exceed 40,000 metric tons in 1974.

"2. That Competent Authorities from each Contracting Government listed below shall limit in 1974 the catch of redfish taken by persons under their jurisdiction to the amount listed from the above-mentioned Divisions:

 Canada	 ••••	20,000 metric tons
USA	 	10,000 metric tons
Others	 	1,100 metric tons

"3. That each Contracting Government mentioned by name in paragraph 2 above shall promptly notify the Executive Secretary of the date on which its vessels have ceased a specialized fishery for redfish. Each Contracting Government not mentioned by name in paragraph 2 above shall promptly notify the Executive Secretary if its vessels engage in a specialized fishery for redfish, together if possible with an estimate of the projected catch. Each Contracting Government not mentioned by name in paragraph 2 above shall promptly notify the Executive Secretary of specialized or incidental catches of redfish in increments of 100 tons. The Executive Secretary shall promptly inform all other Contracting Governments of such notifications. The Executive Secretary shall notify each Contracting Government of the date on which accumulated catch and estimated catch of redfish, the quantity estimated to be taken before closure could be introduced, and the likely incidental catch for the remainder of the year equal 100 percent of the allowable catch designated as for "Others" in paragraph 2 above. Within 10 days of receipt of such notification from the Executive Secretary, each Contracting Government not mentioned by name in paragraph 2 above shall prohibit the catching of redfish in Divisions 4V, 4W and 4X of Subarea 4 by persons under its jurisdiction, except for small incidental catches.

"4. That the Contracting Governments take appropriate action to ensure that all vessels under their jurisdiction which take redfish, record their eatches on a daily basis according to position, amount, date, type of gear, amount of effort, i.e., number of sets (or hooks)  $\times$  time gear on the bottom (otter trawl) or fishing (midwater trawl, lines, other gear), discards and disposition of catch.

#### (22) Proposal for International Quota Regulation of the Fishery for Silver Hake in Division 4V, 4W and 4X of Subarea 4 of the Convention Area

Panel 4 recommends that the Commission transmit to the Depositary Government the following proposal for joint action by the Contracting Governments:

"1. That the Contracting Governments take appropriate action to regulate the catch of silver hake, *Merluccius bilinearis* (Mitch.), by persons under their jurisdiction fishing in Divisions 4V, 4W and 4X of Subarea 4 so that the aggregate catch of silver hake by vessels taking such silver hake shall not exceed 100,000 metric tons in 1974.

"2. That Competent Authorities from each Contracting Government listed below shall limit in 1974 the catch of silver hake taken by persons under their jurisdiction to the amount listed from the above-mentioned Divisions:

Canada	2,000 metric tons
USSR	90,000 metric tons
Others	8,000 metric tons

"3. That each Contracting Government mentioned by name in paragraph 2 above shall promptly notify the Executive Secretary of the date on which its vessels have ceased a specialized fishery for silver hake. Each Contracting Government not mentioned by name in paragraph 2 above shall promptly notify the Executive Secretary if its vessels engage in a specialized fishery for silver hake, together if possible with an estimate of the projected catch. Each Contracting Government not mentioned by name in paragraph 2 above shall promptly notify the Executive Secretary of specialized or incidental catches of silver hake in increments of 100 tons. The Executive Secretary shall promptly inform all other Contracting Governments of such notifications. The Executive Secretary shall notify each Contracting Government of the date on which accumulated catch and estimated catch of silver hake, the quantity estimated to be taken before closure could be introduced, and the likely incidental catch for the remainder of the ycar equal 100 percent of the allowable catch designated as for "Others" in paragraph 2 above. Within 10 days of receipt of such notification from the Executive Secretary each Contracting Government not mentioned by name in paragraph 2 above shall prohibit the catching of silver hake in Divisions 4V, 4W and 4X of Subarea 4 by persons under its jurisdiction, except for small incidental catches.

"4. That the Contracting Governments take appropriate action to ensure that all vessels under their jurisdiction which take silver hake, record their catches on a daily basis according to position, amount, date, type of gear, amount of effort, i.e., number of sets (or hooks)  $\times$  time gear on the bottom (otter trawl) or fishing (midwater trawl, lines, other gear), discards and disposition of catch.

#### (23) Proposal for International Quota Regulation of the Fishery for Yellowtail Flounder, Witch and American Plaice Combined in Divisions 4V, and 4W and 4X of Subarea 4 of the Convention Area

Panel 4 recommends that the Commission transmit to the Depositary Government the following proposal for joint action by the Contracting Governments:

"1. That the Contracting Governments take appropriate action to regulate the catch of yellowtail flounder, *Limanda ferruginea* (Storer), witch, *Glyptocephalus cynoglossus* (L.), and American plaice, *Hippoglossoides platessoides* (Fab.), by persons under their jurisdiction fishing in Divisions 4V, 4W and 4X of Subarea 4 so that the aggregate catch of yellowtail flounder, witch and American plaice shall not exceed 32,000 metric tons in 1974.

"2. That Competent Authorities from each Contracting Government listed below shall limit in 1974 the catch of yellowtail flounder, witch and American plaice taken by persons under their jurisdiction to the amount listed from the above-mentioned Divisions:

Canada	
France	
USSR	10,500 metric tons
USA	
Others	700 metric tons

"3. That each Contracting Government mentioned by name in paragraph 2 above shall promptly notify the Executive Secretary of the date on which its vessels have ceased a specialized fishery for yellowtail flounder, witch and American plaice. Each Contracting Government not mentioned by name in paragraph 2 above shall promptly notify the Executive Secretary if its vessels engage in a specialized fishery for yellowtail flounder, witch and American plaice, together if possible with an estimate of the protected catch. Each Contracting Government not mentioned by name in paragraph 2 above shall promptly notify the Executive Secretary of specialized or incidental catches of yellowtail flounder, witch and American plaice, incomparison of the date on which accumulated catch and estimated catch of yellowtail flounder, witch and American plaice, the quantity estimated to be taken before closure could be introduced, and the likely incidental catch for the remainder of the year equal 100 percent of the allowable catch designated as for "Others" in paragraph 2 above. Within 10 days of receipt of such notification from the Executive Secretary, each Contracting Government not mentioned by name in paragraph 2 above shall prohibit the catching of yellowtail flounder, witch and American plaice, the quantity estimated to be taken before closure could be introduced, and the likely incidental catch for the remainder of the year equal 100 percent of the allowable catch designated as for "Others" in paragraph 2 above. Within 10 days of receipt of such notification from the Executive Secretary, each Contracting Government not mentioned by name in paragraph 2 above shall prohibit the catching of yellowtail flounder, witch and American plaice in Divisions 4V, 4W and 4X of Subarea 4 by persons under its jurisdiction, except for small incidental catches.

"4. That the Contracting Governments take appropriate action to ensure that all vessels under their jurisdiction which take yellowtail flounder, witch and American plaice, record their catches on a daily basis according to position, amount, date, type of gear, amount of effort, i.e., number of sets (or hooks) X time gear on the bottom (otter trawl) or fishing (midwater trawl, lines, other gear), discards and disposition of catch.

#### (24) Proposal for International Quota Regulation of the Fishery for Pollock in Divisions 4V, 4W and 4X of Subarea 4 and in Subarea 5 of the Convention Area

Panels 4 and 5, in joint session, recommend that the Commission transmit to the Depositary Government the following proposal for joint action by the Contracting Governments:

That the Pollock Quota Regulation for Division 4X of Subarea 4 and Subarea 5 adopted at the Special Commission Meeting, 26 January 1973 (Special Commission Meeting Proceedings No. 3, Appendix VI) and pending entry into force for the year 1973 be replaced by the following:

"1. That the Contracting Governments take appropriate action to regulate the catch of pollock, *Pollachius virens* (L.), by persons under their jurisdiction fishing in Divisions 4V, 4W and 4X of Subarea 4 and in Subarea 5 so that the aggregate catch of pollock by vessels taking such pollock shall not exceed 55,000 metric tons in 1974.

"2. That Competent Authorities from each Contracting Government listed below shall limit in 1974 the catch of pollock taken by persons under their jurisdiction to the amount listed from the above-mentioned Divisions and Subarea:

Canada	34,000 metric tons
Fed. Rep. Germany	1,600 metric tons
Spain	1,200 metric tons
USSR	2,100 metric tons
USA	12,000 metric tons
Others	4,100 metric tons

"3. That each Contracting Government mentioned by name in paragraph 2 above shall promptly notify the Executive Secretary of the date on which its vessels have ceased a specialized fishery for pollock. Each Contracting Government not mentioned by name in paragraph 2 above shall promptly notify the Executive Secretary if its vessels engage in a specialized fishery for pollock, together if possible with an estimated of the projected catch. Each Contracting Government not mentioned by name in paragraph 2 above shall promptly notify the Executive Secretary if its vessels engage in a specialized fishery for pollock, together if possible with an estimated of the projected catch. Each Contracting Government not mentioned by name in paragraph 2 above shall promptly notify the Executive Secretary shall promptly inform all other Contracting Governments of such notifications. The Executive Secretary shall notify each Contracting Government of the date on which accumulated catch and estimated catch of pollock, the quantity estimated to be taken before closure could be introduced, and the likely incidental catch for the remainder of the year equal 100 percent of the allowable catch designated as for "Others" in paragraph 2 above. Within 10 days of receipt of such notification from the Executive Secretary, each Contracting Government not mentioned by name in paragraph 2 above shall prohibit the catching of pollock in Divisions 4V, 4W and 4X of Subarea 4 and in Subarea 5 by persons under its jurisdiction, except for small incidental catches.

"4. That the Contracting Governments take appropriate action to ensure that all vessels under their jurisdiction which take pollock, record their catches on a daily basis according to position, amount, date, type of gear, amount of effort, i.e., number of sets (or hooks) X time gear on the bottom (otter trawl) or fishing (midwater trawl, lines, other gear), discards and disposition of catch.

#### (25) Proposal for International Quota Regulation of the Fishery for Haddock in Subarea 5 of the Convention Area

Panel 5, in joint session with Panel 4, recommends that the Commission transmit to the Depositary Government the following proposal for joint action by the Contracting Governments:

That the Haddock Quota Regulation for Subarea 5, adopted at the Twenty-First Annual Meeting of the Commission (Annual Proceedings, Vol. 21, pages 32-33) and amended at the Twenty-Second Annual Meeting of the Commission (Annual Proceedings, Vol. 22, page 60), be replaced by the following:

"1. That the Contracting Governments take appropriate action to prohibit the catch of haddock in Subarea 5, except as provided in paragraph 2.

