INTERNATIONAL COMMISSION FOR THE NORTHWEST ATLANTIC FISHERIES

RESTRICTED

PROCEEDINGS

OF THE

21ST ANNUAL MEETING

1971

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INTERNATIONAL COMMISSION FOR THE NORTHWEST ATLANTIC FISHERIES

Serial No. 2647
(B.a. 71)

Proceedings No. 1

ANNUAL MEETING - JUNE 1971

Ceremonial Opening Meeting

Thursday, 27 May, 1000 hrs

1. The Opening Session of the 21st Annual Meeting of the Commission was convened in the Regency Ball Room of the Lord Nelson Hotel, at 1000 hrs on 27 May 1971.

2. The Chairman of the Commission, Dr A.W.H. Needler, Special Adviser to the Minister of Fisheries and Forestry for Canada, welcomed the Commissioners and the Advisers present from thirteen of the fifteen member countries, as well as the observers from other international agencies and the Commission's guests.

3. The Chairman expressed pleasure at having an opportunity to introduce representatives from the County of Halifax, Warden I. Settle; from the City of Dartmouth, Alderman F. Barber; from the City of Halifax, Deputy Major H.G. Ivany; and from the Province of Nova Scotia, Honourable G. Mitchell. He thanked them for demonstrating by their presence their interest in the work of the Commission.

4. The Chairman then introduced the Honourable Jack Davis, Minister of Fisheries and Forestry for Canada, who addressed the meeting on behalf of the Government of Canada as follows:

"Mr Chairman, Distinguished Delegates, Ladies and Gentlemen:

"Welcome to Canada. Welcome to Nova Scotia. Welcome to Halifax. Welcome to a port, to a province and to a country which owes its earliest beginnings to fishing and where fishing still flourishes in the Twentieth Century.

"Soyez les bienvenus au Canada, en Nouvelle-Ecosse, à Halifax, dans un port, une province et un pays dont la pêche a assuré les premiers pas et où la pêche est encore florissante au XXe siècle.

"Last year you met in St. John's, Newfoundland. This year you are holding your annual meeting in Halifax. It gives me great pleasure to welcome you back to Canada again. It gives me great pleasure, not only because I have an opportunity to meet with you personally, but also because the International Commission for the Northwest Atlantic Fisheries has done a great job.

"ICNAF has done a first class job in bringing order out of chaos. It has done a great job, not only for Canada and Canadian fishermen, but also for the fishermen of all the countries which are represented here today.

"Twenty years have passed since ICNAF held its first annual meeting. It held its first annual meeting in Washington. A great deal has happened since then. ICNAF's membership has grown to fifteen. Also there have been great changes in the fishery. Our catching ability is now beginning to outstrip our resources. There are no longer enough fish to go round. There is a very real danger of overfishing in the Northwest Atlantic in the 1970's.

"In the early 1950's there were a few warning signals, it is true. The stocks of haddock on Georges Bank were already being depleted. But the consensus among our experts was that the regulations of a qualitative kind would do. They thought that the declaration of minimum mesh sizes for nets would be sufficient to deal with this problem.

"How wrong they were! What started as a problem with haddock on Georges Bank has become much more widespread. Other species are threatened. Many species are being threatened with overfishing in more areas in the North Atlantic. Rarely is an increase in fishing effort rewarded by anything like a comparable increase in catch. The law of diminishing returns is setting in with a vengeance and we, collectively, have to do something about it.

"The history of ICNAF is interesting. At first it was largely a research and data gathering body. But more and more of this knowledge and this data is being used to programme the operations of our fisheries. It is being used to frame regulations which apply to us all. It is being used to develop estimates of sustainable yield. It is being used to project costs. It is being used to raise average incomes in an industry which has been plagued with uncertainty and poor prices in the past.

"Demand, broadly speaking, is no longer a problem. The markets are there and prices are tending to increase. But firmness in the marketplace is also due, more and more, to an underlying worry about supply. It is supply more than demand which will govern the shape of our fisheries in the future. It is the adequacy of fish stocks and the way in which our Northwest Atlantic fishery is managed, which will determine how well things develop for us in the 1970's and 1980's.

"ICNAF is now 20 years old. Like most 20-year-olds it is facing increased responsibility. Technologically speaking, our fishing fleets have come of age. Their catching capacity has increased many fold. They are mechanized to the n^{th} degree. They are using the latest electronic devices to find fish. They are using the latest harvesting techniques. They are processing catches on board and they are tailoring their product to the market as never before.

"But nature, it seems, cannot keep up with us. The regeneration of fish stocks is not sufficient to withstand this attack from outside. We have now, or will soon have, too many fishing vessels chasing too few fish. We are now, or will soon be, over-equipped. The Northwest Atlantic fishery is over-manned today. With even better boats and even better gear, it will have too much fishing capacity by 1975 if we aren't careful.

"ICNAF, I know, is on top of the situation. It sees that conditions are changing and changing drastically. It has already acted to meet this challenge. It has asked the member countries which it represents to give it new powers. It has asked for changes in the convention under which it operates. It has streamlined its procedures and it has added teeth to its regulations with a view to managing the fish stocks in the Northwest Atlantic in a more enlightened way.

"Your Commission now believes that it is necessary to regulate, not only fishing methods and fishing gear, but also the intensity of our fishing effort. It recognizes that each country's catch, itself, is also important.

"Two years ago ICNAF took an historic decision. It recommended quotas for the first time. It recommended quotas in the important haddock fishery on Georges Bank. These regulations were put into effect in 1970. They'll continue in 1971. With modifications we'll need them throughout the 70's. We'll need them, in view of our greatly increased fishing capacity, for all time to come.

"We need more quotas. We need more overall quotas in other areas of the Northwest Atlantic. We need more overall quotas per species other than haddock. We'll soon need them for cod, redfish and flounders as well.

"Your Commission hasn't stopped with quotas. It realized that overall quotas, alone, could lead to a mad scramble by our fishermen for a larger individual share of a limited amount of fish. So the division of the quota, among nations, has now moved to the centre of the stage. The Commission is now asking for authority to set up national quotas. And with national quotas each country will be in a position to plan its own fishing operations in a rational way.

"Most member countries have already approved this new recommendation by ICNAF. I hope that the hold-outs will also approve the idea of national quotas in the near future. Then we, jointly and separately, can practice conservation in an enlightened way. We can tailor the size of our fleets to match our national quotas. Also we will have a strong financial incentive to see to it that we get the largest sustainable yield from the Northwest Atlantic fishery with a minimum of effort on our part.

"Canada is a strong believer in conservation. We are opposed to over-fishing. We are opposed to greedy practices which result in an over-capitalization of the fishing industry in the short run and idle vessels and empty nets in the long run.

"We believe, instead, in a scientifically-based and scientifically-managed fishery. In the Northwest Atlantic we also believe in an international fishery. An international fishery need not be chaotic. It too can be organized in such a way as to maintain stocks and increase the productivity of the individual fisherman.

"But this calls for new disciplines. It calls for new regulations. It calls for leadership by your Commission. It calls for joint leadership by all 15 members of ICNAF. And it calls for a sharing in the decision-making process.

"No discipline should be introduced without debate. Any idea which is worthwhile can stand up to thorough discussion. ICNAF has provided us with a forum for sharing our views. It has also helped us to hammer out differences and to arrive at common goals. Speaking for the fisheries of Canada, I hope that this will continue, always, to be the case.

"As a country we have special views of our own. For example, we shall continue to press for a ban on the fishing for Atlantic salmon on the high seas. We believe that these salmon should only be caught in or near the rivers in which they spawn. Otherwise, there will be little or no incentive to preserve these rivers from pollution on the one hand, and the construction of hydro-electric dams on the other.

"As Canadians, we are very concerned about the groundfish stocks out over our Continental Shelf. We are doubly concerned because we have large numbers of inshore fishermen, as well as large trawlers operating many miles from our shores. We have hundreds of small, isolated communities which depend exclusively on fishing for threatened species like cod. Their catch, per fisherman, has been cut roughly in half since the early 1950's. This is a trend which, if it continues, means real hardship for tens of thousands of Canadians living in Newfoundland and the Maritime Provinces. Many of them live at the poverty level already. Continued overfishing offshore will therefore become an offence, not only against Nature in the shape of our fish stocks, but also against Mankind as well.

"We are concerned about the sudden expansion of our herring fishery. As is the case with Atlantic salmon we have set strict limits on the amount of gear which can be used to take these fish in the future. We are concerned about the decline in seal populations and we want to make certain that our seal fishery, too, will be operated with an eye to the long-term future.

"We will be presenting papers at this Conference and our representatives will be discussing these matters during the course of your meeting. I need not elaborate on them further. However, before I sit down, I would like to make one final point. The Northwest Atlantic fishery is an international fishery and its prosperity is vital to us all.

"The problem of overfishing is not a new one. It has been encountered in many other parts of the world. But we are able to deal with it at an earlier stage in the Northwest Atlantic. We can deal with it quickly if we get together. We can deal with it more effectively if we cooperate. And we can deal with it without suffering some of the serious setbacks to fish stocks and to people which have often been the case elsewhere.

"ICNAF, in other words, can do a pioneering job. It can do on a smaller scale what the United Nations may be able to do eventually on a global scale. It can move in a great area of the Atlantic before it is too late. And it can move intelligently and productively towards a better regime for our international fishery in the 70's.

"To the delegates and scientific advisers which come from all the member countries of ICNAF I say "good luck". To all of you I say "bonne chance". I wish you all the best in your deliberations here in Halifax. I know that they will be productive. I know that you will continue to show us the way. We look to you, now for guidance. We are looking to you to make the Northwest Atlantic the most productive part of the high seas to fish in, not only in the 1970's but for all time to come!

"Thank you very much, Mr Chairman."

5. The Chairman thanked the Minister for his warm welcome and encouraging remarks. He introduced Mr K. Løkkegaard (Denmark), the Vice-Chairman of the Commission, and Mr L.R. Day, Executive Secretary of the Commission. He then declared the 21st Annual Meeting of the Commission recessed to 1130 hrs, when the first business session would be called to order.

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INTERNATIONAL COMMISSION FOR THE NORTHWEST ATLANTIC FISHERIES

Serial No. 2648
(B.e.71)

Proceedings No. 2

ANNUAL MEETING - JUNE 1971

Report of Meeting of Panel 1

Friday, 28 May, 1430 hrs

1. The meeting was opened by the Chairman, Mr K. Løkkegaard (Denmark). Representatives of all member countries were present and Observers from FAO, ICES and EEC also attended.

2. Rapporteur. Dr H.A. Cole (UK) was appointed Rapporteur.

3. Agenda. The agenda for the meeting, as circulated, was adopted.

4. Panel Membership. No changes in the membership of Panel 1 were proposed.

5. Report of Scientific Advisers. The Chairman of the Scientific Advisers to Panel 1, Dr A. Meyer (Fed. Rep. Germany), presented a summary of the Status of the Fisheries and Research carried out in Subarea 1 and East Greenland (Appendix II; also Res.Doc. 71/133) and the Report of the Meeting of Scientific Advisers to Panel 1 (Appendix I). He drew attention to the further decline in the catch of cod due to very severe ice conditions, which caused a diversion of effort to other areas, and to relatively poor recruitment of young cod in recent years. Dr Meyer mentioned that the trends in climatic conditions had been reviewed at the Environmental Symposium held immediately prior to the meeting of the Research and Statistics Committee. The Report of the Panel 1 Advisers was adopted.

6. Review of Conservation Measures and Requirements. The Chairman noted that the Report of the Panel Advisers made no suggestions for additional conservation measures. It was agreed that questions relating to salmon would be dealt with by the Joint Meeting of Panels 1-5 (see Proc. 11).