"2. That in order to avoid impairment of fisheries conducted for other species and which take small quantities of haddock incidentally, the Contracting Governments may permit persons under their jurisdiction to have on board a vessel fishing for other species, haddock caught in Subarea 5 in amounts not exceeding 5,000 lb or 2,268 kg, or 10% by weight, of all other fish on board caught in Subarea 5, whichever is greater.

"3. That the Contracting Governments take appropriate action to prohibit persons under their jurisdiction from using fishing gear in a manner capable of catching demersal species during March, April and May 1974 in areas of Subarea 5 bounded by straight lines connecting the following coordinates in the order listed:

(a)	69°55′W, 42°10′N	(b)	67°00′W, 42°20′N
• •	69°10′W, 41°10′N		67°00'W, 41°15'N
	68°30′W, 41°35′N		65°40'W, 41°15'N
	68°45′W, 41°50′N		65°40′W, 42°00′N
	69°00′W, 41°50′N		66°00'W, 42°20'N

The provisions of this paragraph shall not apply to vessels that fish in area (a) with hooks having a gape of not less than 3 cm.

"4. That the application to haddock of the trawl regulations effective in Subarea 5 be suspended during the period these prohibitions on the catching of haddock are in effect."

#### (26) Proposal for International Quota Regulation of the Fishery for Herring from the Georges Bank Stock

Panel 5, in joint session with Panel 4, recommends that the Commission transmit to the Depositary Government the following proposal for joint action by the Contracting Governments:

That the Herring Quota Regulation for the Georges Bank Stock, adopted at the Special Commission Meeting, 26 January 1973 (Special Commission Meeting Proceedings No. 3, Appendix I) and pending entry into force for the year 1973, be replaced by the following:

"1. That the Contracting Governments take appropriate action to regulate the catch of herring, *Clupea harengus* L., by persons under their jurisdiction fishing in Division 5Z of Subarea 5 and in the adjacent waters to the west and south so that the aggregate catch of herring by vessels from this stock shall not exceed in 1974 an amount which is decided at a Special Meeting in January 1974 by unanimous vote of the Contracting Governments present and voting, which amount shall become effect for all Contracting Governments upon receipt of notification from the Depositary Government of the amount decided by the Commission; provided, that the amount to be decided may not exceed the level of catch which will result in the restoration of the adult stock to at least 225,000 metric tons by the end of 1974, and that the Commission may not decide on an amount larger than the 1973 quota for the above-mentioned stock unless the adult stock size at the end of 1973 has reached a level which will provide the maximum sustainable yield by the end of 1974.

"2. That Competent Authorities from each Contracting Government shall limit in 1974 the catch of herring taken by persons under their jurisdiction from the above-mentioned stock to the amount which is decided for each Contracting Government at the above-mentioned Special Meeting by unanimous vote of the Contracting Governments present and voting, which amounts shall become effective for all Contracting Governments upon receipt of notification from the Depositary Government of the amounts decided by the Commission.

"3. That each Contracting Government for which a catch is allocated by the Commission pursuant to paragraph 2 above shall promptly notify the Executive Secretary of the date on which its vessels have ceased a specialized fishery for herring. Each Contracting Government for which a catch is not allocated by the Commission pursuant to paragraph 2 above shall promptly notify the Executive Secretary if its vessels engage in a specialized fishery for herring, together if possible with an estimate of the projected catch. Each Contracting Government for which a catch is not allocated by the Commission pursuant to paragraph 2 above shall promptly notify the Executive Secretary if its vessels engage in a specialized fishery for herring, together if possible with an estimate of the projected catch. Each Contracting Government for which a catch is not allocated by the Commission pursuant to paragraph 2 above shall promptly notify the Executive Secretary of specialized or incidental catches of herring in increments of 100 tons. The Executive Secretary shall promptly inform all other Contracting Governments of such notifications. The Executive Secretary shall notify each Contracting Government of the date on which accumulated eatch and estimated catch of herring, the quantity estimated to be taken before closure could be introduced, and the likely incidental catch for the remainder of the year equal 100 percent of the allowable catch which may be designated for "Others" by the Commission pursuant to paragraph 2 above. Within 10 days of receipt of such notification from the Executive Secretary, each Contracting Government for which a catch is not allocated by the Commission pursuant to paragraph 2 above shall prohibit the catching of herring from Division 5Z of Subarea 5 and in the adjacent waters to the west and south by persons under its jurisdiction, except for small incidental catches.

"4. That the Contracting Governments take appropriate action to ensure that all vessels under their jurisdiction which take herring, record their catches on a daily basis according to position, amount, date, type of gear, amount of effort, i.e., number of sets (or hooks)  $\times$  time gear on the bottom (otter trawl) or fishing (midwater trawl, lines, other gear), discards and disposition of catch.

"5. That the allocations decided by the Commission pursuant to paragraph 2 above are without prejudice to future allocations of catches for this or other stocks. Nothing in this proposal shall prejudice the future possibility of the Contracting Governments entering into mutual arrangements for the management of the allocations of herring catches or re-allocating the allocations of herring catches decided by the Commission pursuant to paragraph 2 above by such agreements as they may enter into, all such arrangements and re-allocations to be reported to all other Contracting Governments through the Executive Secretary.

"6. This proposal shall become effective only at such times as the herring quota proposals adopted 16 June 1973 by Panel 4 for herring in Division 4X and the southern part of Division 4W of Subarea 4 and for herring in Division 5Y of Subarea 5 become effective."

#### (27) Proposal for International Quota Regulation of the Fishery for Herring in Division 5Y of Subarea 5 of the Convention Area

Panel 5, in joint session with Panel 4, recommends that the Commission transmit to the Depositary Government the following proposal for joint action by the Contracting Governments:

That the Herring Quota Regulation for Division 5Y of Subarea 5, adopted at the Special Commission Meeting, 26 January 1973 (Special Commission Meeting Proceedings No. 3, Appendix II) and pending entry into force for the year 1973, be replaced by the following:

"1. That the Contracting Governments take appropriate action to regulate the catch of herring, *Clupea harengus* L., by persons under their jurisdiction fishing in Division 5Y of Subarea 5 so that the aggregate catch of herring by vessels from this stock shall not exceed in 1974 an amount which is decided at a Special Meeting in January 1974 by unanimous vote of the Contracting Governments present and voting, which amount shall become effective for all Contracting Governments upon receipt of notification from the Depositary Government of the amount decided by the Commission; provided, that the amount to be decided may not exceed the level of catch which will result in the restoration of the adult stock to at least 60,000 metric tons by the end of 1974, and that the Commission may not decide on an amount larger than the 1973 quota for the above-menetioned stock unless the adult stock size at the end of 1973 has reached a level which will provide the maximum sustainable yield by the end of 1974.

"2. That Competent Authorities from each Contracting Government shall limit in 1974 the catch of herring taken by persons under their jurisdiction from the above-mentioned stock to the amount which is decided for each Contracting Government at the above-mentioned Special Meeting by unanimous vote of the Contracting Governments present and voting, which amounts shall become effective for all Contracting Governments upon receipt of notification from the Depositary Government of the amounts decided by the Commission.

"3. That each Contracting Government for which a catch is allocated by the Commission pursuant to paragraph 2 above shall promptly notify the Executive Secretary of the date on which its vessels have ceased a specialized fishery for herring. Each Contracting Government for which a catch is not allocated by the Commission pursuant to paragraph 2 above shall promptly notify the Executive Secretary if its vessels engage in a specialized fishery for herring, together if possible with an estimated of the projected catch. Each Contracting Government for which a catch is not allocated by the Commission pursuant to paragraph 2 above shall promptly notify the Executive Secretary if its vessels engage in a specialized fishery for herring, together if possible with an estimated of the projected catch. Each Contracting Government for which a catch is not allocated by the Commission pursuant to paragraph 2 above shall promptly notify the Executive Secretary of specialized or incidental catches of herring in increments of 100 tons. The Executive Secretary shall promptly inform all other Contracting Governments of such notifications. The Executive Secretary shall notify each Contracting Government of the date on which accumulated catch and estimated catch of herring, the quantity estimated to be taken before closure could be introduced, and the likely incidental catch for the remainder of the year equal 100 percent of the allowable catch which may be designated for "Others" by the Commission pursuant to paragraph 2 above. Within 10 days of receipt of such notification from the Executive Secretary, each Contracting Government for which a catch is not allocated by the Commission pursuant to paragraph 2 above shall prohibit the catching of herring in Division 5Y of Subarea 5 by persons under its jurisdiction, except for small incidental catches.

"4. That the Contracting Governments take appropriate action to ensure that all vessels under their jurisdiction which take herring, record their catches on a daily basis according to position, amount, date, type of gear, amount of effort, i.e., number of sets (or hooks)  $\times$  time gear on the bottom (otter trawl) or fishing (midwater trawl, lines, other gear), discards and disposition of catch.

"5. That the allocations decided by the Commission pursuant to paragraph 2 above are without prejudice to future allocations of catches for this or other stocks. Nothing in this proposal shall prejudice the future possibility of the Contracting Governments entering into mutual arrangements for the management of the allocations of her ing catches or re-allocating the allocations of herring catches decided by the Commission pursuant to paragraph 2 above by such agreements as they may enter into, all such arrangements and re-allocations to be reported to all other Contracting Governments through the Executive Secretary.

"6. This proposal shall become effective only at such times as the herring quota proposals adopted 16 June 1973 by Panel 5 for the Georges Bank stock and by Panel 4 for herring in Division 4X and the southern part of Division 4W of Subarea 4 become effective."

#### (28) Proposal for International Quota Regulation of the Fishery for Mackerel from the Southern New England Stock

Panel 5, in joint session with Panel 4, recommends that the Commission transmit to the Depositary Government the following proposal for joint action by the Contracting Governments:

That the Mackerel Quota Regulation for the Southern New England Stock, adopted at the Special Commission Meeting, 26 January 1973 (Special Commission Meeting Proceedings No. 3, Appendix V) and pending entry into force for the year 1973, be replaced by the following:

"1. That the Contracting Governments take appropriate action to regulate the catch of mackerel, Scomber scombrus L., by persons under their jurisdiction fishing on the Southern New England stock found in Subarea 5 and in the adjacent waters to the west and south so that the aggregate catch of mackerel by vessels from this stock shall not exceed in 1974 an amount which is decided at a Special Meeting in January 1974 by unanimous vote of the Contracting Governments present and voting, which amount shall become effective for all Contracting Governments upon receipt of notification from the Depositary Government of the amount decided by the Commission.

"2. That Competent Authorities from each Contracting Government shall limit in 1974 the catch of mackerel taken by persons under their jurisdiction from the above-mentioned stock to the amount which is decided for each Contracting Government at the above-mentioned Special Meeting by unanimous vote of the Contracting Governments present and voting, which amounts shall become effective for all Contracting Governments upon receipt of notification from the Depositary Government of the amounts decided by the Commission.

"3. That each Contracting Government for which a catch is allocated by the Commission pursuant to paragraph 2 above shall promptly notify the Executive Secretary of the date on which its vessels have ceased a specialized fishery for mackerel. Each Contracting Government for which a catch is not allocated by the Commission pursuant to paragraph 2 above shall promptly notify the Executive Secretary if its vessels engage in a specialized fishery for mackerel, together if possible with an estimate of the projected eatch. Each Contracting Government for which a catch is not allocated by the Commission pursuant to paragraph 2 above shall promptly notify the Executive Secretary if its vessels engage in a specialized fishery for mackerel, together if possible with an estimate of the projected eatch. Each Contracting Government for which a catch is not allocated by the Commission pursuant to paragraph 2 above shall promptly notify the Executive Secretary of specialized or incidental catches of mackerel in increments of 100 tons. The Executive Secretary shall promptly inform all other Contracting Governments of such notifications. The Executive Secretary shall notify each Contracting Government of the date on which accumulated catch and estimated catch for the remainder of the year equal 100 percent of the allowable catch which may be designated for "Others" by the Commission pursuant to paragraph 2 above. Within 10 days of receipt of such notification from the Executive Secretary, each Contracting Government for which a catch is not allocated by the Commission pursuant to paragraph 2 above shall prohibit the catching of mackerel from the Southern New England stock by persons under its jurisdiction, except for small incidental catches.

"4. That the Contracting Governments take appropriate action to ensure that all vessels under their jurisdiction which take mackerel, record their catches on a daily basis according to position, amount, date, type of gear, amount of effort, i.e., number of sets (or hooks)  $\times$  time gear on the bottom (otter trawl) or fishing (midwater trawl, lines, other gear), discards and disposition of catch.

"5. That the allocations decided by the Commission pursuant to paragraph 2 above are without prejudice to future allocations of catches for this or other stocks."

#### (29) Proposal for International Regulation of the Fishery for Red Hake and Silver Hake in Subarea 5 of the Convention Area

Panel 5 recommends that the Commission transmit to the Depositary Government the following proposal for joint action by the Contracting Governments:

That the Red Hake and Silver Hake Trawl Regulations for Subarea 5, adopted at the Twenty-Second Annual Meeting (Annual Proceedings, Vol. 22, 1971-72, page 63) and entered into force on 1 January 1973, be replaced by the following:

"That the Contracting Governments take appropriate action to prohibit the taking of red hake, *Urophycis chuss* (Walb.) and silver hake, *Merluccius bilinearis* (Mitch.), during the month of April of 1974 in the area bounded by  $69^{\circ}00'W$ ,  $39^{\circ}50'N$ ;  $71^{\circ}40'W$  and  $40^{\circ}20'N$ , however, provided that during this period, groundfish vessels may be permitted to take on each trip during which they fish in the said area, red and silver hake in amounts not to exceed 10 percent each of the total catch taken in the said area on that trip."

#### (30) Proposal for International Regulation Respecting the Protection of Seals in the "Gulf" and "Front" Areas of the Convention Area

Panel A recommends that the Commission transmit to the Depositary Government the following proposal for joint action by the Contracting Governments:

"1. That the Contracting Governments take appropriate action to ensure that, for the year 1974 only, the total allowable catch in the "Front"<sup>1</sup> area be 120,000 harp seals, *Pagophilus groenlandica*, to be shared equally between Canada and Norway, and additional allowances of 100 harp seals for possible other participants in the seal fishery, and, of 30,000 harp seals for the indigenous non-mobile fisheries of the "Front" and "Gulf"<sup>2</sup> area.

"2. That the Contracting Governments take appropriate action to ensure that, for the year 1974 only, the total allowable catch in the "Front" area, be 15,000 hood seals, *Cystophora cristata*. (The quota does not apply to West Greenland.)

"3. That the Contracting Governments take appropriate action to ensure that the open season in the "Front" area for the taking of harp seals shall commence not earlier than 0900 hours GMT on 12 March 1974 and terminate not later than 24 April 1974, and for the taking of hood seals shall commence not earlier than 0900 hours GMT on 20 March 1974 and terminate not later than 24 April 1974.

"4. That Contracting Governments take appropriate action to prohibit the killing of adult (harp) seals in whelping patches in the "Gulf" and "Front" areas."

<sup>&</sup>lt;sup>1</sup> All the waters of the Strait of Belle Isle and the Atlantic Ocean east of a straight line between the lighthouse at Amour Point on the east coast of Labrador and the lighthouse on Flowers Island in Flowers Cove, Newfoundland.

<sup>&</sup>lt;sup>2</sup>All the waters and territories west of a straight line between the lighthouse at Amour Point on the coast of Labrador and the lighthouse on Flowers Island in Flowers Cove, Newfoundland.

#### (31) Proposal for a Scheme of Joint Enforcement of the Fishery Regulations in the Convention Area and in Statistical Area 6

STACTIC recommends that the Commission transmit to the Depositary Government the following proposal for joint action by the Contracting Governments:

That pursuant to paragraph 5 of Article VIII of the Convention, the following arrangements be established to replace the Scheme of Joint International Enforcement of the Fishery Regulations in the Convention Area adopted at the Twentieth Annual Meeting (Ann. Proc. Vol. 20, 1969-70, p. 21-22, for international control outside national fishing limits for the purpose of ensuring the application of the Convention and the measures in force thereunder:

"1. Control shall be carried out by inspectors of the fishery control services of Contracting Governments. The names of the inspectors appointed for that purpose by their respective governments shall be notified to the Commission.

"2. Ships carrying inspectors shall fly a special flag or pennant approved by the Commission to indicate that the inspector is carrying out international inspection duties. The names of the ships so used for the time being, which may be either special inspection vessels or fishing vessels, shall be notified to the Commission.

"3. Each inspector shall carry a document of identity supplied by the authorities of the flag state in a form approved by the Commission and given him on appointment stating that he has authority to act under the arrangements approved by the Commission.

"4. A vessel employed for the time being in fishing for sea fish or in the treatment of sea fish in the Convention Area or in Statistical Area 6 shall stop when given the appropriate signal in the International Code of Signals by a ship carrying an inspector unless fishing, shooting or hauling, in which case it shall stop immediately it has finished hauling. The master of the vessel shall permit the inspector, who may be accompanied by a witness, to board it. The master shall enable the inspector to make such examination of catch, nets or other gear and any relevant documents as the inspector deems necessary to verify the observance of the Commission's regulations in force in relation to the flag state of the vessel concerned and the inspector may ask for any explanations that he deems necessary.

- "5. (i) On boarding the vessel an inspector shall produce the document described in paragraph 3 above. Inspections shall be made so that the vessel suffers the minimum interference and inconvenience. An inspector shall limit his inquiries to the ascertainment of the facts in relation to the observance of the Commission's regulations in force in relation to the flag state of the vessel concerned. In making his examination an inspector may ask the master for any assistance he may require. He shall draw up a report of his inspection in a form approved by the Commission. He shall sign the report in the presence of the master of the vessel who shall be entitled to add or have added to the report any observations which he may think suitable and must sign such observations. Copies of the report shall be given to the master of the vessel and to the inspector's Government who shall transmit copies to the appropriate authorities of the flag state of the vessel and to the Commission.
  - (ii) Where an infringement of a regulation is discovered, the inspector may look at the pages of a bridge log, fishing log or other pertinent documents which contain information relevant to the infringement. The inspector shall enter a notation in the fishing logbook or other relevant document stating the date, location and type of infringement observed. The inspector may make a true copy of any relevant entry in such a document, and shall require the master of the vessel to certify in writing on each page of the copy that it is a true copy of such entry. The inspector shall have full opportunity to document evidence of the infringement with photographs of the relevant fishing vessel, gear, catch, and logs or other documents. The inspector shall give notice of the infringement to authorities of the vessel's flag state, as notified to the Commission, and to any inspection ship of the flag state known to be in the vicinity. The flag state shall take prompt action through its authorized representatives to receive and consider the evidence of the infringement. The flag state shall cooperate fully with the inspector's state to ensure that the evidence of the infringement is prepared and preserved in a form which will facilitate judicial action on the infringement.

"6. Resistance to an inspector or failure to comply with his directions shall be treated by the flag state of the vessel as if the inspector were an inspector of that state.

"7. Inspectors shall carry out their duties under these arrangements in accordance with the rules set out in this regulation but they shall remain under the operational control of their national authorities and shall be responsible to them.

8. Contracting Governments shall consider and act on reports of foreign inspectors under these arrangements on the same basis as reports of national inspectors. The provisions of this paragraph shall not impose any obligation on a Contracting Government to give the report of a foreign inspector a higher evidential value than it would possess in the inspector's own country. Contracting Governments shall collaborate in order to facilitate judicial or other proceedings arising from a report of an inspector under these arrangements.

- "9. (i) Contracting Governments shall inform the Commission by 1 March each year of their provisional plans for participation in these arrangements in the following year and the Commission may make suggestions to Contracting Governments for the coordination of national operations in this field including the number of inspectors and ships carrying inspectors.
  - (ii) The arrangements set out in this recommendation and the plans for participation shall apply between Contracting Governments unless otherwise agreed between them; and such agreement shall be notified to the Commission:

Provided, however, that implementation of the Scheme shall be suspended between any two Contracting Governments if either of them has notified the Commission to that effect, pending completion of an agreement.

- "10. (i) Fishing gear shall be inspected in accordance with the regulations in force for the subarea in which the inspection takes place. The number of undersized meshes and the width of each mesh in the nets examined shall be entered in the inspector's report, together with the average width of the meshes examined.
  - (ii) Inspectors shall have authority to inspect all fishing gear.