7. Future Research. The Chairman drew attention to the recommendation of STACRES that ICNAF should join with ICES in a Working Group on Cod Stocks in the North Atlantic. Support for this proposal was given by the Fed. Rep. Germany and the ICES Observer who spoke of the importance of the work of this Group. The Panel therefore

recommends

that the Commission give consideration to the early appointment of participants to a joint ICES/ICNAF Working Group on North Atlantic Cod, so that plans could be made for the necessary work.

Norway asked for an explanation of that part of the STACRES recommendation which related to the number of participants in the Working Group. The Observer from ICES explained that the invitation from ICES to join this Working Group did not define the number of participants. It was agreed to refer this matter to the Plenary Session.

The Panel also supported the STACRES recommendation for additional groundfish surveys in Subarea 1.

8. Date and Place of Next Meeting. It was agreed that the next meeting of the Panel would be held at the time and place of the 1972 meeting of ICNAF.

9. Other Business. The UK expressed thanks for Dr Meyer's work as Chairman of Scientific Advisers during the last three years and this was endorsed by other members of the Panel.

10. Approval of the Panel Report. It was agreed that a draft would be circulated for approval among the Panel members.

11. Election of Chairman for 1971-1972 and 1972-1973. Mr G. Mocklinghoff (Fed. Rep. Germany) was elected Chairman for 1971-1972 and 1972-1973. The Panel recorded its thanks to Mr K. Løkkegaard (Denmark) for his able conduct of the Panel meetings over the last two years.

12. Adjournment. There being no other business, the Panel adjourned at 1525 hrs.

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INTERNATIONAL COMMISSION FOR THE NORTHWEST ATLANTIC FISHERIES

Serial No. 2648
(B.f.4)

Proceedings No. 2
Appendix I

ANNUAL MEETING - JUNE 1971

Report of Meeting of Scientific Advisers to Panel 1

Wednesday, 26 May, 0900 hrs

1. The Chairman, Dr A. Meyer (Fed. Rep. Germany), opened the meeting and welcomed Scientific Advisers and observers.

2. Mr A.T. Pinhorn (Canada) was appointed Rapporteur.

3. The agenda, as distributed by the Chairman, was adopted.

4. Advisers from all member countries of the Panel, except Norway, as well as observers from Canada and ICES were present.

5. The Chairman presented his summary report of the Status of the Fishery and Research carried out in Subarea 1 and East Greenland in 1970 (Appendix II; also Res.Doc. 71/133 Revised). The report was adopted with minor changes.

6. Dr Meyer (Fed. Rep. Germany) reported on the status of the German fishery and research carried out for the first five months of 1971. Fishing was again hampered by ice in March and May and the fleet had to move twice to East Greenland. The German catch from Subarea 1 and East Greenland in 1971 will probably be greater than the 1970 catch because the fleet was forced to leave Labrador earlier than in 1970, and because of improved stock condition in Div. 1D and Div. 1C (1965 and 1966 year-classes). Dr Meyer further reported on the fishery on spawning cod in Div. 1C in depths between 300 and 1,000 m.

Mr Horsted (Denmark) reported good catches on Fyllas and Banana Banks by the Greenland trawlers in the first quarter of the year and expressed the view that the 1966 year-class may be a relatively important one. The catch per day was better than in 1970. However, the ice conditions were again severe, especially in the northern coastal areas, and therefore the shore fishery was very poor.

Dr Jonsson (Iceland) reported on a survey cruise in April 1971 with the new Icelandic research vessel to East Greenland and on the spawning of cod in the Fylkir Bank area and indicated that with the new research ship more intensive Icelandic research was planned in the East Greenland area.

7. The Chairman raised the question of the presentation of the Chairmen's Reports on Summaries of Fisheries and Research by Subarea in Part 3 of the Annual Proceedings, where a condensed version of the Report is published by the Secretariat. It was the consensus of the Scientific Advisers to Panel 1 that a research report revised and adopted by the Scientific Advisers should not be changed. It was therefore

recommended

that the reports of the Chairmen of Scientific Advisers to the Panels be published in the Meeting Proceedings as appendices to the Reports of the Panel Meetings and that each Chairman should have an opportunity to review the condensed version for inclusion in Part 3 of the Annual Proceedings before it is published.

8. The Chairman expressed the view that, as in other committees of ICNAF, the Chairmen of Scientific Advisers to Panels should be elected for a three-year term only and having served for three years, he requested the election of a new Chairman.

9. Mr Horsted (Denmark) was elected Chairman of Scientific Advisers to Panel 1.

10. Dr E. Smidt (Denmark) presented an illustrated Summary Report of ICNAF

Environmental Survey: NORWESTLANT, 1963 and the Scientific Advisers to Panel 1

recommended

that this report be published as a document to the 1971 Annual Meeting and subsequently in Redbook, Part III.

11. Dr A.W. May (Canada) presented a film on the salmon tagging experiments conducted by Canada with the research vessel *A.T. Cameron* off West Greenland in 1970.

12. Mr Horsted (Denmark) expressed the Panel Advisers' thanks to Dr Meyer (Fed. Rep. Germany) for his excellent service as Chairman in the past three years.

13. The meeting was adjourned at 1130 hrs.

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INTERNATIONAL COMMISSION FOR THE NORTHWEST ATLANTIC FISHERIES

Serial No. 2639
(D.b.70)

Proceedings No. 2
Appendix II
(also ICNAF Res.Doc. 71/133 Revised)

ANNUAL MEETING - JUNE 1971

Status of Fisheries and Research carried out in Subarea 1 and East Greenland in 1970

by

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This summary is based on research reports from the following countries (1971 Research Document numbers in brackets): Canada (43), Denmark (49), Fed. Rep. Germany (47), France (46), Japan (45), Poland (50), Portugal (51), Spain (48), USSR (53), UK (54), USA (55). Further Research Documents referring to Subarea 1 are: Statistics (26, 27), Cod stock (9, 11, 58, 103), *Macrurus* (89), Hydrography (86, 97), Salmon (2, 3, 4, 24, 25, 33, 63-70, 72, 73, Comm.Doc. 14).

1. Status of the Fisheries

A. Subarea 1

Table 1 gives the nominal catches from Subarea 1 (total, cod, and redfish) for 1962, 1968, 1969 and 1970. The catches of non-members are unknown for 1969 and 1970 but are thought to be small.

TABLE 1. Nominal catches from Subarea 1 (thousand metric tons)

	Total				Cod				Redfish			
Total	1962	1968	1969	1970	1962	1968	1969	1970	1962	1968	1969	1970
(all species)	530	420	225[1]	140[1]	451	382	205[1]	112[1]	61	9	4[1]	4[1]
Canada	-	+	-	-	-	+	-	-	-	-	-	-
Denmark (F)	93	46	19	8	93	46	18	8	+	-	-	+
Denmark (G)	41	33	38	38	35	21	24	20	+	+	+	+
Denmark (M)	-	-	+	+	-	-	-	-	-	-	-	-
France	53	47	25	5	53	47	25	5	-	+	-	+
Fed. Rep. Germany	192	145	83	45	125	133	79	41	55	9	4	4
Iceland	6	+	+	-	1	+	+	-	4	-	-	-
Japan	-	+	+	-	-	+	+	-	-	+	+	-
Norway	32	51	19	7	32	51	18	6	-	+	+	+
Poland	1	1	+	+	+	1	+	+	+	+	+	+
Portugal	92	33	16	9	92	33	16	9	-	-	-	-
Spain	3	22	24	19	3	22	24	19	-	-	-	-
USSR	-	2	+	8	-	2	+	1	-	+	+	+
UK	17	10	1	3	16	10	1	3	+	+	-	+
USA	-	-	+	+	-	-	+	+	-	-	+	-
Non-Member	-	29	?	?	-	28	?	?	-	+	?	?

[1] Catch from non-member countries for 1969 and 1970 not yet reported.

The total catch from Subarea 1 decreased to 140,000 tons (62% of the 1969 catch). This is only 26% of the highest recorded catch in 1962 and 134,000 tons lower than the lowest catch since publication of ICNAF statistics began in 1952. The sharp downward trend is most obvious in the catches by Denmark (Faroes), France, Fed. Rep. Germany, Norway, and Portugal.

Cod catches decreased by a further 93,000 tons. The cod catch of 112,000 tons in 1970 is only one quarter of that of 1962. Also the percentage of cod in the total catch decreased in 1970 to 80% (1969: 90%), an indication of the increase in catches

of capelin, *Macrurus*, lumpsucker, Greenland halibut and deep sea prawn. The reasons for the further sharp decline of cod in 1970 are thought to be - as also expressed in last year's report -

1) very severe ice conditions - for the third successive year - which from March to August reduced considerably the availability of cod,
2) relatively poor recruitment of young cod in recent years, which had an adverse effect on the fishery in the second half of the year, when younger cod are normally fished, and
3) the combined effects of 1) and 2) above, which led to a diversion of fishing effort to other areas.

Redfish catches were again as low as in the preceding year and made up only 7% of those of 1962.

As in other areas the fishery for Capelin (1970: 3,100 tons) seems to be of growing importance.

Salmon catches made by Denmark (358 tons), Faroes (282 tons), Greenland (1,267 tons), Norway (270 tons), and Sweden (8 tons) made up 2,192 tons (including 7 tons caught in the northern Labrador Sea by Greenland vessels) and were 18 tons less than in 1969.

The fishery for Deep Sea Prawn is of growing importance. The catches, now also coming from offshore grounds, increased by a further 27% to 8,400 tons.

B. East Greenland

Table 2 shows the nominal catches (total, cod, and redfish) of the last three years, nearly all taken by Fed. Rep. Germany and Icelandic trawlers off East Greenland. The decrease by 11,000 tons to 39,000 tons in 1970 was due to a decrease in market demand for fresh fish and the consequent decrease in fishing activity of German wetfish trawlers. The catch of cod, however, increased slightly and in 1970, for the first time since fishing off East Greenland started in 1954, the cod catches exceeded those of redfish.

TABLE 2. Nominal catches from East Greenland (thousand metric tons).

	Total			Cod			Redfish		
	1968	1969	1970	1968	1969	1970	1968	1969	1970
Total	40	50	39	16	18	20	23	30	17
Denmark (G)	1	1	1	1	1	1	+	+	+
Fed. Rep. Germany	27	41	31	8	13	14	18	26	16
Iceland	13	9	7	7	4	5	6	4	1
USSR	-	+	+	-	+	+	-	+	+
UK	+	-	-	+	-	-	-	-	-

2. Research Work

Research work in Subarea 1 and off East Greenland was reported by Canada, Denmark, Fed. Rep. Germany, France, Poland, USSR and UK.

A. Hydrography

Hydrographic studies, covering the whole Greenlandic area from Dohrn Bank off East Greenland to north of Disko Island off West Greenland, were performed by Canada, Denmark, France, Fed. Rep. Germany and USSR. 1970 was again a severe ice year. The northward flow of ice started earlier than in 1969. Already in March the ice, which normally progresses no further than Cape Desolation (60°45'N), reached the northern edge of Fiskenaes Bank (63°30'N). In April it extended to north of Godthaab (64°30'N). Northerly winds in May temporarily scattered the ice. However, in July to August the "Storis" again extended to north of Godthaab.

As in the two preceding years, the temperatures were unusually low in the upper 100 m. On the western slope of Fyllas Bank negative temperatures were recorded by Denmark for the first time as late as September. The temperature and salinity anomalies (from the mean of 1950 to 1966) in the upper 400 m, in July west of Fyllas Bank, in the range of -1.12 to -2.06°C and -0.3 to -0.6°/$_{oo}$ respectively, indicate an unusually strong inflow of polar water to the West Greenland area.

USSR scientists showed that in September and October off South Greenland temperatures were 1 to 4°C lower than those recorded since their investigations started in 1961.

The strong decrease in temperatures in the last half of the sixties is rather alarming especially in respect to the survival of cod larvae (see Section D below).

B. Geophysics

Geophysical surveys were carried out by Canada in Baffin Bay.

C. Plankton

Continuous Plankton Recorders, operated from the Oceanographic Laboratory in Edinburgh, sampled 1,370 miles in Subarea 1.

D. Cod

1. Eggs and larvae

Eggs and larvae were sampled off West Greenland in May to July by Denmark and France. The numbers found were even smaller than in 1969, when eggs and larvae were scarce. The sampling results as well as the hydrographic conditions indicate a very poor West Greenland 1970 year-class.

2. Young fish (age-groups I, II and III)

Young fish studies by Denmark with small-meshed trawls and pound nets showed that, in Div. 1B as well as in Div. 1D and Div. 1F, the 1967 to 1969 year-classes were very poor. Standard trawling stations for better information of pre-recruits are now fished continuously.

3. Commercial stock

Investigations by Denmark, Fed. Rep. Germany, Poland and USSR show that, in the commercial catches in the northern Div. 1B to Div. 1D, the 1965 and 1966 year-classes are by far the most important. Both year-classes were found to be of pure West Greenland origin and therefore are more or less missing from the southern Div. 1E and Div. 1F.

In 1970, the 1965 year-class became important for the first time in the offshore commercial catches, while almost to the end of the year the 1966 year-class had been the only year-class fished offshore. These two year-classes, which probably are at least of medium size, will become of increasing importance for the West Greenland fishery in 1971 and 1972.

Off Southwest and South Greenland, where during the last two years and especially in 1970 the fishing activity by the Red. Rep. Germany fleet increased in proportion to that in the northern divisions, the 1963 year-class dominated followed by the 1962 and 1961 year-classes. Most of these 7- to 9-year-old cod were born off East Greenland. They were fished mainly during the first half of the year off Southwest, South and East Greenland, on their way to spawning grounds off East Greenland, during spawning, and on their way back to Southwest Greenland and as post-spawners. In the catches on the spawning grounds the cod of the rich 1961 year-class were dominant. A considerable part of the mature cod emigrated to Iceland for spawning.

The above-mentioned unusually heavy ice-cover over the fishing banks must have again reduced considerably the fishing mortality of the older cod, especially during the time of its post-spawning migration.

4. Tagging

A total of 1,642 cod were tagged by Denmark of which 796 were small cod.

E. Atlantic Salmon

The latest results of salmon investigations are presented in the report of the meeting of the ICES/ICNAF Joint Working Party on North Atlantic Salmon, Pitlochry, 29 March-1 April 1970 (Comm.Doc. 71/14).

G. Other Fish

Denmark started studies on American plaice, a species regarded as a possible resource for the industry. In Godthaab Fjord, 639 Greenland halibut were tagged. In the same area and in the Julianshaab district, herring catches were investigated and 305 herring tagged.

The USSR reported on feeding and migration of the roundnose grenadier and their length composition and sex ratio in West Greenland waters.

H. Deep Sea Prawn

Denmark extended its offshore research catches for deep sea prawn in Div. 1B and Div. 1D, also to Div. 1E.

INTERNATIONAL COMMISSION FOR THE NORTHWEST ATLANTIC FISHERIES

RESTRICTED

Serial No. 2649
(B.e.71)

Proceedings No. 3

ANNUAL MEETING - JUNE 1971

Report of Meeting of Panel 2

Friday, 28 May, 1600 hrs

1. The Panel met under the Chairmanship of Captain T. de Almeida (Portugal). Representatives of all member countries, except Romania, were present.

2. Rapporteur. Dr W. Templeman (Canada) was appointed Rapporteur.

3. Agenda. The agenda, as circulated, was adopted.

4. Panel Memberships. There was no change in Panel membership. The Chairman on behalf of the other members of the Panel welcomed Norway and Romania as members of Panel 2.

5. Report of Chairman of Scientific Advisers. Dr W. Templeman (Canada) presented his report on the Status of the Fisheries and Research carried out (Appendix II; also Res.Doc. 71/135) and the Report of the Meeting of Scientific Advisers to the Panel (Appendix I). The Panel approved these reports without change. The Chairman on behalf of Panel 2 thanked Dr Templeman and the Scientific Advisers for their work.

6. Review of Conservation Measures and Requirements. The Chairman noted the review of assessment work in the reports of the Chairman of Scientific Advisers and of the Meeting of Scientific Advisers. There were no comments.

The Polish delegate said that although in 1970 Poland had made a reservation on the new mesh size for Subarea 2 until 1 July 1971, his country, because of practical difficulties, was unable to comply fully with the regulation until January 1972 and wished, therefore, to have its date of entry into force for this regulation delayed to January 1972. He said that Poland, however, is gradually introducing the new mesh size.

The Portuguese delegate said that, for practical reasons, Portugal was also late in complying with the new mesh regulation and is not sure of the beginning date for its introduction and, therefore, asks for a delay for introducing the new mesh size.

The Spanish delegate said that his country was in the same position as Poland with regard to the date of introduction of the new mesh size.

The Chairman said, and the Panel agreed, that in its minutes of this meeting the Panel would transmit to the Commission Plenary the statements of Poland, Portugal and Spain, regarding the necessity for delay in the full implementation of the new mesh size by these countries, and recommend that the Commission agree to the delays requested.

7. Future Research Required. The Report of Scientific Advisers and the Research programs submitted by member countries contain summaries of plans for future research. No additional research plans were submitted.

8. Date and Place of Next Meeting. It was agreed that the next meeting of the Panel should be at the time and place of the next ICNAF meeting. Scientific Advisers will meet during the previous week.

9. Other Business. There was no other business.

10. Approval of Panel Report. It was agreed to circulate the Panel report among the Panel members for approval.

11. Election of Chairman. On motion of Mr Lund (Norway), seconded by Mr Graham (UK), Captain T. de Almeida was unanimously elected Chairman of the Panel for the ensuing two years.

12. The meeting adjourned at 1640 hrs.

INTERNATIONAL COMMISSION FOR THE NORTHWEST ATLANTIC FISHERIES

RESTRICTED

Serial No. 2649
(B.f.5)

Proceedings No. 3
Appendix I

ANNUAL MEETING - JUNE 1971

Report of Meeting of Scientific Advisers to Panel 2

Wednesday, 26 May, 1145 hrs

1. The meeting was opened by Dr W. Templeman (Canada) who acted as Chairman in the place of Dr A. S. Bogdanov (USSR). Scientific Advisers were present from the following member countries of the Panel: Canada, France, Fed. Rep. Germany, Poland, Portugal, Spain, USSR and UK.

2. Dr A. W. May (Canada) was appointed Rapporteur.

3. The agenda for Panel 2, as relevant, was adopted for the meeting.

4. The Chairman presented his summary report on the Status of the Fisheries and Research carried out in Subarea 2 in 1970 (Appendix II; also Res.Doc. 71/135 Revised). After some discussion of various items the report was adopted as presented.

5. The results of a new cod assessment were summarized by Mr A. T. Pinhorn (Canada). Curves of yield-per-recruit derived from this assessment showed that further increases in fishing would not produce a long-term increase in yield-per-recruit. Because of year-to-year environmental variations, however, annual catch-per-unit-effort will vary more than in other areas. A severe catch reduction in 1970 was due partly to ice conditions, and partly to decreased abundance of fully recruited year-classes. Dr A. Meyer noted that catch-per-day in the German fleet was less than in 1969. The Chairman of the Assessments Subcommittee noted that there were indications of increased recruitment from recent surveys; nevertheless the present reduced abundance of older fish could result in decreased recruitment in the long term. It was noted that assessments in this area must also be related to assessments which are not yet complete, in Div. 3K and 3L, since the cod stock ranges over these areas as well.

6. The Chairman noted that future research plans were circulated in advance of the meeting and were contained in various research reports. The Assessments Subcommittee Chairman emphasized the need for more comprehensive and coordinated groundfish surveys in this area in order to improve future assessments. It was noted that data bearing on stock definition problems in Subarea 2 and the northern parts of Subarea 3 (tagging and meristic data) are in existence but have not been fully analysed or reported. The Advisers stressed the importance of examining the material before undertaking future research in this field.

7. It was agreed that the next meeting of Scientific Advisers should be held during the 1972 ICNAF meeting.

8. It was agreed that the report of the current meeting would be prepared by the Chairman and Rapporteur and circulated among the Advisers for approval.

9. Dr W. Templeman (Canada) was elected Chairman of Advisers to Panel 2 for the following year.

RESTRICTED

INTERNATIONAL COMMISSION FOR THE NORTHWEST ATLANTIC FISHERIES

Serial No. 2641
(D.b.70)

Proceedings No. 3
Appendix II
(also ICNAF Res.Doc. 71/135 Revised)

ANNUAL MEETING - JUNE 1971

Status of Fisheries and Research Carried out in Subarea 2 in 1970

by

W. Templeman
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Biological Station, St. John's, Nfld., Can.

Reports on researches in Subarea 2 were submitted by the following countries: Canada, Fed. Rep. Germany, Poland, Portugal, Spain, USSR, UK, and USA.

1. Status of Fisheries

The total landings of all species were about 266 thousand metric tons (509 thousand tons in 1969). Landings by country in 1970 in metric tons (1969 in parentheses) were: Canada, 2,659 (5,364); Denmark, 411 (1,909); France, 15,824 (29,774); Fed. Rep. Germany, 50,520 (72,378); Poland, 40,691 (65,437); Portugal, 42,013 (66,082); Spain, 10,683 (33,152); USSR, 65,423 (154,437); UK, 2,602 (2,158); USA, 505 (391).

Nominal catches, in thousands of metric tons round fresh, of species whose yearly landings from the Subarea are more than one thousand tons are shown in the table below:

	1966	1967	1968	1969[a]	1970[b]
All species	367	328	482	509	266
Cod	338	298	449	465	231
Redfish	14	17	9	11	11
American plaice and Witch flounder	2	3	3	7[c]	7[cd]
Greenland Halibut	2	5	8	16	11

[a]
[b] Calculation for non-member countries included.
[c] Calculation for non-member countries included.
[d] Should be increased slightly for non-members. Information not available. American plaice (2), witch flounder (5).

2. Work Carried Out

(a) Canada: The standard section from off Seal Island in southern Labrador across Hamilton Inlet Bank was occupied on 2-3 August. The failure of the inshore Labrador fishery was investigated in August. Assessment work was carried out on cod of the area using "Virtual Population" methods. Aerial photographic survey was carried out for harp seals.

(b) Fed. Rep. Germany: Cod were measured, sexed and aged, and some work carried out in cod fecundity.

(c) Poland: Cod, redfish and American plaice were measured and aged, and Greenland halibut measured.

(d) Portugal: Cod from Div. 2J were measured and aged.

(e) Spain: Cod were measured, sexed and aged.

(f) USSR: The standard section 8-A, extending over Hamilton Inlet Bank, was occupied in late October. Cod were measured and aged, and cod tagging was carried out in Div. 2J. Total and natural mortality rates were calculated for cod.

(g) UK: Over 3,400 miles were sampled by the Continuous Plankton Recorder.

(h) USA: The US Coast Guard studied short-term variations in the Labrador Current using moored buoys from 15 July to 11 August.

3. Hydrography

In early August, temperatures and salinities in the colder more shoreward part of the Labrador Current off southern Labrador were below average, but, in the deep water of the Continental Slope in the part of the Labrador Current derived from the West Greenland Current, both temperatures and salinities were above average and often higher than the highest previously recorded. Below average temperatures in the upper 200 m were also found in late October. The decreasing temperatures and salinities recorded in 1970 in the deep water of the West Greenland Current presumably forecast lower temperatures and salinities in the deeper water on the Continental Slope of the Labrador and Newfoundland shelves in 1972.