"11. The inspector shall affix an identification mark approved by the Commission, to any part of the fishing gear which appears to have been used in contravention of the Commission's regulations in force in relation to the flag state of the vessel concerned and shall record this fact in his report.

"12. The inspector may photograph the fishing gear in such a way that the identification mark and measurements of the fishing gear are visible, in which case the subjects photographed should be listed in the report and copies of the photographs should be attached to the copy of the report to the flag state.

"13. The inspector shall have authority, subject to any limitations imposed by the Commission, to carry out such examination and measurement of the catch as he deems necessary to establish whether the Commission's regulations are being complied with. He may photograph the catch to document evidence of infringements, in which case copies of the photographs shall be attached to the copy of the report to the flag state. He shall report his findings to the authorities of the flag state of the inspected vessel as soon as possible.

"14. Each Contracting Government, to which an infringement report is sent originating from an inspector of another Contracting Government, shall transmit to the Commission Secretariat and to the reporting inspector's Government a report of the specific judicial or administrative disposition of each infringement, insofar as possible, 30 days prior to the commencement of the first Annual Meeting following the calendar year in which the infringement occurred."

## PART 3 Appendix IV Press Release

1. The Twenty-Third Annual Meeting of the International Commission for the Northwest Atlantic Fisheries was held in the Conference Suite of the World Health Organization European Regional Office in Copenhagen, Denmark from 4 to 16 June 1973. The Chairman, Mr K. Løkkegaard (Denmark) presided. Almost 200 delegates attended from all Member Countries as follows:

Bulgaria, Canada, Denmark, France, the Federal Republic of Germany, Iceland, Italy, Japan, Norway, Poland, Portugal, Romania, Spain, the Union of Soviet Socialist Republics, the United Kingdom of Great Britain and Northern Ireland, and the United States of America.

Bulgaria was warmly welcomed as a new Member of the Commission. Observers represented the Governments of Cuba and the German Democratic Republic, the International Council for the Exploration of the Sea, the Food and Agriculture Organization of the United Nations, the Organization for Economic Cooperation and Development, and the European Economic Community.

#### **Fishery Trends**

2. Catch of fish from the Northwest Atlantic in 1972 was 4,210,000 tons, almost the same as that recorded in 1971. Total catches for the main species, cod, haddock, redfish, silver hake, flounders, herring, mackerel, show a marked reduction in catches of haddock and herring offset by an increase in catches of mackerel and other pelagic species such as menhaden.

#### **Research and Statistics**

3. The Commission's scientists met for 2 weeks before the Commission meetings and prepared total allowable catch estimates for over 40 of the major stocks of commercial species.

4. Contributions from five experts on ice formed the basis for a valuable discussion of its effect on fishing and fisheries. Plans were made to hold a symposium on the Labrador-Newfoundland Current in its relation to fish and fishing in connection with the 1974 Annual Meeting.

5. The Commission established a Special Working Group to refine and improve the catch and effort statistics, to study sampling methods, and to investigate the advantages and costs of an expanded central data processing unit in the Secretariat in order to increase the capability for processing and analysis of data for stock assessments.

#### Conservation

6. The Commission received the reports of a Special Group of Experts set up to study all aspects of the limitation of effort (days on the fishing grounds or days fished) as a conservation measure to control the problems of by-catch and increasing fishing intensity in the mixed fisheries in the southern part of the Convention Area. Further study was recommended.

7. The Commission continued its application of catch limitation measures in an attempt to reduce the increasing fishing w; tivity and to improve the depleted state of the fish stocks in the Northwest Atlantic from West Greenland to Cape Hatteras.

8. Total allowable catches (TAC's) with national allocations for 1974 were agreed for the stocks of the commercial species from West Greenland (ICNAF Subarea 1) to Southwest Nova Scotia (ICNAF Subarea 4) as follows:

a)	Cod. All cod fishing from West Greenland to Southwest Nova Scotia was limited to a total of 1,053,800 tons.		
,	West Greenland (Subarea 1)	107,000 tons	
	Northern Labrador (Div. 2GH)	20,000 tons	
	Southern Labrador and Eastern Newfoundland (Div. 2J, 3KL)	656,700 tons	
	Flemish Cap (Div. 3M)	40,000 tons	
	Southern Grand Banks (Div. 3NO)	100,100 tons	
	Southern Newfoundland (Subdiv. 3Ps)	70,000 tons	
	Southeast Nova Scotia Banks (Subdiv. 4Vs, Div. 4W)	60,000 tons	

b) Haddock. Fishing for haddock on the Nova Scotia Banks was prohibited except for regulated amounts which might be caught incidentally as a by-catch in other directed fisheries.

c)	Redfish. Redfish fishing at Flemish Cap and on Grand Banks and Southern Newfoundland was limited to a total of 109,000 tons.			
	Flemish Cap (Div. 3M)	40,000 tons		
	East Grand Banks (Div. 3LN)	28,000 tons		
	Southwest Grand Banks (Div. 30)	16,000 tons		
	South Newfoundland (Div. 3P)	25,000 tons		
d)	American Plaice.			
	Grand Banks (Div. 3LNO)	60,000 tons		
e)	American Plaice, Witch Flounder and Yellowtail Flounder combined.			
	Nova Scotia Banks (Div. 4VWX)	32,000 tons		
f)	Pollock,			
	Nova Scotia Banks (Div. 4VWX) and Gulf of Maine (Subarea 5)	55,000 tons		
g)	Silver Hake.			
	Nova Scotia Banks (Div. 4VWX)	100,000 tons		
h)	Witch Flounder.			
	Southern Labrador and Newfoundland (Div. 2J, 3KL) Southern Grand Banks (Div. 3NO)	22,000 tons		
	Southern Newfoundland (Subdiv. 3Ps)	10,000 tons 3,000 tons		
i)	Yellowtail Flounder.			
	Grand Banks (Div. 3LNO)	40,000 tons		
j)	Herring.	47.000		
	Eastern Nova Scotia Banks (Div. 4VWa)	45,000 tons		

In addition, the Commission agreed to set TAC's and allocate them for herring in the Southwest Nova Scotia Banks (Div. 4WX) and for capelin off Labrador (Subarea 2) and Newfoundland (Subarea 3) at a mid-term meeting of the Commission.

9. In the southern part of the Convention Area (Subarea 5) and the region to the south and west (Statistical Area 6), delegates from all Member Countries agreed that there was a demonstrable need for drastic action to control the total fishing intensity. Most Member Countries were unable to accept a United States package proposal which included (1) an overall total allowable catch reduction in 1974 of from 40% to 25% from the average catch over the past 3 years, (2) continuing individual species quotas for the major stocks, (3) use of selective fishing gear for certain areas, and (4) an improvement and strengthening of international control.

10. As a consequence, the Commission agreed that Member Countries should be invited to attend a Special Meeting of the Commission to be held in September or October 1973 at a location to be decided as soon as possible. Such a meeting would give further consideration to excess fishing activity in the southern part of the Convention Area (Subarea 5) and in the region to the south and west (Statistical Area 6) and to possible solutions to the problem.

#### **International Enforcement**

11. The Commission noted that most of the Member Countries were now participating in the Scheme to jointly enforce the Commission's conservation measures. Many refinements to the operational aspects of the Scheme were agreed.

12. The Commission agreed to recommend a catch quota for 1974 of 120,000 seals, the same as last year, to be shared equally between Canada and Norway on the "Front" area off Labrador and northeastern Newfoundland. It agreed that a further allowance of 30,000 seals might be taken in the "Gulf" area (Gulf of St. Lawrence) and on the "Front" by small vessels and landsmen, and that a symbolic catch of 100 seals should be set aside for possible new entrants into the sealing fishery. An unallocated catch quota of 15,000 hood seals was set for the first time; the quota not applying to West Greenland. The 1974 sealing season on the "Front" area for harp seals extends from 0900 GMT, 12 March 1974 to 24 April 1974; for hood seals, 0900 GMT, 20 March 1974 to 24 April 1974.

13. The Commission elected Mr M. Fila (Poland) as Chairman for 1973/74 and 1974/75 to replace Mr K. Løkkegaard (Denmark). Mr E. Gillett (UK) was elected Vice-Chairman for a similar period.

14. The next meeting of the Commission will be held in January of 1974 to set quotas on herring, mackerel and capelin. The 24th Annual Meeting of the Commission will be held in Halifax, Nova Scotia, from 4 to 15 June 1974.

Office of the Commission, Dartmouth, Nova Scotia, Canada, 27 June 1973.

### PART 4

### Summaries of Research and Status of Fisheries for Subareas and Seals

The following summaries are based on reports prepared by the Chairmen of the Groups of Scientific Advisers to the Panels from research reports and other pertinent documents submitted to the 1973 Annual Meeting of the Commission from Member Countries. The Chairmen were: for Subarea 1 – Sv. Aa. Horsted (Denmark); for Subarea 2 – A. W. May. (Canada); for Subarea 3 – H. A. Cole (UK); for Subarea 4 – F. D. McCracken (Canada); for Subarea 5 – M. D. Grosslein (USA); for Seals – A. W. Mansfield (Canada).

#### Subarea 1 and East Greenland

Reports on research in 1972 were submitted by Canada, Denmark, France, Federal Republic of Germany (FRG), Norway, Poland, Portugal, Spain, USSR, UK, and USA.

#### **1.** Status of Fisheries

In Subarea 1 the total catch of all species, including that by non-member countries, decreased from 150,000 metric tons in 1971 to 139,000 tons in 1972, the lowest recorded in ICNAF statistics.

Catches by countries in 1972, in metric tons (1971 in parentheses), were: Denmark (Faroes) 11,000 (17,000); Denmark (Greenland) 41,000 (37,000); France 6,000 (4,000); FRG 20,000 (43,000); Norway 33,000 (8,000); Portugal 8,000 (6,000); Spain 13,000 (23,000); USSR 4,000 (5,000); UK 1,000 (3,000); and others 1,000 (4,000).

Cod catches decreased from 121,000 tons in 1971 to 111,000 tons in 1972, continuing a decline since 1967 when the catch was 430,000 tons.

Redfish catches were at the same low level (3,000 tons) as since 1969, compared to a high of 61,000 tons in 1962.