4. Plankton

The Plankton Recorder Survey indicated that the numbers of copepods were close to the long-term mean (1962-1969).

5. Cod

The Canadian inshore fishery was a failure due to lack of cod and decreased to only 2,038 tons, compared with 5,364 tons in 1969, 17,900 tons in 1968, and 27,700 tons in 1967. Inshore bottom water temperatures were low and there was rapid fouling of nets in the inshore region by "slub", mainly the diatom *Chaetoceros socialis*. Assessments by the "Virtual Populations" method showed that the numbers of older (7+) cod have declined in recent years and indicated that the quantities of younger fish have increased. Fishing mortality indices for cod increased from 0.06 in 1959 to 0.36 in 1961 and were at various levels between 0.28 and 0.57 for different years between 1962 and 1968. Cod in the area are 50% recruited at age 6 and are fully recruited at age 8 with insignificant numbers of 2- and 3-year-old fish being taken. The reduction in the inshore landings in recent years has not been due in any considerable degree to decreased effort and has been very much more severe than that in the offshore landings. The inshore fishery of Labrador has traditionally depended on mature fish which spawn in the offshore area and migrate to the coast for feeding, mainly in June and July. Immature fish were not a significant part of this inshore fishery even in the period when no offshore fishery existed. It is very likely that the reduction in the age and numbers of mature fish by the offshore fishery and the consequent great reduction in the total amount of food needed, have been largely responsible for the much smaller numbers of the cod migrating shoreward and the earlier depletion of the fishery in the inshore than in the offshore area.

The total catch (97% cod) of the Fed. Rep. Germany in Subarea 2 decreased by 32% from that of 1969. This decline was mainly due to a reduction of 25% in fishing effort. Ice conditions interfered with the fishery more than in 1969 and the area of optimum bottom temperature was more expanded than in 1969. Eighty-nine percent of the total catch was taken between February and April. The predominant length groups were 40-60 cm and the predominant year-classes 1962-1965. The reduction in effort when the German fleet was driven from Div. 2J by ice in March was compensated for by a corresponding shift in effort to the same stock of cod in the most northern part of Div. 3K from March to May. But even the combined German catches in Subareas 2 and 3 show a decline of 19% against 1969, although the total effort was almost the same.

Polish daily yields, mainly of cod, from Subarea 2 in January-April decreased from 35.5 tons to 32.1 tons per day fished. (However, in ICNAF Res.Doc. 71/104 the Polish catch-per-hour of cod in the first half of the year decreased from that of 1969 by 35% in Div. 2H and 24% in Div. 2J.) Fishing effort decreased by 33%. Most of the cod landed were 24-59 cm in length and 3 to 7 years of age. The most abundant year-classes were those of 1961-1963 and 1965-1967.

Spanish researchers found the most numerous age-group to be 5 years old (1965 year-class); the average length of cod measured was 47.8 cm (53.3 cm in 1969) and the average age 5.3 (5.7 in 1969).

In the Portuguese cod sampling the most numerous year-classes were of 1963 and 1964 (7 and 6 years old).

The main part of the USSR cod catch was 48-62 cm in length, belonging to the 1961, 1962 and 1963 year-classes, all of which were indicated by young cod surveys in preceding years to be slightly above the average level. Young fish survey data indicate that the 1966 and 1967 year-classes are highly abundant. The total mortality index of Div. 2J cod was 0.67 (48.8% annual mortality). The calculated natural mortality rate lay between 0.080 and 0.343 with a mid-point of 0.22.

6. Redfish

Polish measurements of redfish *(Sebastes mentella)* in Div. 2H ranged from 19-52 cm (mainly 28-45 cm). Ages ranged from 4 to 31 years and the mean age was 13.7 years. In Div. 2J redfish measured were 19-48 cm long (mean length 32.4 cm). The range of ages was 5-23 and the mean age 12-14 years.

7. American Plaice

American plaice measured by Poland from Div. 2J were 24-49 cm long and 4-16 years old.

8. Greenland Halibut

Greenland halibut measured by Poland from Div. 2H were 37-105 cm long and had a mean length of 68.7 cm.

9. Atlantic Salmon

Of 27 Atlantic salmon tagged by Canada in the Labrador Sea in April, three recaptures were made on the Canadian mainland. In cosstal salmon of the Pack's Harbour area of Labrador, 85% of the salmon stomachs were empty. The main food consisted of pteropods, launce, baby cod and capelin. In the Labrador Sea the main food was *Paralepis coregonoides borealis*, arctic squid and fish remains. Biochemical studies of 25 salmon caught in the southern part of the Labrador Sea, close to the Labrador and Northeast Newfoundland shelves, in the spring of 1970 indicated 52% of European origin. This percentage is most unexpected and is similar to the 51% of European origin obtained for 204 Atlantic salmon taken off West Greenland and in the Labrador Sea in the autumn of 1970.

10. Mackerel

Canada reported mackerel to be relatively abundant in southern Labrador coastal waters in August-September and they were reported at Cape Harrison, further north than their most northerly recorded extension in previous years to Black Island ($53^{o}46'N$).

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INTERNATIONAL COMMISSION FOR THE NORTHWEST ATLANTIC FISHERIES

Serial No. 2650
(B.e.71)

Proceedings No. 4

ANNUAL MEETING - JUNE 1971

Report of Meeting of Panel 3

Tuesday, 1 June, 1430 hrs

1. The meeting was opened by the Chairman, Mr A. Volkov (USSR). Representatives of Canada, Denmark, France, Norway, Poland, Portugal, Spain, USSR, UK and USA attended. Japan and the Fed. Rep. Germany were represented by observers.

2. Rapporteur. Dr F. D. McCracken (Canada) was appointed Rapporteur.

3. Agenda. The agenda as prepared was adopted.

4. Panel Membership. Japan applied for membership in the panel and the application was unanimously approved.

5. Report of Scientific Advisers. Dr H. A. Cole (UK) presented a summary of the Status of Fisheries and Research carried out during 1970 (Appendix II; also Res.Doc. 71/131) and the Report of the Meeting of Scientific Advisers (Appendix I).

He noted, that making assumptions about catches by non-member countries, it appeared that total catches had declined about 20,000 tons. He again called special attention to the recent yield/effort assessments for cod which indicated that the level of fishing in recent years has probably been beyond that generating the maximum long-term sustainable yield-per-recruit. He noted particularly that use of 130-mm mesh would be important for conservation of the strong 1968 year-class of cod in Div. 3N and 3O. Attention was called to preliminary assessments on yellowtail and American plaice in Div. 3L and 3N. Such assessments have been hampered because of uncertainty in separating species in catch statistics of some countries prior to 1970. He noted that the sustainable yield of plaice is unlikely to increase in response to increased effort. Attention was called to recent herring tagging in the Subarea which showed that stocks fished off the southwest coast of Newfoundland migrate into the Gulf of St. Lawrence (Subarea 4). The Report was approved by all member countries present.

6. Conservation Measures. It was noted that several countries had reservations to the 130 mm minimum mesh size in Subarea 3 as recommended by the Panel in 1970. Canada stated that its government was seriously considering withdrawing its reservation but that such a decision would be influenced somewhat by possible action in the more southern subareas. Spain and Portugal declared that they would withdraw their reservation as soon as other countries withdrew theirs. Poland noted that its reservation applied only to the date of 1 July 1971 and that the regulation would come into force for Poland on 1 January 1972. The Panel noted what had been said regarding reservations and Mr Graham (UK) expressed the hope that those countries having reservations would seriously reconsider their positions with a view to withdrawing them if at all possible.

7. Conservation of Herring Stocks. There were no proposals for conservation measures and it was agreed to take note of discussion at a joint Meeting of Panels.

8. Future Research. The proposed groundfish surveys by Canada, France, Poland and USSR were commended and the need for coordination of the surveys stressed.

The Panel supported the recommendation from STACRES that the invitation of ICES to convene a meeting of a joint ICES/ICNAF Working Group on Cod Stocks in the North Atlantic be accepted.

9. Next Meeting. It was agreed that this would be held in conjunction with the 1972 Annual Meeting of the Commission.

10. Approval of Report. It was agreed that a draft would be circulated for approval without a further meeting.

11. Election of Chairman for 1972 and 1973. Mr A. A. Volkov (USSR) was unanimously re-elected Chairman for the ensuing two years.

12. There being no further business, the Panel Meeting was adjourned at 1540 hrs.

INTERNATIONAL COMMISSION FOR THE NORTHWEST ATLANTIC FISHERIES

RESTRICTED

Serial No. 2650
(B.f.1)

Proceedings No. 4
Appendix I

ANNUAL MEETING - JUNE 1971

Report of Meeting of Scientific Advisers to Panel 3

Wednesday, 26 May, 1430 hrs

1. The meeting was called to order by the Chairman, Dr H. A. Cole (UK). Advisers were present from the following member countries of the Panel: Canada, Denmark, France, Poland, Portugal, Spain, USSR, UK and USA. Observers were present from Japan.

2. The agenda as distributed for Panel 3 was followed, as applicable.

3. Dr A. W. May (Canada) was appointed Rapporteur.

4. The Chairman reviewed his summary report on Status of the Fisheries and Research in 1970 (Appendix II; also Res.Doc. 71/131). After discussion and some amendments the revised report was approved for presentation to the Panel.

5. The Chairman noted that in 1970 the Panel Advisers had concluded that an increase in mesh size to 130 mm in Subarea 3 was desirable, particularly for cod, but presumably also for flounders. The Advisers were informed that some countries had objected to the Commission's proposal for the introduction of a 130 mm mesh size in Subarea 3 but wish to reiterate last year's advice, particularly in view of the desirability of protecting young fish of the 1968 year-class in Div. 3N and 30.

The Assessments Subcommittee Chairman reported that the large 1964 year-class in Div. 3N and 30 had almost disappeared from the landings, even though the fish were only 6 years old in 1970. The decrease in cod catch in this area since 1967 probably reflects decreased abundance as well as decreased effort. There may be some improvement in catches in 1971-72, based on recruitment of the 1968 year-class, but in relation to maximizing yield-per-recruit fishing on such young age-groups is highly undesirable.

6. Assessments made for the first time for plaice and yellowtail flounder in Div. 3L and 3N were hampered because of uncertainty in separating species in catch statistics of some countries prior to 1970. It is evident, however, that in both Divisions, the sustainable yield of plaice is unlikely to increase in response to increased fishing. In both Div. 3L and 3N, catch-per-unit effort has declined in recent years.

7. Research on herring in Subarea 3 has disclosed that the fishery is dependent on relatively old fish and that there are no indications of substantial recruitment during the next few years. Mr V. M. Hodder (Canada) reported on results of tagging and other data which showed that the stocks fished off the southwest coast of Newfoundland migrate into the Gulf of St. Lawrence following this fishery, and do not intermingle with stocks on the Scotian Shelf. He also reported that catches in the 1970-71 fishing season were reduced about 50% from the previous winter season.

8. Apart from research plans previously reported, and which are generally along past lines, particular mention was made of planned groundfish surveys by various countries. The necessity, for assessments purposes, of extending and coordinating such surveys was emphasized. Efforts in this direction are underway and will be continued.

9. It was agreed that the next meeting of Scientific Advisers should take place at the time of the next Commission meeting, and preceding the meeting of Panel 3.

10. It was agreed that preparation of the report of the meeting of Advisers would be left to the Chairman and Rapporteur, who would circulate draft copies for approval.