Salmon catches by Denmark, Faroes, Greenland, and Norway decreased from 2,654 tons in 1971 to 2,113 tons in 1972 due partly to the influence of a catch quota of 2,210 tons.

Deep-sea prawn catches remained steady at 9,221 tons in 1972 (9,437 tons in 1971).

The East Greenland cod and redfish fisheries were

carried out by FRG trawlers which took almost 22,000 tons of cod in 1972 (29,000 tons by FRG in 1971) and 7,000 tons of redfish (14,000 tons by FRG in 1971). In 1971 and 1972 cod has replaced redfish as the most important species in the fisheries off East Greenland.

#### 2. Work Carried Out

a) Canada: Participation with R/V A. T. Cameron in International Salmon Tagging Experiment off West Greenland.

b) Denmark: Hydrographic sections worked by R/V Adolf Jensen, January-July. Plankton sampling Davis Strait, April-July. Cod egg and larvae sampling off West Greenland, April-July. Tagged 930 cod in Div. ID. Cod sampling for age and size. Biological data on Greenland halibut and American plaice (261 tagged). Major participation in International Salmon Tagging Experiment with R/V Adolf Jensen and observers on 6 commercial salmon vessels.

c) France: Participation in International Salmon Tagging Experiment with R/V *Cryos*. Hydrographic and plankton studies.

d) FRG: Hydrographic studies by R/V Anton Dohrn off West Greenland in December with R/V Adolf Jensen (Denmark) and R/V Cirolana (UK). Cod lengths (26,449) and age (8,497) sampling.

e) Norway: Personnel participated in International Salmon Tagging Experiment at West Greenland as observers on commercial vessels.

f) Portugal: Sampling the cod fishery (15,570 lengths) (725 otoliths).

g) UK: Five hydrographic sections off West Greenland, R/V Cirolana with R/V Anton Dohrn (FRG). Participation with R/V Scotia in International Salmon Tagging Experiment at West Greenland. Cod and salmon serological studies. Groundfish survey, November-December, with R/V Cirolana. Plankton recorder sampling, 2,500 miles.

h) USSR: Hydrography, R/V Perseus III. Biological studies of cod, roundnose grenadier. Tagged 400 cod in Div. 1D and 344 Greenland halibut in Div. 1C.

i) USA: Personnel participated in International Salmon Tagging Experiment at West Greenland.

#### 3. Hydrography

The occurrence of polar ice (storis) was much more sparse than during the preceding three severe ice seasons. However, local formation of coastal ice was favoured by cold, calm weather, especially in southernmost Greenland and in Disko Bay.

Surface temperatures in the West and South Greenland area are now back at the level of the mean value for the years 1876-1915, and the climatic jump back to cold conditions has been just as sudden as the rise in temperatures in the twenties.

Research vessels participating in the International Salmon Tagging Experiment off West Greenland and in the Labrador Sea carried out hydrographic work on most fishing stations. The material will be worked up by the ICES hydrographer. France reports that as well as temperature readings and collection of water samples, clarity measurements were also made on some stations.

In April, June, and July, very cold conditions were found in Div. 1D in the Fyllas Bank section in the upper 100 m as a result of a strong winter cooling and inflow of cold polar water from the East Greenland polar current. This indicates that the 1972 cod year-class will probably be poor. In July over the banks in Div. 1C and 1B, the temperatures were very low in the upper 100 m. In December the winter cooling has caused negative temperatures in the upper layers on all hydrographic sections off West Greenland deepest in the northern part of the Subarea, whereas in the deeper layers relatively high temperatures were found. In the core of the Irminger component of the current, temperatures exceeding 5°C were found as far north as Store Hellefiske Bank (67°N latitude). a) Eggs and larvae: Observations in the spawning period were limited. Very few eggs were found, but the material does not permit any judgement of the magnitude of the spawning. Cod larvae were very scarce in June and July. None were observed on the Fyllas Bank section; a very limited number were found in Div. 1C and 1B. This suggests that the 1972 cod year-class at West Greenland is poor.

b) Young fish: Danish samples from inshore pound net catches gave limited information. Groundfish surveys conducted by FRG and the UK revealed only small quantities of prerecruit cod. Due to lack of any time series, the results do not give much information on the strength of the 1969-71 year-classes.

c) Commercial stock: Commercial otter trawl catches in the northern divisions (Div. 1B-1D) have the 1965-68 year-classes dominant. There is nearly a complete lack of the 1963 and 1964 year-classes. In the southern divisions (Div. 1E-1F) the 1961-64 year-classes dominate with the 1963 year-class as the most important one. The 1965-68 year-classes also occur in these divisions. The 1965 and 1966 year-classes which were the basis of the fishery in the northern divisions in 1971 are more widely distributed over the Subarea in 1972. The 1968 year-class which recruited gradually to the fishery in 1972 is the most important of the younger year-classes to provide catches in the mid 1970's and is rather evenly distributed throughout the Subarea. Off East Greenland the 1963 year-class is most important; the former important 1961 year-class has nearly disappeared.

d) Tagging: Denmark tagged 930 cod in Div. 1D, of which 605 were small cod taken mainly inshore. USSR tagged 400 cod in Div. 1D.

#### 5. Atlantic Salmon

The 1972 salmon catch totalled 2,113 tons, well within the catch quota of 2,210 tons set by the Commission for 1972 in phasing out the high seas fishery for salmon by 1 January 1976. Of major importance was the International Salmon Tagging Experiment carried out at West Greenland between 2 August and 16 October 1972. A total of 2,364 tagged salmon were liberated, 811 from research vessels from Canada, Denmark, France and UK and 1,553 from commercial drift-net vessels.

#### 6. Other Species

USSR continued studies of roundnose grenadier which showed that males were more abundant and smaller than females on the southern slope of the

### Subarea 2

Reports on research in 1972 were submitted by the following countries: Canada, FRG, Norway, Poland, USSR, and UK.

#### 1. Status of Fisheries

Total catch of all species continued to decline to 219,000 metric tons in 1972 from the peak catch of 1969 (490,000 tons). Catches by countries in 1972 in metric tons (1971 in parentheses) were: Canada 4,000 (5,000); France 5,000 (6,000); FRG 11,000 (20,000); Norway 3,000 (6,000); Poland 24,000 (21,000); Portugal 19,000 (34,000); Romania 1,000 (1,000); Spain 2,000 (6,000); USSR 133,000 (136,000); UK 4,000 (-); and non-member German Democratic Republic 12,000 (11,000).

Cod catches remained steady at 163,000 tons in 1971 and 1972, after a dramatic decline from the record high of 455,000 tons in 1969. The inshore catch remained at the abnormally low level (less than 5,000 tons) which has persisted since 1969. Offshore catches decreased for all countries except USSR, Poland, UK, and the German Democratic Republic.

Catches of roundnose grenadier mostly by the USSR declined dramatically from 57,000 tons in 1971 to 3,000 tons in 1972.

Catches of flounders increased from 8,000 tons in 1967 to 20,000 tons in 1969, decreased to 14,000 tons in 1971 and increased to 19,000 tons in 1972.

Catches of 18,000 tons of capelin in Div. 2J in 1972 were the first significant catches reported from the Subarea.

#### 2. Work Carried Out

a) Canada: Biological studies were carried out on inshore cod (mainly length and age observations), and Atlantic salmon (tagging and stock identification Hydrographic observations were made in studies). August.

Greenland-Canada Ridge in depths of 600-800 m.

USSR tagged 344 Greenland halibut in Div. 1C. Denmark tagged 261 American plaice in Div. 1C and 1D.

b) Fed. Rep. Cermany: A groundfish survey and hydrographic observations were carried out in November.

c) Norway: Research on seal stocks included studies of distribution, tagging, and size, age and reproductive data.

d) Poland: Commercial catches of cod and redfish were sampled for size and age data.

e) USSR: Hydrographic observations were made in most months from January to October. Size and age data were collected from cod. Tagging experiments were conducted on cod and Greenland halibut.

f) UK: The continuous plankton recorder survey was continued, with 4,500 miles sampled in the Subarea in 1972.

#### 3. Hydrography

Water temperatures in Subarea 2 in 1972 were generally colder than in any previous year for which comparable observations are available. The intensity of the Labrador Current was also greater than in previous years. Highest negative anomalies were observed in the surface layers and near bottom. In southern Labrador in July, the volume of water less than -1.5°C was seven times as great as in the previous coldest year, and cold water extended deeper and farther seaward than previously. In November the whole shelf area in mid-Labrador was covered by water colder than 0°C. From 1970 to 1973 drift ice has appeared in the area about 10 days earlier each year.

#### 4. Plankton

The spring outbreak of phytoplankton was later than normal. Numbers of adult copepods (Calanus) were above average in the oceanic part of the Subarea in spring and summer, but lower than usual in coastal areas. Euphausiids were less abundant than normal. As in 1971, larval redfish abundance was low.

#### 5. Cod

The combination of low stock abundance inshore, and unfavourable temperature conditions, resulted in the absence of a cod fishery in much of the Labrador coastal area. The catch of 1,728 tons was the lowest ever recorded, and was only 6% of the catch taken five years before (in 1967).

Cod of 40-60 cm and ages 5-8 prevailed in USSR trawl catches. The 1967 and 1968 year-classes (ages 4 and 5 in 1972) appeared to be relatively abundant, and the 1969 year-class not very abundant. Preliminary results of USSR tagging experiments indicated an early and rapid southward movement of cod from Div. 2J to Div. 3K, apparently as a result of cooling in the Labrador area. The USSR fishery was greatly hampered by ice conditions in the February-April period. It is expected that these conditions will improve in 1974.

Polish vessels fished the area in January, withdrew in February because of ice, and returned in April and August. Best cod catches per day fished were obtained in January, February and April. Fish of lengths 36-56 cm and ages 5 to 7 predominated. The 1968 year-class was found to be relatively abundant.

Fishing effort and catches by FRG were much reduced in 1972 because of ice conditions. Of the cod catch, 70% was taken in January. A groundfish survey in November revealed that cod older than 8 years were scarce. Seventy-two percent of the catch consisted of fish of the 1966, 1967, and 1968 year-classes. USSR research on cod abundance and recruitment indicates that spawning takes place mainly on the northern parts of the Labrador Shelf, and that the eggs and larvae are carried southward to Div. 3K, from which there is a northward movement of young cod at age 4. The cod in Labrador are characterized by relatively small year-class fluctuations. Good survival of new year-classes in Div. 2J occurred in 1966 to 1968.

Canadian scientists reported on an evaluation of research survey indices of abundance in relation to stock sizes at first entry to the fishery.

An assessment of cod in Div. 2G and 2H indicated a succession of three relatively poor year-classes (1964 to 1966), and maximum sustainable yield for the early 1970's of about 20,000 tons annually.

#### 6. Redfish

Polish sampling in March revealed that redfish of 35-48 cm and 15 to 28 years in age were most numerous in the catches. Soviet investigations on redfish distribution were directed toward analysis of differences in size and age composition relative to depth.

#### 7. Capelin

Capelin were recorded in offshore commercial catches for the first time in 1972. USSR research and scouting vessels found dense concentrations of capelin in Div. 2J in September. Canadian scientists reported on preliminary research on stock identification and stock sizes.

#### Subarea 3

Reports on research in 1972 were submitted by Canada, France, FRG, Japan, Norway, Poland, Portugal, Spain, USSR, UK, and USA.

#### 1. Status of Fisheries

Total catch of all species was 952,000 metric tons, a decrease of 2,000 tons from 1971 and 194,000 tons from the highest recorded catch of 1,146,000 tons in 1968. Decreased catches were recorded by Canada 361,000 to 268,000 tons; Denmark 14,000 to 8,000 tons; France 20,000 to 19,000 tons; Japan 8,000 to 2,000 tons; Norway 21,000 to 6,000 tons; Portugal 95,000 to 89,000 tons; and Spain 174,000 to 161,000 tons. Increased catches were reported by FRG 12,000 to 21,000 tons; Poland 27,000 to 36,000 tons; Romania 2,000 to 3,000 tons; USSR 198,000 to  $31^{\circ}$ ,000 tons; UK 5,000 to 10,000 tons; and German Democratic Republic, 16,000 to 19,000 tons.

Cod catches which made up over 55% of the total catch of all species increased from 514,000 tons in 1971 to 522,000 tons in 1972. Substantial decreases in catch were reported by Canada, Denmark, Norway and Spain. Catches by FRG, Poland, USSR, UK, and German Democratic Republic increased, while catches by France, Portugal, and Romania remained about the same. Haddock catches decreased further from 5,000 tons in 1971 to 4,000 tons in 1972, in contrast to catches of 35,000 to 104,000 tons annually during 1954-62.

Redfish catches again increased considerably from 102,000 tons in 1971 to 120,000 tons in 1972, giving the highest total since 1959 when the catch peaked at 246,000 tons.

American plaice catches decreased a further 9,000 tons to 71,000 tons in 1972. Catches of witch decreased from 31,000 to 28,000 tons, while yellowtail flounder increased from 38,000 to 40,000 tons.

Herring catches declined drastically from 118,000 to 52,000 tons.

Capelin catches increased dramatically from 3,000 to 53,000 tons.

Roundnose grenadier catches increased slightly from 18,000 to 21,000 tons, taken in Div. 3K.

#### 2. Work Carried Out

a) Canada: Five standard hydrographic sections across the Labrador Current, from southern Labrador to the Grand Bank, July-August. Station 27 off Cape Spear occupied monthly. Joint Canada, UK, and US oceanographic survey, Gulf Stream system south of Grand Bank, April-June. Sampling for stock intensity and assessment purposes for cod, yellowtail flounder, herring, mackerel and Atlantic and pink salmon. Tagging of yellowtail (1,000) on southeast part of Grand Bank, herring (27,500) and mackerel (1,450) in northern and eastern Newfoundland.

b) France: R/V Cryos hydrographic and biological studies northern Gulf of St. Lawrence, 17-20 June. Studies on bottom fish, St. Pierre and Burgeo Banks, February and May. Pelagic fish studies in Laurentian Channel area, March, April, and November-December.

c) FRG: R/V Anton Dohrn, three hydrographic sections off Labrador, 18-29 November. Hydrographic sections across the eastern end of the Laurentian Channel, March and November. Groundfish survey off southern Labrador and northern Newfoundland, second half of November.

d) Japan: Length measurements of redfish off southern Newfoundland.

e) Norway: R/V Johan Hjort, capelin investigations on Grand Bank, 17 May-19 June.

f) Poland: Sampling cod, redfish, Greenland halibut, witch, American plaice for length and age. Hydrography off eastern Newfoundland, 2-12 September.

g) Portugal: Sampling commercial cod fishery for lengths.

h) Spain: Sampling for length and age of cod in commercial fishery off eastern and southern Newfound-land.

i) USSR: R/V Procion and Perseus III hydrographic surveys off eastern Newfoundland (January-June). Plankton and young fish (cod and haddock) collections, April-July. Biomass studies. Tagging cod (1,510) and Greenland halibut (513) off eastern Newfoundland. Studies on Sebastes spp.

j) UK: Continuous plankton recorder survey (12,400 miles). Joint Canada, UK and US oceanographic survey, R/V *Cirolana*, Gulf of Stream system south of Flemish Cap and east of Grand Bank, 17 April-1 May.

**k)** USA: Oceanographic surveys off eastern Newfoundland. Joint Canada, UK, and US oceanographic survey of Gulf Stream system.

#### 3. Hydrography

The surface water layers on the Grand Bank and within the area of influence of the Labrador Current were particularly cold in 1972, the coldest since 1936. The low temperatures and correspondingly low salinities were associated with a higher-than-normal transport of the Labrador Current in April and May causing particularly severe ice conditions. However, above average temperatures were recorded on the southern and southwestern slopes of the Grand Bank, particularly in the 200-500 m layer, suggesting some increase in heat transport within the Gulf Stream.

#### 4. Plankton

In 1972 the spring outburst of phytoplankton was rather late; abundance of *Calanus* was above average during the late spring and summer. As in 1971 numbers of redfish larvae were low in Subarea 3.

#### 5. Cod

Low catches continued in the Canadian coastal fisheries during the peak summer season, particularly in the trap fishery. The 1964 year-class made a strong contribution to the deep gillnet catch but trapnet catches were dominated by the 1968 year-class. Canadian investigations show a distinct shift in fishing pattern toward the younger ages in the southern Grand Bank stock. The Portuguese fleet continued its changeover from dory vessels to gill netting. Polish trawl fishing in Div. 3K gave better catch-per-day than in 1971. Spanish catches on the Grand Bank and off southern Newfoundland were predominated by the 1966 and 1968 year-classes. USSR surveys forecast better cod catches from the Grand Bank and southern Newfoundland fisheries due to the strong incoming 1968 year-class.

#### 6. Haddock

There has been no sign of recovery of the haddock stock. Recent year-classes are poorer than the relatively abundant 1966 year-class which did not support a large fishery on St. Pierre Bank.

#### 7. Herring

Herring were fished mainly by Canada. Drastic declines in catch were said to be due to poor weather and low recruitment. Canadian studies show that Fortune Bay herring are a relatively discrete spring spawning stock.

#### 8. Mackerel

Recent large increases in mackerel abundance in Newfoundland and southern Labrador coastal areas is the result of a strong 1967 year-class.

#### 9. Redfish

USSR studies show that faster growing and maturing Sebastes mentella and fasciatus make up the fishery in the southern slopes of the Grand Bank. Despite the continued increase in catches in this area from year to year, these species seem to have been able to maintain the stock to date.

#### 10. Yellowtail Flounder

Canadian investigations showed strong recruitment to the exploited stock which continues to expand in abundance geographically, despite an increased rate of fishing and continued high catches.

#### **11.** American Plaice

USSR investigations show that plaice eggs were found in twice the number found in 1970 and 1971.

#### 12. Capelin

Substantial development of the capelin fishery took place in 1972 due to increased USSR effort. Heaviest catches were made in Div. 3K and 3N. Norwegian studies reported offshore spawning in June on the southeastern shoal of the Grand Bank and an estimated abundance of 800,000 tons of capelin in the area. With the rapid development of a directed fishery for capelin and the importance of the species as a major food for cod, further and detailed stock assessments are planned.

#### Subarea 4

Reports on research have been received from Canada, France (SP), Japan, FRG, Poland, Spain, USSR, UK, and USA.

#### 1. Status of Fisheries

Total nominal catches of all species including non-member countries declined about 15% from 1,064,000 tons in 1971 to 911,000 tons in 1972. Decreased catches were reported by Canada (669,000 to 600,000 tons), France 26,000 to 21,000 tons), Japan (5,500 to 4,500 tons), Poland 1,300 to 400 tons), Portugal (17,000 to 13,000 tons), Spain (53,000 to 42,000 tons), USSR (270,000 to 200,000 tons), and GDR (5,000 to 2,000 tons). Increased catches were reported by Denmark (Faroes) (3,000 to 11,500 tons), FRG (100 to 600 tons), UK (0 to 1,300 tons) and USA (13,000 to 15,500 tons).

Nominal catches of almost all major species declined in 1972, cod from 222,000 to 209,000 tons, redfish from 142,000 to 130,000 tons, haddock from 31,000 to 18,000 tons, American plaice from 23,000 to 20,000 tons, witch from 21,000 to 13,000 tons, silver hake from 129,000 to 114,000 tons, herring from 311,000 to 259,000 tons, and mackerel from 23,000 to 21,000 tons. Declines in catches also occurred for yellowtail flounder, winter flounder, angler, red hake, wolffish, skates, alewife, argentines and squids. Nominal catches of pollock increased from 12,000 to 20,000 tons, white hake from 11,000 to 12,000 tons, and cusk from 4,600 to 5,300 tons. A small fishery for dogfish (2,500 tons) in 1972 was reported by the USSR.