11. Dr Cole (UK) was re-elected Chairman of Scientific Advisers to Panel 3.

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INTERNATIONAL COMMISSION FOR THE NORTHWEST ATLANTIC FISHERIES

Serial No. 2637
(D.b.79)

Proceedings No. 4
Appendix II
(also ICNAF Res.Doc. 71/131 Revised)

ANNUAL MEETING - JUNE 1971

Status of Fisheries and Research carried out in Subarea 3 in 1970

by

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Fisheries Laboratory
Lowestoft, England

1. Pertinent Documents

The following research documents contain information relating to Subarea 3: 71/6, 11, 22, 26, 27, 28, 29, 30, 31, 32, 36, 38, 39, 42, 43, 44, 45, 46, 48, 50, 51, 53, 54, 55, 62, 82, 83, 91, 93, 95, 96, 97, 104, 107, 108, 109, 111, 119, 120, 121, 123, 128.

Documents relating solely to salmon are not included.

The latest information regarding the state of the fish stocks and the most recent assessments are given in the Report of the Assessments Subcommittee (Redbook 1971, Pt. I) and in the report of its Mid-Year Meeting (Comm.Doc. 71/1).

2. Status of the Fisheries

Table 1 gives the total nominal catches from Subarea 3 of all species, and of cod, haddock, redfish and herring considered separately, for the year 1970 and the four preceding years. It should be noted, however, that the 1970 catch data include a small amount of fish caught in Subarea 2, and in 1969 and 1970 do not include catches by all non-member countries.

TABLE 1. Nominal catches from Subarea 3 (thousand metric tons round fresh)

Species	1966	1967	1968	1969	1970
All species	748	1,103	1,144	983*	965*
Cod	499	721	733	569*	538*
Haddock	10	11	7	5*	7*
Redfish	79	89	53	87*	76*
Herring	23	79	145	145*	135*

* Incomplete, see note above.

Table 2 gives the nominal catches of selected other species from Subarea 3 for the years 1968, 1969 and 1970.

TABLE 2. Nominal catches of other species taken from Subarea 3, 1968-70 (metric tons round fresh)

Species	1968	1969	1970
Halibut	1,388[a)]	597*	794*
Greenland halibut	24,003	17,690*	22,729*
American plaice	55,997	70,959*	88,317*
Witch	5,414	4,477*	21,726*
Yellowtail flounder	5,001	10,564*	26,730*
Flounders (not specified)	66,177	37,049*	481*
Roundnose grenadier	24,159	11,682*	22,396*

* Incomplete, see note above.
a) Includes some Greenland halibut caught by non-member countries.

Table 3 gives the nominal catches in Subarea 3 by species and countries for the years 1969 and 1970. As noted above, the latter are not quite complete. If it is assumed that non-member countries caught the same weight of fish in 1970 as in 1968, then the total catch of all species in Subarea 3 may have decreased by about 20,000 tons. Catches by most member countries differed very little from those taken in 1969 but that of France decreased by 20,000 tons.

A. Cod

Although the information is not yet complete, it seems that cod catches declined slightly in 1970. Catches by Portugal, Spain and USSR remained very stable but that of Canada decreased by approximately 10%. The French catch was less than half of that taken in 1969.

As in 1969, the heaviest catches were made in the northern part of the Subarea, particularly in Div. 3K and 3L but production from these two divisions fell from 329,000 tons in 1969 to 286,000 tons in 1970.

Landings of cod from the Canadian inshore fishery declined but intermediate-sized vessels are changing over to gill nets and a variety of other species is also being caught (Res.Doc. 71/43).

Polish fishing was mainly in Div. 3K: the catch-per-hour by Polish trawlers fishing cod in the first half of 1970 fell to 644 kg (1968 - 1,163; 1969 - 1,013 kg) (Res.Doc. 71/104). The 1963, 1964 and 1965 year-classes made up 77% of the catch (Res.Doc. 71/50). As a result of intensive fishing, the 1965 and 1966 year-classes were considerably reduced before their recruitment was completed (Res.Doc. 71/106).

Portuguese trawlers and dory vessels fished mainly in Div. 3L. The 1963, 1964 and 1965 year-classes were most numerous in the trawl catches, as in 1969 (Res. Doc. 71/51).

The bulk of the Spanish catch was taken by pair trawlers with Div. 3L and 30 providing 58% of the total: the 1965 and 1966 year-classes were dominant (Res. Doc. 71/48).

Soviet catches from the northern (Div. 3K and 3L) and southern (Div. 3N and 30) stocks of cod on the Grand Banks were similar at approximately 29,000 tons.

Recorded discard rates of cod in Subarea 3 rarely exceeded 1% (Res.Doc. 71/27).

The environmental factors responsible for the varying success of cod year-classes in the two stocks on the Grand Bank are discussed in Res.Doc. 71/111. Surveys of the abundance of young cod made by the USSR since 1958 show that recruitment to the Labrador-North Newfoundland stock is rather stable from year to year whereas in the Southern Grand Bank stock a strong year-class may be 40 to 50 times more abundant than a poor one. In Div. 3N and 30, the 1968 year-class was very prominent in the USSR surveys and is expected to improve the Southern Grand Bank and St. Pierre Bank cod fisheries in 1972 (Res.Doc. 71/53).

B. Haddock

Haddock landings increased slightly coming mainly from Div. 3Ps (St. Pierre Bank). The 1966 year-class is still important but the incoming year-classes of 1967 and 1968 seem to be poor (Res.Doc. 71/43). Soviet scientists continue to find some small signs of the beginning of restoration of the Grand Bank haddock stock (Res.Doc. 71/53).

C. Redfish

Total redfish landings declined by approximately 11,000 tons. The decline was most evident in Div. 3K and 3N; landings increased from Div. 3Ps. Canadian echo sounder surveys confirm the existence of large numbers of pelagic redfish *(Sebastes mentella)* over deep water from the northern part of the Grand Bank to Greenland.

Table 3. Nominal catches from Subarea 3 in 1969 and 1970 by species and country (thousand metric tons round fresh). Not including one non-member country.

Species	Year	Total	Canada	Denmark	France	Germany	Norway	Poland	Portugal	Spain	USSR	UK	USA	Non members
Cod	1969	569	145	19	36	0	26[f]	14	99	171	57	3	0	0
	1970	538	129	18	14	12	37[f]	13	91	165	60	0	0	na
Haddock	1969	5	3	0	1	-	-	-	-	2	-	0	-	-
	1970	7	3	0	1	-	-	-	-	3	0	-	-	na
Redfish	1969	87	9	0	0	-	0	7	-	-	70	-	-	0
	1970	76	11	0	1	0	0	4	-	-	58	0	-	na
Greenland halibut	1969	18	12	-	-	-	0	3	-	-	3	-	-	-
	1970	23	11	0	-	.	-	7	-	-	5	-	-	na
American plaice	1969	71	70	-	0	-	-	-	-	-	-	-	-	0
	1970	88	70	-	0	-	-	0	-	-	17	-	-	na
Witch	1969	4	4	-	0	-	-	-	-	-	-	0	-	-
	1970	22	7	-	0	-	-	3	-	-	12	-	-	na
Yellowtail flounder	1969	11	11	-	0	-	-	-	-	-	-	0	-	-
	1970	27	20	-	0	-	-	-	-	-	3	-	-	na
Herring	1969	145	145	-	-	-	-	-	-	-	-	-	-	-
	1970	135	135	-	-	-	-	0	-	-	-	-	-	na
Total All Species	1969	983	409	19	38	0	27[f]	25	99	173	189	3	0	0
	1970	965	404	18	18	12	37[f]	26	91	169	186	0	0	na

na Not available
f Includes Subarea 2

D. Herring

All herring were taken by Canada, mainly from Div. 3Pn and 3Ps. The catch was 10,000 tons less than in 1969. Numerous research documents dealing with herring biology and assessment are summarized in the appropriate section of the Assessments Subcommittee Report.

E. Flounders

Total landings of flounders of all kinds increased by approximately 15,000 tons. For the first time, the USSR reported catches separately as American plaice, witch or yellowtail flounders, and because of this, landings of each of these three species showed apparent large increases. However, if the proportions of the USSR catch of "flounders not specified" in 1968 and 1969 were the same as reported in 1970, total catches of American plaice from Subarea 3 have remained stable at around 90,000 tons, yellowtail have doubled between 1968 and 1970, and witch have fluctuated considerably (Table 4).

TABLE 4. Estimated total catches of flounders from Subarea 3 - all countries.

Year	American plaice	Yellowtail	Witch
1968	89,000	12,000	29,000
1969	90,000	14,500	17,500
1970	88,317	26,730	21,726

Only negligible landings of flounders are now reported as "not specified".

The main fishing areas for American plaice are Div. 3L and 3N and these seem to be separate populations. It is reported that, for both stocks, year-classes of comparatively equal strength enter the fishery each year (Res.Doc. 71/111).

The steady increase in abundance of yellowtail on the Grand Bank since 1962 may be related to the drastic reduction which has occurred in the haddock stock (Res.Doc. 71/118). There is no information on the strength of incoming year-classes.

Very little information is reported on witch (grey sole). Substantial landings are made from Div. 3K (Canada, Poland and USSR), 3L (Canada), 3N (USSR) and 3Ps (Canada), with 3K the most important. Sampling information from Div. 3Pn and 3Ps is provided by France (Res.Doc. 71/46).

F. Other Species

Landings of Greenland halibut increased mainly as a result of higher catches by Polish and Soviet vessels. Three quarters of the total catch was taken from Div. 3K.

Landings of capelin by Canada were 2,999 tons (1969 - 2,027 tons). Canadian landings of swordfish doubled (1970 - 1,979 tons; 1969 - 969 tons). Squid remained very scarce with only 75 tons recorded from Subarea 3.

Catches of roundnose grenadier by the USSR increased to the 1968 level with 22,396 tons landed; almost all was taken from Div. 3K. A special study of this fishery concludes that intensification should be approached with caution (Res. Doc. 71/93).

Landings of argentine were made by the USSR and Japan.

Canadian salmon catches increased to 1,209 tons (1969 - 902 tons).

Groundfish landings reported in 1970 as "not specified" fell to negligible proportions but "other fish spp. nk" still total 5,896 tons in Subarea 3, the bulk being landed by the USSR.

3. Research Work

Research studies made in Subarea 3 were reported by Canada, France, Fed. Rep. Germany, Japan, Poland, Portugal, Spain, USSR, UK and USA.

A. Hydrography

Hydrographic studies were made by Canada, France, USSR and USA. The report of the Environmental Subcommittee contains the following summary of conditions in Subarea 3 in 1970:

"Off Labrador and eastern Newfoundland (Subareas 2 and 3) in July and August core temperatures in the colder shoreward part of the Labrador Current were generally below average, but in the deeper water of the continental slope, in the outer West Greenland Current contribution to the Labrador Current, both temperatures and salinities were often similar to or higher than the highest previously recorded."

A USSR study reports intensification of the cold Labrador Current which caused a cooling of the eastern slope of the Grand Bank, and there was a similar intensification of the Gulf Stream which warmed the western part of the Bank (Res. Doc. 71/91). Seasonal and year-to-year variability of water temperature in the areas of Labrador and Newfoundland for the years 1936, 1938-1941 and 1948-1970 was analyzed in the USSR Res.Doc. 71/96). There was an intensification of hydrographic work in 1970 by the St. John's (Newfoundland) Laboratory (Res.Doc. 71/22). New hydrographic studies in the Laurentian Channel and adjacent areas were initiated by France (Res. Doc. 71/46 and 71/82).

B. Plankton

Plankton studies were reported by France and the UK. During a French research cruise in the spring of 1970 vertical plankton hauls were made at 133 stations along the Laurentian Channel and the adjacent banks. Figures are given for plankton volume and abundance of fish eggs and larvae. This is the first stage of a continuing programme (Res.Doc. 71/82). The Plankton Recorder Survey was continued by the UK and a total of 16,915 miles was sampled in Subarea 3. The spring outbreak of plankton was below average in the oceanic region of Subarea 3 but diatoms were abundant over the Grand Bank in April and May. Numbers of copepods were above the long-term mean (1962-69) during the first half of the year in both oceanic and coastal parts of Subarea 3 and below average from July to November (Res.Doc. 71/54).

C. Special Biological Studies

Special biological studies of the roundnose grenadier *(Macrurus rupestris)* were reported by the USSR (Res. Doc. 71/89 and 71/93). These covered feeding and migration of the Northwest Atlantic and studies of age and growth. It is concluded that the fish has a long life and many age groups in the population. The spawning area of this fish has not been located but there seems to be some possibility of a connection between the stocks in the Northwest Atlantic and those at Iceland.

A Soviet survey of the distribution of haddock spawning grounds in the ICNAF area includes information relating to Subarea 3 (Res.Doc. 71/42). The relation between wind strength and direction and drift and survival of haddock eggs and larvae is considered.

A detailed study of redfish taken from the north side of the Laurentian Channel (Div. 3Ps and 3Pn) was reported by France (Res.Doc. 71/83). Other biological information on redfish in Subarea 3 is included in the Soviet Res.Doc. 71/53.

Res.Doc. 71/6 reports on the incidence of the larval nematode *Anisakis* sp. in herring from Canadian Atlantic waters. It is concluded that the level of infestation is very low compared with, say, the North Sea, and does not present a problem in the utilization of herring for human consumption if reasonable standards of processing are observed.

France reports the results of surveys made during the period 1966-70 for shrimp *(Pandalus borealis)* in the channels among the banks of Subareas 1-5. In Subarea 3 ten hauls made in the Burgeo trench in May 1970 yielded an average of 42 kg per hour's fishing; there were substantial by-catches of redfish and witch.

D. Tagging

The USSR marked yellowtail flounder, American plaice and cod (with a few haddock, witch, Greenland halibut and dogfish) in Subarea 3, mainly in Div. 3L (Res. Doc. 71/53). Greenland halibut tagged by Canada off White Bay, Newfoundland in the

winter of 1969/70 gave 20 recoveries during the first year, of which 5 were taken in the spring northeast of Funk Island. This suggests that the Greenland halibut fished offshore in Div. 3K and 3L and those caught in the deep coastal bays of Newfoundland may belong to the same stock which migrates to the continental slope for spawning (Res.Doc. 71/119).

Canada marked herring with internal tags to establish the relationship between the stocks fished from spring to autumn in the southern Gulf of St. Lawrence and those exploited in winter in Div. 3P (Res.Doc. 71/108).

E. Groundfish Surveys

The Report of the Working Group on Coordinated Groundfish Surveys (Res. Doc. 71/32) indicates that Canada (Nfld), USSR (PINRO), Poland, and France (St. Pierre) may undertake surveys in Subarea 3 during 1972. For further details reference should be made to the appropriate section of the Redbook 1971, Part I. Canadian methods of groundfish survey are described in Res.Doc. 71/36 and a suggested plan for stratified sampling has been presented as a separate annex. The accuracy of abundance indices for cod assessed by a comparison of research vessel surveys and information from commercial catches is presented in Res.Doc. 71/38.

F. Other Research

Canada provided technical details and towing characteristics of 6 main types of otter trawls used for groundfish in the Northwest Atlantic (Res.Doc. 71/39).

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INTERNATIONAL COMMISSION FOR THE NORTHWEST ATLANTIC FISHERIES

Serial No. 2651
(B.e.71)

Proceedings No. 5

ANNUAL MEETING - JUNE 1971

Report of Meeting of Panel 4

Tuesday, 1 June, 1600 hrs

1. The meeting was called to order by the Chairman, Mr R. Lagarde (France).

2. Rapporteur. Dr A.W. May (Canada) was appointed Rapporteur.

3. Agenda. The agenda as distributed in advance of the meeting was adopted.

4. Review of Panel Membership. The following member countries of the Panel were represented: Canada, France, Fed. Rep. Germany, Poland, Portugal, Spain, USSR and USA. An application from Japan for membership in the Panel was unanimously approved.

5. Report of Scientific Advisers. The Chairman of Scientific Advisers to Panel 4, Mr J.A. Posgay (USA), presented his summary report on Status of the Fisheries and Research carried out in 1970 (Appendix II; also Res.Doc. 71/134 Revised), and also presented the Report of the Meeting of Scientific Advisers (Appendix I). These were adopted by the Panel.

6. Review of Conservation Measures and Requirements. The Panel discussed the conclusion of the Assessments Subcommittee that a reduction in catch below the 1970 level of 8,600 tons would be required to prevent a decline in abundance of the offshore cod stock in Div. 4X. Canada reported that the complexity of fisheries in this area made it difficult to define inshore and offshore components, and that further consideration of this problem was necessary before proposals for conservation of the offshore cod stock could be made.

7. Conservation Measures for Haddock in Div. 4X and Div. 4W. Proposals for conservation of haddock stocks in Div. 4X and Div. 4W were referred to a Joint Meeting of Panels 4 and 5 (see Proc. 13).

8. Conservation Measures for Herring Stocks. Proposals for herring conservation were referred to a Joint Meeting of Panels 1-5 (see Proc. 11).

9. Future Research. There were no specific proposals for future research beyond the items noted in the Report of Scientific Advisers to Panel 4.

10. Date and Place of Next Meeting. It was agreed that the next Panel meeting should take place at the time and place of the 1972 Annual Meeting of the Commission.

11. Approval of Panel Report. It was agreed that the Panel Report would be circulated in draft form for approval by Panel Members.

12. Election of Chairman. Capt J. Cardoso (Portugal) was elected Chairman of Panel 4 for the years 1971-1972 and 1972-1973.

13. Adjournment. There being no further business, the meeting adjourned at 1640 hrs.

RESTRICTED

INTERNATIONAL COMMISSION FOR THE NORTHWEST ATLANTIC FISHERIES

Serial No. 2651
(B.f.2)

Proceedings No. 5
Appendix I

ANNUAL MEETING - JUNE 1971

Report of Meeting of Scientific Advisers to Panel 4

Wednesday, 26 May, 1600 hrs

1. The meeting was opened by the Chairman, Mr J.A. Posgay (USA).

2. Dr G.J. Ridgway (USA) was appointed Rapporteur.

3. The Chairman proposed to follow the agenda of the Panel 4 meeting insofar as it was appropriate and this was agreed.

4. Participants from the following member nations were present: Canada, France, Fed.Rep. Germany, Poland, Portugal, Spain, USSR, UK and USA.

5. The Chairman presented his report (Appendix II; also Res.Doc. 71/134 Revised), which was adopted after some discussion and revision.

6. Review of Conservation Measures and Requirements. Conservation measures and requirements for stocks and species not specifically mentioned in the agenda were discussed. The offshore cod stock in Div. 4X, according to recent assessments, has undergone fishing mortality twice that giving maximum sustainable yield. Catches from this stock are declining and research surveys in the area confirm the trends obtained from analysis of the fishery. Although an accurate assessment of allowable yield is not available for 1971, it should be less than the catch in 1970. It was agreed that a significant reduction in the catch is necessary to maintain the stock at its present level of abundance. Thus the Panel Advisers call the attention of the Panel members to the need for conservation measures for the offshore cod fishery in Div. 4X.

The relationship of cod and haddock conservation measures in this area were also discussed. The haddock closure in Div. 4X could reduce the cod catch from the offshore stock unless effort normally devoted to haddock were diverted to cod occurring outside the closed area.

7. Review of Conservation Measures and Procedures for Haddock in Div. 4X. Comm.Doc. 71/9 concerning this subject was noted and the material from the deliberations of the Assessments Subcommittee was reviewed. Abundance of haddock stocks in Div. 4X, both the offshore banks and in the Bay of Fundy, declined substantially in 1970. Actual catches of haddock in Div. 4X were about 30,000 tons in 1969 and 18,125 tons in 1970. Recent research vessel surveys indicate that no significant improvement in recruitment to the fishery is likely prior to 1975 at the earliest, and stock abundance will continue to decline unless fishing mortality is reduced considerably below current levels. Thus, an annual quota of 18,000 tons is ineffectual in maintaining stock abundance and the annual catch quota should be reduced to considerably less than 12,000 tons.

8. Consideration of Need for Conservation Measures for Haddock in Div. 4W. Comm.Doc. 71/10 was noted and the Assessment Subcommittee's deliberations were reviewed by its Chairman, Mr R.C. Hennemuth (USA). Assessments are based on the stock in Div. 4V and Div. 4W. A combination of fishing for young fish in 1965-1966 and poor recruitment since then has resulted in a drastic decline in stock abundance in recent years. Commercial catch-per-unit-effort data indicate that a further sharp decline in abundance occurred in 1970 to the lowest value on record. Landings also declined in 1970 to about 9,500 metric tons from 11,146 in 1969. Latest evidence indicates that a quota of 6,000 tons in Div. 4W (with an expected incidental catch of 2,000 tons in Div. 4V) would be ineffective in maintaining the stock at its present low level of abundance.

The question of the mixed fishery in Div. 4V was discussed. Dr Kohler (Canada) pointed out there was a need for information on mixed catches from nations other than Canada. Res.Doc. 71/27 was reviewed; from this document no evidence for

a major take or discard of haddock in the cod fishery was apparent, but the lack of adequate reporting was noted.

9. Consideration of Need for Conservation of Herring Stocks. Comm.Doc. 71/17 was reviewed insofar as it concerned Subarea 4 herring stocks and material from the Assessments Subcommittee report was reviewed by Mr Iles (Canada). Dr Bogdanov (USSR) pointed out that Comm.Doc. 71/17 contained many items not all related to Panel 4. The major questions were:

a) Does the fishery in the area need regulation? and
b) Is there a need to decrease the catch?

There was general agreement that although an exact amount of harvestable surplus cannot be estimated, the best judgment of the Scientific Advisers is that reduction in the catch is needed. This is indicated by the recent declines in catch in Div. 4X and Div. 4V.

10. Future Research Required. The Scientific Advisers called attention to the fact that a coordinated survey of larval herring in the area is planned for the fall of 1971. Canada, France, Fed.Rep. Germany, USSR, and USA plan to participate. The Advisers agreed that there is a need for additional tagging experiments on herring, particularly on juveniles in Div. 4X. Preliminary studies on tagging techniques and tag recovery methods are planned by Canada and USA. It was agreed that there is a need for tests of acoustical surveys for assessing the abundance of herring stocks. Continued cooperative groundfish surveys in the area are planned by Canada, USSR and USA, and by France (St P&M).

11. Date and Place of Next Meeting of Scientific Advisers. It was agreed that the Scientific Advisers should meet prior to the Panel meeting at the next Annual Meeting of the Commission.

12. Approval of Report. It was agreed that a draft report would be prepared by the Chairman and Rapporteur and circulated for approval before presentation to the Panel.

13. Election of Chairman for 1971-1972. Mr J.A. Posgay (USA) was re-elected Chairman of Scientific Advisers to Panel 4.

14. The meeting adjourned at 1800 hrs.

INTERNATIONAL COMMISSION FOR THE NORTHWEST ATLANTIC FISHERIES

RESTRICTED

Serial No. 2640
(D.b.70)

Proceedings No. 5
Appendix II
(also ICNAF Res.Doc. 71/134 Revised)

ANNUAL MEETING - JUNE 1971

Status of the Fisheries and Research carried out in Subarea 4 in 1970

by

J.A. Posgay
National Marine Fisheries Service
Woods Hole, Massachusetts

1. Status of the Fisheries

Landings from Subarea 4 reached an all-time high in 1970 (Table 1). In addition to the absolute increase in the landings, the relative importance of the Subarea 4 landings also increased. In the period 1961-1968, Subarea 4 provided about 24% of the catch from the Convention Area; this increased to 30% in 1969 and 37% in 1970.