#### 2. Work Carried Out

a) Canada: Assessment and inventory studies of groundfish population from research vessel cruises and samples and statistics of commercial fisheries. Sand launce biology study. Herring and groundfish larvae survey. Large samples of herring from commercial landings taken for assessment purposes. Salmon smolts and adults tagged and liberated. Hydrographic, plankton and oceanic pollutant studies continued.

b) France (SP): Observations made on hydrographic conditions and various fish species and prawns studied from the eastern Scotian Shelf and the southern Gulf of St. Lawrence. Hydrographic and searching study in Div. 4S by R/V Cryos, France-Quebec cooperation.

c) FRG: Little fishery carried out and only small samples of herring taken from Div. 4X. Hydrographic sections made across the Laurentian Channel.

d) Poland: Plankton and oceanographic studies.

e) Spain: Three cod age-length samples taken from a commercial side trawler.

f) USSR: Length and age composition studies of silver hake, argentine and herring. Extensive groundfish trawl surveys and abundance estimates for main species on the Scotian Shelf. Population studies for argentines. Extensive oceanographic surveys carried out on the Scotian Shelf.

g) UK: Continuous Plankton Recorder sampling for 2,800 miles.

h) USA: Trawl survey on the Scotian Shelf. Estimates of abundance of haddock, cod and redfish. Cooperative studies with Canada on sexual maturity of haddock from Div. 4X.

i) Special Studies: Cooperative and coordinated groundfish surveys by Canada, USSR, and USA. ICNAF joint larval herring survey participated in by Canada (inshore), FRG, Poland, USSR, and USA.

#### 3. Hydrography and Plankton

Surface temperatures in the southern Gulf of St. Lawrence at the end of the heating season were about 8°C cooler than in 1970. The presence of much lower temperatures prompted a prediction of an early freeze-up in the Gulf of St. Lawrence and higher ice concentrations in that region.

The anomalous conditions which set in during the winter of 1972 on the Nova Scotian Shelf were caused by an enormous outflow of cold water from Cabot Strait and its subsequent expansion over the entire eastern portion of the Shelf. In January the water temperature in the 0-100 m layer never exceeded  $0.5^{\circ}$  to  $2.5^{\circ}$ C and, in March, it was plainly negative in the same layer in the area of Canso, Misaine, and Banquereau Banks. At the same time, floating ice was observed in great quantities on the northern slopes of Canso, Misaine and Artimon Banks. In the winter of 1972, in Cabot Strait, the water temperature in the 0-100 m layer was the lowest since 1967.

Much hydrographic data have been collected during the course of the ICNAF herring larval survey program and analysis of these data would be useful.

During a Polish research vessel cruise in September in Div. 4X, the biomass of plankton amounted to 107  $cm^3/m^3$ . The main components of zooplankton were Copepoda, Euphausidacea, Amphipoda and Chaetognatha.

Continuous Plankton Recorder surveys showed the spring outburst of plankton to be slightly earlier than usual in Subarea 4 during 1971 and unusually abundant in October of 1971. Various examples of results obtained from the long-term series of continuous plankton records are given in ICNAF Res. Doc. 73/78.

#### 4. Cod

Abundance of the Div. 4T and Subdiv. 4Vn migratory cod stock appears about average, with abundance of year-classes expected to enter the fishery in 1974 also about average. Current stock appears capable of supporting a production of about 60,000 tons.

Estimates of year-class strength from research vessel surveys for Div. 4W and Subdiv. 4Vs cod stocks show that recent year-classes except 1968 are poor. Previous estimates of yield-per-recruit based on Canadian sampling are probably too high (since length frequency data for some Spanish catches in 1971 show significantly smaller cod being taken than in the Canadian fishery). It seems prudent not to let catches increase above the present level.

Preliminary results of cod tagging in Div. 4X continue to confirm a separation of inshore and offshore stocks. For the offshore stock adult abundance is low,

expected recruitment is poor, and mortality rates are excessively high.

Current analyses of this fishery indicate that at present stock levels, a reduction in removals to about 3,500 tons is required to achieve maximum yield per recruit (ICNAF Res. Doc. 73/7). However, it is noted that the practicality of separating the inshore and offshore fisheries would make management difficult.

#### 5. Haddock

Abundance of age groups on which the Div. 4VW haddock fishery is based continued to decline to a new low level. Abundance of pre-recruit year-classes (1968-71) is predicted to be poor. This stock, which has sustained annual catches of 25,000 tons in the past with normal recruitment, is severely depleted and exploitation rate continues very high.

Landings of Div. 4X haddock exceeded the 9,000-ton quota for 1972 by about 4,500 tons even though the directed fishery was closed in October of 1972. In 1973 the directed fishery was closed at the end of April. Research vessel surveys show that 1969 and 1971 year-classes are the strongest since 1963, but are poor by pre-1963 standards. Young of the year estimates for the 1972 year-class indicate that it is weak.

#### 6. Silver Hake

Silver hake landings have fluctuated widely over the history of the fishery (from 1961) apparently due to differences in recruitment. The USSR has conducted the only major fishery mainly in Div. 4W and in 1971 introduced mid-water trawls. Current catches are based on comparatively abundant 1968, 1969, and 1970 year-classes. USSR surveys in 1972 showed an increased stock over 1971 with 1970 and 1971 year-classes being caught in great quantities. Silver hake mature at an early age (age 3). The fishery is currently dependent on fish of age 2, 3, and 4.

#### 7. Redfish

Trawling with bottom and semi-pelagic trawls in Div. 4R and 4S by the French R/V Cryos produced good catches of redfish.

Landings of redfish from Div. 4VWX have fluctuated from 9,700 tons in 1955 to 62,000 tons in 1971, but have averaged about 30,000 tons between 1969 and 1971. Fluctuations have been without apparent trend. The substantial increase in landings in 1971 was not accompanied by a comparable increase in catch per effort. Redfish in commercial landings were 20-40 cm in length, in research vessel surveys about 10-40 cm, and biomass estimates uncorrected for catchability, from Canadian research vessel surveys, increased from 170,000 to 230,000 tons between 1970 and 1972.

#### 8. Pollock

Pollock stock differentiation in the Northwest Atlantic is not well known, but only one major spawning centre has been found in the vicinity of Jeffreys Ledge, Div. 5Y. It is not unlikely that pollock caught in Div. 4V and 4W are part of the stock found in Div. 4X and Subarea 5 which is currently under quota regulation. Catch rates for Canadian trawlers (151-500 gross ton class) declined from 153 Kg/hr in 1965 to 45 Kg/hr in 1971, then increased to 145 Kg/hr in 1972. The higher catch rate in 1972 may imply improved recruitment, but the data must be interpreted with caution.

#### 9. Flatfish

Total landings of flatfish increased from 10,000 tons in 1960 to 55,000 tons in 1968 and ranged from 29,000 to 37,000 tons between 1969 and 1971. Canada has taken most of these fish although USSR has made sporadic large landings since 1965.

Winter flounder is a coastal species although there is a stock in the shallows of Sable Island Bank (Div. 4W). Witch show localized areas of high abundance in deep water (usually greater than 100 fathoms) in Div. 4V, 4W, and 4X. According to USSR research spawning is protracted; eggs were found in May in Div. 4V and larvae in the same region during August. American plaice is widely distributed on the Scotian Shelf but major concentrations occur only in Div. 4V at depths less than 100 fathoms, particularly in the cold water area north of Banquereau. Yellowtail flounder have a localized distribution on the tops of offshore banks in depths less than 50 fathoms. Densest concentrations are located on Banquereau, Sable Island, and Middle Banks.

Details of size, age composition, mortality rates, etc., are given in the Canadian research paper (ICNAF Res. Doc. 73/102) and are too extensive to summarize here. Separation by species in landings prior to 1970 are speculative and information on discards and incidental catches are lacking, so individual species assessments are only approximate. However, errors in estimated yield levels will largely balance out when assessments are combined, suggesting a maximum sustainable yield level of 32,000 tons. Studies on feeding of American plaice by France (SP) indicate the diet, mainly of crustaceans, varies according to size of fish, season, and temperature.

#### 10. Herring

During 1972 and early 1973 herring stocks and fisheries have been studied intensively and discussed at length during two mid-term and two annual meetings of the Commission and by a special herring work group. It seems inappropriate to attempt to summarize this voluminous material here but rather to refer to ICNAF Summ. Doc. 73/1 and to ICNAF Res. Doc. 73/115. The latter gives a preliminary summary of results of the ICNAF Joint Larvel Herring Survey carried out in the autumn of 1972.

Distribution of herring landings from Subarea 4 changed markedly in 1972 with declines in Div. 4T, 4R, and 4W and increased from Div. 4X. Larval surveys continue to indicate that there is a discrete herring spawning stock off Southwest Nova Scotia (Div. 4X) with minimal drift of larvae outside Div. 4X. However, extensive larval drift from Southwest Nova Scotia into the Bay of Fundy was observed. Pre-recruit estimates to provide advice about stocks has become of prime importance. Preliminary juvenile surveys were made during February and March 1973. It appears that the 1970 year-class in Div. 4X is large but that the 1971 year-class may be relatively small.

Studies on the larval nematode Anisakis in herring have revealed substantial differences between infestation levels in herring of the eastern Scotian Shelf (Subdiv. 4Vs and Div. 4W) and those of the stock complex in Div. 3P and 4T.

A report on the herring fishery in Div. 4V and 4Wa revealed that the fishery exploits mainly young herring (2-4 years old) in Chedabucto Bay (Div. 4Wa), adult herring of intermediate age in Subdiv. 4Vn and mainly very old herring on Banquereau. In the absence of a satisfactory biological basis for recommendation of a total allowable catch (TAC), the Assessments Subcommittee recommends a pre-emptive level of TAC of 45,000 tons for 1974 to prevent diversion of effort to this stock.

#### 11. Mackerel

The greatly increased mackerel fishery in Subarea 5 and Statistical Area 6 has important implications for stocks in Subarea 4. Canadian researches using indirect methods of estimation (calculation of number of eggs in Div. 4T) suggest a large spawning stock in the Gulf of St. Lawrence. Canadian data provided evidence of the migratory nature of mackerel but the interrelationships of stocks and fisheries is still left in doubt. It is possible that the fishery in Subarea 5 and Statistical Area 6 exploits mackerel which migrate into Subareas 3 and 4. Between 1965 and 1972 there have been two outstanding year-classes, 1959 and 1967, in the spawning stock. These dominant year-classes grew more slowly and probably matured at an older age than nondominant year-classes.

#### 12. Capelin

French (SP) research cruises in Div. 4S indicated large numbers of larval capelin in depths of 100-175 m and in cold water from  $-1.5^{\circ}$ C to  $-1.7^{\circ}$ C.

#### 13. Atlantic Salmon

Tag returns from wild smolts of one river, liberated in 1970, continue to show high exploitation in distant fisheries off Greenland and Newfoundland. With banning of commercial fisheries in the Miramichi area, Div. 4T, escapement of 2-seawinter fish to the river spawning regions increased substantially. In this stream the improvement resulted in an increased escapement to about two-thirds of the normal requirement for optimum output of smolts.

#### Subarea 5 and Statistical Area 6

Reports on research in 1972 were submitted by Bulgaria, Canada, FRG, Japan, Poland, USSR, UK, and USA.

#### 1. Status of Fisheries

Total catch of all species taken from Subarea 5

and Statistical Area 6 increased from about 1,926,000 tons in 1971 to 1,992,000 tons in 1972. Increased catches were recorded for Japan (28,000 to 29,000 tons), Spain (13,000 to 16,000 tons), USSR (407,000 to 489,000 tons), USA (966,000 to 980,000 tons), GDR (107,000 to 139,000 tons), and Cuba (1,150 to 1,600 tons). Decreased catches were reported by Bulgaria (45,000 to 40,000 tons), Canada (70,000 to 52,000

tons), FRG (60,000 to 33,000 tons), Poland (220,000 to 207,000 tons), and Romania (9,000 to 5,000 tons).

Cod catches decreased from 36,000 to 32,000 tons due to decreases by Canada, Spain, and USA. USSR recorded a slight increase.

Haddock catches exceeded the Commission's catch limit level of 6,000 tons by 647 tons. About two-thirds of the total catch was taken by USA.

Redfish catches decreased from 20,000 to 19,000 tons. Substantial increase was recorded by USSR (3,000 to 6,000 tons) and decrease by USA (16,000 to 13,000 tons).

Silver hake catches increased considerably from 108,000 to 115,000 tons with major increase by USSR from 89,000 to 102,000 tons. Catches by USA decreased one-half from 16,000 to 8,000 tons.

Red hake catches increased dramatically from 40,000 to 76,000 tons due mainly to an increase of 37,000 tons by the USSR.

Pollock catches declined from 15,000 to 13,000 tons due to small decreases in catch by Canada, FRG, Spain, and GDR. US catch increased slightly.

Yellowtail flounder catches increased from 31,000 to 39,000 tons due mainly to USSR (2,000 to 5,000 tons) and USA (29,000 to 33,000 tons). The catch limit of 26,000 tons set in Subarea 5 for 1972 was exceeded by over 3,600 tons.

Catches of flounders other than yellowtail declined from 28,000 to 24,000 tons due to a decrease in the US catch from 21,000 to 17,000 tons. USSR catches remained at about 6,000 tons.

Catches of adult and juvenile herring combined declined from 318,000 tons in 1971 to 236,000 tons in 1972 due to the catch limits set by the Commission in Div. 5Z and Statistical Area 6 of 150,000 tons and in Div. 5Y of 30,000 tons of adult herring. Decreased catches were recorded by Canada (28,000 to 12,000 tons), FRG (56,000 to 31,000 tons), Japan (2,000 to 1,000 tons), Poland (88,000 to 50,000 tons), USSR (81,000 to 48,000 tons) and Bulgaria (5,000 to 2,000 tons). Increased catches were submitted by Romania (1,000 to 2,000 tons), USA (35,000 to 41,000 tons), and GDR (21,000 to 49,000 tons).

Mackerel catches increased from 349,000 to 386,000 tons. Increases were registered by Poland (112,000 to 142,000 tons), USSR (128,000 to 134,000 tons), and GDR (69,000 to 80,000 tons), while decreases were recorded for Romania (5,000 to 3,000 tons) and Bulgaria (29,000 to 24,000 tons).

Sea scallop catches increased from 54,000 to 57,000 tons due mainly to increased catches in Statistical Area 6. Of the total catch, Canada continues to take about 60% from the Georges Bank area, while the remaining 40% was taken by USA, 20% from Georges Bank and 20% from Statistical Area 6.

Squid catches almost doubled to 41,000 tons in 1972. Japan recorded an increase from 11,000 to 19,000 tons, Spain from 4,000 to 8,000 tons, and USSR from 6,000 to 7,000 tons. Poland took over 5,000 tons in 1972.

#### 2. Work Carried Out

a) Bulgaria: Age and length composition of mackerel.

b) Canada: Selectiveity of scallop dredges. Early life history of swordfish. Tagging and length composition of small bluefin tuna.

c) FRG: Age, length and maturity of herring. Autumn larval herring survey. Hydrographic studies.

d) Japan: Length composition of cod, silver hake, herring, mackerel, argentine, butterfish and squid including first approximation of biomass of squid (Loligo pealei).

e) Poland: Age and length composition of herring and mackerel. Hydrographic studies on Georges Bank and Gulf of Maine. Larval herring survey.

f) UK: Continuous plankton recorder sampling over 500 miles.

g) USSR: Length and age composition of red hake, silver hake, yellowtail, argentine, sea herring, mackerel, squid, alewife, Atlantic saury. Egg and larval surveys for red and silver hake, herring, and zooplankton. Feeding of red and silver hake larvae and adult stages of demersal species. Zooplankton and hydrographic studies. Trawl comparison experiments and joint groundfish survey with USA.

h) USA: Length and age composition of haddock, yellowtail and herring. Population studies on all major species including squid and total finfish biomass. Relation of total effort to total catch. Feeding of juvenile haddock and other groundfish. Autumn surveys for larval herring and groundfish. Spring surveys for groundfish and juvenile herring. Underwater studies of spawning herring in Gulf of Maine. Monitoring spawning of cod, haddock and pollock. Respiration, energy utilization, growth and mortality of cod and haddock embryos. Automatic sorting system for fish eggs and larvae and other planktonic components. Hydrography. Trawl gear studies.

#### 3. Hydrography and Plankton

USSR studies on Georges Bank from June to October indicate lower water temperatures in the 0-50 m layer as compared with 1971. Deeper layers (0-100 m, 100 m-bottom) were about the same or higher than those in 1971. Frequent fogs affected the development of phytoplankton in 1972 by reducing available light. Further USSR studies substantiate previous indications that biomass of zooplankton over Georges Bank is decreasing and may be affecting the success or failure of year-classes of commercial fish species.

#### 4. Cod

There is some evidence of increased abundance of young fish (< 37 cm), but the exploited stock in 1974 is expected to be at about the same abundance as in 1972.

#### 5. Haddock

The 1972 year-class was again poor, the ninth successive year of poor production. The stock is now so low that by-catches alone would exceed the surplus yield. The large 1963 year-class is now virtually gone, and the spawning stock is extremely low. The catch quota of 6,000 tons for 1972 was exceeded by 647 tons.

#### 6. Herring

Herring stocks in Div. 5Y and 5Z including Statistical Area 6 declined in 1972. The adult herring catch quota of 30,000 tons in Div. 5Y for 1972 was exceeded by over 9,282 tons. The adult quota of 150,000 tons in Div. 5Z and Statistical Area 6 for 1972 was exceeded by 24,181 tons. The 1970 year-class provided some improvement in recruitment prospects but quantitative estimates could not be made with confidence.

#### 7. Yellowtail Flounder

Population density index of age 1+ fish from both US and USSR surveys indicated a decreased recruitment for 1973 and 1974. The relationship of the stock in Statistical Area 6 to that in Subarea 5 is not precisely known, although some mixture is almost certain to occur because of the contiguous distribution along the dividing line. Further assessment is necessary.

#### 8. Silver Hake

The 1971 year-class was good and can be expected to increase stock size in 1973-74 in all Divisions. Stock size increased in the Gulf of Maine in 1972, but remained the same on Georges Bank and Statistical Area 6.

#### 9. Red Hake

The stock on the western portion of Georges Bank and to the west and south increased in 1972, while that on the eastern portion decreased. The 1972 year-class was assumed to be average strength.

#### 10. Mackerel

Preliminary assessment of the status of the mackerel stocks in Subarea 5 and Statistical Area 6 using different measures of vital statistics and recruitment were not conclusive. Further data and analyses are required.

#### 11. Other Species

Stock density of redfish has remaine.! constant over the best six years. Data for assessment of pollock stocks in Subarea 5 and Subarea 4 were collected. Japanese scientists began studies on squid (Loligo pealei).

#### Seals

Reports on research in 1972 and catch statistics for 1972 and 1973 (provisional) were submitted by Canada, Denmark, and Norway.

#### 1. Status of Fisheries

a) Harp seal: In 1972 the total catch quota for harp seals in the Northwest Atlantic was 150,000 (120,000 for Canadian and Norwegian vessels and 30,000 for Canadian landsmen and small vessels). This was an overall reduction of 50,000 from the total catch quota allowed in 1971. In 1973 the total catch quota remained at 150,000. In all three years the sealing operations were carried out from 12 March to 24 April in the "Front" (Div. 2J and 3KL) and "Gulf" (Div. 4T) areas. Harp seal catches for 1972 and for 1973 (provisional) were as follows:

	1972	1973 (provisional)
"Gulf" area		
by Canadian landsmen and		
small vessels	6,813	7,979
"Front" area		
by Canadian landsmen and		
small vessels	17,315	28,327
by Canadian vessels	52,455	34,044
by Norwegian vessels	53,515	58,290
Total harp seals	130,098	128,640

The reduction in catch from the 235,967 harp seals taken in 1971 was due to reduced catch quota and to closure of the "Gulf" to Canadian vessels beginning in the 1972 sealing season. b) Hood seal: There was no catch quota in 1972 for hood seals but a later opening date of 20 March in 1973 provided some protection for adult females. No hunting was allowed in the "Gulf" area. Catches in 1971, 1972, and 1973 (provisional) were as follows:

	1971	1972	1973 (provisional)
"Front"			
by Canadian landsmen and			
small vessels	62	136	64
by Canadian vessels	348	278	344
by Norwegian vessels	14,514	12,181	6,255
Total hood seal catch	14,924	12,595	6,663

#### 2. Research Carried Out

Canadian photographic aerial surveys were carried out over harp seal whelping areas in the "Gulf" and on the "Front" in 1973. Over 930 young seals were tagged in the southern and central seal patches in the "Front" area. In addition, 214 adults were branded with the symbol 73 in 1973 on the "Front". A sample of 250 seals for age estimation was taken off Northeast Newfoundland in the "Front" area.

A Canadian reconnaissance flight northward along the Labrador coast to Frobisher in March 1973 gave no sign of hood seals. Broken ice only was seen along the route and could account for the below normal catch of hood seals by Norway in 1973.

Studies are being pressed on the assessment of the **bood** seal stock(s).