TABLE 1. Landings from Subarea 4 (thousand metric tons).

Species	Average 1961-64	Average 1965-68	1969	1970
Cod	219	220	206	256
Haddock	50	61	42	28
Redfish	49	92	111	119
Silver hake	53	16	46	169
Herring	112	262	422	416
Other	159	165	175	164
Total	642	816	1,002	1,152

Since the earlier period, cod landings have increased slightly, haddock landings are half what they were, redfish landings have doubled, silver hake landings have tripled, and herring landings are four times what they were.

2. Research during 1970

In addition to the national Research Reports, there are 26 Research Documents and 4 Commisioner's Documents reporting matters of interest to Panel 4.

	Comm.Doc.No.	Res.Doc.No.
Cod		12
Haddock	9, 10	13, 42
Mixed groundfish	1	15, 16, 37
Redfish		83
Herring	17	6, 40, 95, 97, 98, 99, 100, 101, 107, 108, 109, 113, 120, 122
Miscellaneous		26, 32, 35, 41, 62, 82

In the following sections, pertinent conclusions in the research documents are presented.

A. Groundfish

Research vessel surveys have been expanded by Canada, USA, and USSR so that they now cover Div. 4T, 4V, 4W, and 4X. Comparison of research vessel survey data

with commercial catch-per-unit of effort for cod and haddock in Div. 4T, 4W and 4X show generally good agreement. Further, more refined analysis should improve the relationship.

B. Cod

The Div. 4T stock showed adequate recruitment to the 1971 fishery. Abundance in Div. 4X showed a 30% decrease in abundance from 1965 to 1969 with F considerably above that giving maximum yield per recruit. Catch-per-unit of effort of Canadian trawlers in 1970 was 23% less than in 1969.

C. Haddock

The Div. 4X stock is declining and will continue to decline unless the present annual quota of 18,000 tons for 1970-1972 is reduced. The stock in Div. 4VW is also declining and if fishing mortality remains at the present level, or increases, this stock will not recover and may well decline even further.

D. Herring

Stocks in the Nova Scotia region of Div. 4X are being maintained by the 1966 year-class. The fish which are taken as "sardines" off New Brunswick may be a separate stock from those off Nova Scotia. Otolith comparisons seem to show that the herring found on Banquereau and Emerald Banks in March-April are of different stocks.

Tagging in the Gulf of St. Lawrence (Div. 4T) and off the south coast of Newfoundland has further defined the movement of herring within the Gulf and out to the south coast of Newfoundland (Div. 3P).

A study of the occurrence of the parasitic larval nematode *Anisakis* sp., in herring from the east coast of Maine, western Gulf of Maine, Georges Bank, and Nova Scotia gives further support to the separation of these stocks. Other studies of this parasite demonstrate its value as a biological tool in helping to separate the stocks of the northern part of the Subarea and confirm the identity of those fish caught off southern Newfoundland in winter and in Div. 4T the rest of the year.

Analysis of the year-class distribution of fish from Georges Bank, Jeffreys Ledge, coastal Gulf of Maine, and Nova Scotia catches showed each area to be different from all others.

E. Silver Hake

The large increase in silver hake landings was the result of increased effort by the USSR and the presence of two good year-classes in the stock. The 1966 year-class made up 42.4% and the 1967 year-class, 35.9% of USSR catches.

F. Redfish

The increase was caused mainly by a diversion of Canadian effort to the deeper waters of Div. 4Vs, 4W and 4X because of poor availability of haddock. Landings would have been much higher in 1970, except for strikes by fishermen and handlers during part of the year.

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INTERNATIONAL COMMISSION FOR THE NORTHWEST ATLANTIC FISHERIES

Serial No. 2652
(E.e.71)

Proceedings No. 6

ANNUAL MEETING - JUNE 1971

Report of Meeting of Panel 5

Monday, 31 May, 0930 hrs
Thursday, 3 June, 1430 hrs

1. The meeting was opened by the Chairman, Professor F. Chrzan (Poland).

Representatives from all member countries of the Panel, except Romania, were present.

2. Rapporteur. Mr H. R. Beasley (USA) was appointed Rapporteur.

3. Agenda. The agenda, as circulated, was adopted.

4. Panel Memberships. It was agreed to recommend to the Commission that the applications of the Fed. Rep. Germany and Japan for membership in Panel 5 be accepted.

5. Report by Chairman of Scientific Advisers. Dr G. F. M. Smith (Canada), Chairman of the Scientific Advisers to the Panel, presented a summary of the Status of Fisheries and Research carried out in the Subarea during 1970 (Appendix IV; also Res.Doc. 71/129 Revised) and the Report of the Meeting of Scientific Advisers (Appendix I). He concluded by noting the seriousness of conservation requirements for major resources in the Subarea. Attention was drawn not only to stocks which are the subject of existing or proposed management schemes to restrict fishing, but also to scallops and cod.

6. Review of Conservation Measures and Requirements. The USA emphasized its concern about deteriorating resource conditions in the Subarea, and noted in particular the implications of Appendix IV, "Status of the Fisheries and Research carried out in Subarea 5 in 1970", which shows declining yields from major groundfish and herring stocks off New England.

Since scallops and cod were not specifically on the Panel's Agenda, clarification about the needs of these resources was requested. Dr McCracken (Canada) on behalf of the Scientific Advisers to the Panel cited the moderate abundance of a recent year-class of Georges Bank scallops following a period of poor recruitment. The possibility was noted of closing certain areas to the dredges used by scallop vessels to protect concentrations of these small scallops from premature and excessive exploitation. It was also pointed out that such a specialized closure would not interfere with fisheries employing other types of gear. After some discussion, it was noted that Canada and the USA - the two countries harvesting scallops in Subarea 5 - would examine further what regulatory proposals for scallops might be developed for consideration at the 1972 Annual Meeting of the Commission.

The Chairman of the Assessments Subcommittee at the request of the Panel reviewed the status of cod. He noted that available information, while incomplete, indicated that the resource in the Subarea was fully exploited at yield levels between 30,000 to 40,000 metric tons, and recent catches at or above those levels provided cause for concern. Canada emphasized the dangers of allowing resources to deteriorate while awaiting final documentation of the precise reasons for their decline, and noted that, while conservation measures for cod were not on the Panel's agenda, it was willing to accept an interim annual quota of 35,000 metric tons for cod in Subarea 5. The USSR said it could accept such a measure. Other delegations expressed support in principle for the Canadian view, but asked that a decision on the matter be postponed until the effects of such a quota could be examined further, since it would have implications for other fisheries.

7. Review of Conservation Measures and Procedures for Haddock. The USA said that all scientific reports show that the existing 12,000-ton haddock quota in Subarea 5 is inadequate to satisfy conservation requirements. Much stricter measures are needed if there is to be any possibility of arresting the decline in this severely depleted resource. Therefore, the USA proposed a ban on fishing for haddock in the Subarea; vessels would be allowed incidental haddock catches of 5,000 pounds or 10 percent by weight of all other fish on board caught in the Subarea. Canada expressed sympathy for the proposal, while noting concern about the incidental catches during spawning periods that might be taken under such a proposal. The close relation of haddock regulatory regimes in Subareas 4 and 5 was also noted. In these circumstances, it was agreed that haddock proposals for both Subareas should be considered in a joint meeting of Panels 4 and 5 (see Proc. 13).

8. Review of Conservation Measures and Procedures for Silver and Red Hakes. The Panel approved a recommendation of the Scientific Advisers that the 3-year regulatory program for hakes in force since 1 January 1970 continue unchanged, pending further stock assessments before the regulations expire.

9. The Panel recessed at 1215 hrs.

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10. The Panel reconvened at 1445 hrs, 31 May.

11. Consideration of the Need for Conservation of Herring Stocks. It was noted that this item had been referred to the Joint Meeting of Panels (see Proc. 11) for consideration.

12. Possible Conservation Measures for Yellowtail Flounder. The USA submitted proposals:

(1) to increase the mesh size required in the Subarea 5 yellowtail flounder fishery from 114 mm to 147 mm (manila), and

(2) to establish modified Subarea 5 quota regulations for yellowtail flounder.

The proposed quota regulation would continue an annual catch limit in waters east of 69°W at the existing level of 16,000 metric tons; the annual catch limit west of 69°W would be reduced from 13,000 to 10,000 tons. The quota proposal also embodied flexible procedures suggested by the Assessment Subcommittee for closing the open fishing seasons. In introducing these proposals, the USA noted that its general regulatory intentions had been previously summarized in Comm.Doc. 71/16. The specific proposals reflect the latest scientific assessments calling for a reduction in the fishing rate on the resource.

Discussion revealed general support for the quota regulatory proposal, but some differences of opinion regarding the mesh-size proposal. The USSR expressed the view that in order to conserve fish stocks and to facilitate enforcement of regulations it would be strongly advisable to establish uniform mesh-size requirements of 130 mm throughout the Convention Area for all species subject to trawl regulations. This could be accomplished by extending the mesh-size requirements in Subareas 1, 2 and 3 to Subareas 4 and 5. The Soviet Delegation, thus, believed it advisable to increase mesh-size requirements for yellowtail flounder in Subarea 5 from 114 mm to 130 mm (manila). The Soviet Delegation also noted that care should be taken when changing mesh-size requirements not to amend established rules concerning the measurement of meshes, selectivity of different materials, and designation of mesh-measuring gauges, taking into account that at the 1967 Annual Meeting of the Commission the ICNAF mesh-measuring gauge as specified in the ICNAF trawl regulations was authorized as the only mesh-measuring gauge for use in the Convention Area. The Fed. Rep. Germany's Delegation was in general accord with the Soviet views. The USA commented that while uniform mesh-size requirements would facilitate control measures, there were scientific reasons for varying requirements. A single mesh size could not be set that would achieve maximum yield-per-recruit of all fish stocks, in view of the great variety of environmental conditions and resources in the Convention Area. The USA believed the enforcement advantages of a single mesh size were outweighed by the conservation advantages obtained by adapting mesh sizes to the needs of specific stocks. As regards yellowtail flounder, the USA drew attention to the Assessment Subcommittee's conclusion that yield-per-recruit could be increased significantly

by raising mesh sizes in the fishery to 147 mm (manila). Canada said that while it understood why specialized mesh sizes might be sought for certain resources, it also believed there were enforcement advantages in a common mesh size. In view of the broader implications of the mesh-size question, it was agreed that the matter should be referred to the Joint Meeting of Panels for consideration, before Panel 5 made a decision on yellowtail flounder regulations.

13. The Panel recessed at 1500 hrs.

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14. Panel 5 reconvened at 1430 hrs, 3 June.

15. The USA reported its willingness to modify its trawl regulatory proposal so that mesh-size requirements in the yellowtail flounder fishery would be increased to only 130 mm (manila) provided it was agreed by the Panel that an increase to 147 mm would be discussed on its scientific merits at the next meeting of the Commission. With this understanding, the Panel

recommended

that the Commission transmit to the Depositary Government for joint action by the Contracting Governments the catch quota and mesh-size regulatory proposals of the USA for yellowtail flounder attached at Appendices II and III.

16. Review of the 10 Percent Annual Exemption. It was noted that the USA had reported on their operation of the 10 percent exemption in Comm.Doc. 71/22.

17. Future Research Required. The research plans for the Subarea are outlined in the Report of the Scientific Advisers (Appendix I) and in the research programs submitted by member countries.

18. Next Meeting. It was agreed that the next regular meeting of the Panel and its Scientific Advisers would be held at the time and place of the next Annual Meeting of the Commission.

19. Other Business. There was no other business.

20. Approval of Panel Report. It was agreed to circulate the Panel Report among the Panel members for approval.

21. Election of Chairman. Mr F. Suzuki (Japan) was unanimously elected Chairman of the Panel for 1971-72 and 1972-73.

22. Adjournment. The meeting adjourned at 1515 hrs.

INTERNATIONAL COMMISSION FOR THE NORTHWEST ATLANTIC FISHERIES

RESTRICTED

Serial No. 2652
(B.f.3)

Proceedings No. 6
Appendix I

ANNUAL MEETING - JUNE 1971

Report of Meeting of Scientific Advisers to Panel 5

Tuesday, 25 May, 1600 hrs

1. The Chairman, Dr G. F. M. Smith (Canada), opened the meeting with representatives from member countries, Canada, Poland, USSR and USA present. Romania was not represented. Observers were present from Fed. Rep. Germany, UK and Japan.

2. Dr M. D. Grosslein (USA) was appointed Rapporteur.

3. The agenda for Panel 5 was adopted with minor revisions.

4. The Chairman presented his report on the Status of the Fisheries and Research carried out in Subarea 5 in 1970 (Appendix IV; also Res.Doc. 71/129). The list of documents relevant to Subarea 5 was checked for completeness and the Chairman noted that several additional numbers would be added to his report. Dr Schumacher (Fed. Rep. Germany) noted that Part 3 of the German Research report (including material on German herring research in Subarea 5) had not yet arrived. Mr Hennemuth (USA) noted that Subarea 5 herring landings by non-member countries were not included in the 1969 or 1970 statistics, and that the correct ratio of the actual 1970 to 1969 herring landings probably would be somewhat greater than the 84% shown in the Chairman's report.

5. Consideration of Conservation Measures for Scallops in Subarea 5. Dr McCracken (Canada) called the attention of Advisers to Res.Doc. 71/84 dealing with recent studies on Georges Bank scallops. He reviewed the part of the Assessment Subcommittee's report on scallops, and noted that a moderately abundant year-class of 3-ring scallops is now being harvested within the size range of 50-100 mm. Mr Posgay (USA) noted that in past years the 50% cull size was about 95 mm, and also previous studies indicated that exploitation of scallops as young as those taken in 1970 was wasteful of potential yield. Mr Hennemuth (USA) suggested that consideration should be given to the possible effects of a closed area. Mr Posgay (USA) noted that in comparison with earlier years, a closed area for scallops would be more practical now since only pre-recruits are present, the abundance of large scallops being very low. The Advisers agreed that this matter should be brought to the attention of Panel 5.

6. Possible Conservation Measures for Subarea 5 Cod. Mr Hennemuth (USA) called attention to Res.Doc. 71/125 and the Assessment Subcommitte's report on the current status of the Subarea 5 cod stock. He noted that landings had increased substantially since 1964, in response to increased effort, whereas research vessel surveys have provided no evidence of increased abundance or recruitment. Preliminary assessment indicates that the fishery is presently fully exploiting the stock and he suggested it would be desirable to hold the catch down to a level of about 30-40,000 tons until a more complete assessment can be made. Prof Chrzan (Poland) noted that Subarea 5 was the southern limit of the cod range and that abundance depends mostly on environmental factors. Mr Hennemuth (USA) replied that the history of the Subarea 5 cod fishery showed relatively stable landings over a long period in spite of observed fluctuations in temperatures. Mr Hennemuth also suggested that in any case the effects of temperature changes would not act immediately but rather over a period of years, and any major changes in recruitment could be accounted for in harvest regulations since the cod stock was now being monitored by annual research vessel surveys. The Scientific Advisers then agreed to advise that the Panel consider limitation of the Subarea 5 cod catch in order to prevent further increase in fishing mortality.

7. Review of Conservation Measures for Subarea 5 Haddock. Mr Hennemuth (USA) outlined the current status of the Subarea 5 haddock stock and noted that although the closure system had worked well in 1970, the stock abundance is presently very

low and there is virtually no recruitment expected from the 1970 spawning. Dr Smith (Canada) called the Advisers' attention to Comm.Doc. 71/15 on proposed new conservation measures for haddock. Mr Hennemuth (USA) reviewed the main points in the proposal which were:

(1) a substantial reduction in Subarea 5 haddock quota or a ban on all haddock fishing (other than incidental catches);

(2) if fishing allowed, then an extension of closed season to include month of May;

(3) modification of boundaries of the westernmost closed area in Subarea 5 to reduce interference with redfish and shrimp fisheries in that area, and exemption from closure regulations of Cape Cod line trawl fisheries;

(4) adoption of standardized exemptions (for haddock and yellowtail) or use poundage exemption only in place of current exemption regulation.

Dr McCracken (Canada) inquired whether the Assessment Subcommittee had suggested a quota other than zero. Mr Hennemuth (USA) said that the best strategy is to take no haddock at all, thereby allowing whatever recruitment occurs to contribute to re-building the stock. Dr Templeman (Canada) asked whether a complete ban was feasible in view of existing fisheries for other species. Mr Hennemuth noted that changing to a poundage exemption would help with this problem. The Scientific Advisers then agreed that proposals for further conservation were required.

8. Review of Conservation Measures for Red and Silver Hake in Subarea 5. Mr Hennemuth (USA) reviewed the current status of these stocks in relation to the current regulations. US biologists have concluded that the closed areas have been effective in reducing fishing mortality on hake during their pre-spawning concentrations; catches have declined and stock abundance appears to be increasing somewhat. A more complete assessment is expected by the time existing regulation expires next year, and until then it is suggested the regulation remain unchanged. Dr Bogdanov (USSR) concurred with Mr Hennemuth's views and supported his proposal. The Advisers then agreed to inform the Panel of this assessment.

9. Conservation Measures for Yellowtail Flounder in Subarea 5. Dr Brown (USA) called attention to Res.Doc. 71/14, 71/27 and 71/115 which dealt with yellowtail flounder, and he reviewed briefly the results of the Assessment Subcommittee's evaluation noting that all information points to a need for a reduction in fishing rate. Specific proposed changes in the regulations are presented in Comm.Doc. 71/16 and involve:

(1) significant reduction below 13,000-ton quota for area west of 69° with added provisions for mid-year closure;

(2) amending trawl regulations to increase mesh size to 5-1/8 inch synthetic (5-3/4 inch double manila).

Dr Chrzan (Poland) supported this proposal. Dr Bogdanov (USSR) agreed with the need for control of effort but noted that increased mesh size would cause difficulties for Soviet vessels seeking other species in the same area; also he noted that it would be much more convenient to adopt a single mesh size for all species. Dr Smith (Canada) inquired about the expected benefits of a larger mesh. Dr Brown (USA) replied that the present mesh catches many 2-year-old fish which are considerably below the age of maximum yield-per-recruit, and he also noted that yellowtail do not spawn until age 3. Dr Smith (Canada) asked about the species mix on yellowtail grounds. Mr Hennemuth (USA) noted that although there is a variety of species on yellowtail grounds, the yellowtail probably are distributed in small aggregations as indicated by the success of USA yellowtail fleet in finding concentrations. Mr Hennemuth allowed that increased mesh might cause some problems for foreign fleets but he noted that in mid-1960's significant activity of these vessels in southern New England resulted in little reported flounder catch.

10. Conservation of Herring Stocks. The Chairman called attention to Comm. Doc. 71/17 and 71/20 dealing with US and Canadian proposals for conservation of herring stock. Mr Iles (Canada) summarized briefly the results of deliberations in the herring Working Group and the Assessment Subcommittee noting that the general picture shows severe decline in abundance of stocks in Subarea 5 (and Subarea 6)

in response to fishing and the most recent estimates show that mortality rate is very high. The decline is also partly attributed to lower recruitment in recent years (as compared with large year-classes of early 1960's). Intermingling of juveniles is not well understood, but in any case, there is no firm evidence to indicate any significant improvement in recent recruitment from the various spawning stocks taken as a whole. Mr Iles emphasized that if the high fishing rate continues, there is a danger that spawning stocks may be driven so low that good recruitment may be extremely unlikely even under favourable environmental conditions. Dr Smith (Canada) then asked for comments on the regulation proposals. Dr Ridgway (USA) noted briefly that the proposals would impose:

(1) annual quota of 150,000 tons in Div.5Z and Subarea 6;

(2) annual quota of 20,000 tons for adults in Div.5Y;

(3) annual quota of 40,000 tons for juveniles in Div.5Y and 4X;

(4) minimum size limit of 7 inches, with certain exemptions for fish 4-1/2 to 7 inches used for food.

Dr Bogdanov (USSR) commented that there was no doubt that the herring stocks were being depleted and noted that restrictions were needed on fishing of both juveniles and adults. Prof Chrzan (Poland) agreed that herring stocks were in trouble and that conservation measures were needed, but he suggested closing spawning grounds might be more effective than a quota. Dr Ridgway (USA) noted the view of some biologists that destruction of eggs from scouring by trawl doors might be a serious factor, particularly with reduced number of spawning aggregations and heavy concentrations of vessels. Mr Hennemuth (USA) expressed the view that whether or not benefits might accrue from closure of spawning grounds (and this is included in the US proposal), there was a need for a quota to prevent any further depletion of the stocks. Dr Schumacher (Fed. Rep. Germany) asked whether we could be sure that a 50% reduction in catch would be needed in order for the regulation to be effective. Mr Hennemuth indicated that firm estimates are not possible but that it would do very little good to say only that we should prevent further increases in landings - rather a very significant decrease will be required and a 50% decrease is felt to be a minimum which is likely to provide any real benefit.

11. Future Research and Other Matters. Mr Hennemuth (USA) concluded that it was imperative that more assessment activity be carried out,especially in the case of herring, and he urged that member countries speed up the analysis of existing data. Finally, Mr Hennemuth noted the need to consider ways of achieving more flexibility in the implementation of catch quotas, and he referred the Advisers to the discussion on the matter in the Assessment Report.

12. Time and Place of Next Meeting. It was agreed that the next meeting of the Scientific Advisers would be held at the next Commission meeting.

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Serial No. 2652
(A.a.4)

Proceedings No. 6
Appendix II

ANNUAL MEETING - JUNE 1971

Proposed Quota Regulation for Yellowtail Flounder in Subarea 5

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 Subarea 5 so that the aggregate annual catch of yellowtail flounder per annum shall not exceed:

(a) 16,000 metric tons from fishing grounds east of 69°W;

(b) 10,000 metric tons from fishing grounds west of 69°W.

2. That Competent Authorities of each Contracting Government shall report bi-weekly yellowtail flounder catches by persons under their jurisdiction taken in each of the areas referred to in paragraph 1 to the Executive Secretary of the Commission not later than 7 days after the end of a two-week reporting period. Information of yellowtail flounder by-catch taken by the vessels which do not conduct specialized fishing for yellowtail flounder shall be reported to the Executive Secretary of the Commission in 700-ton increments. The Executive Secretary shall notify each Contracting Government of the dates on which accumulative catch and estimated catch of yellowtail flounder from each of the areas referred to in paragraph 1, 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 for the area in question. Within 10 days of receipt of such notification from the Executive Secretary, each Contracting Government shall prohibit catches of yellowtail flounder by persons under their jurisdiction from the area or areas referred to in the notification from the Executive Secretary, except as provided in paragraph 4.

3. That the Executive Secretary may, if, on the basis of further information, he finds that the catch for the year in either of the areas referred to in paragraph 1 will equal less than 100 percent of the allowable catch for the area in question after the closure provided in paragraph 2, inform Contracting Governments that fishing for yellowtail flounder in such area may be permitted for a further period of a stated number of days, such period to begin 10 days after the date of notification.

4. That in order to avoid impairment of fisheries conducted primarily for other species and which take small quantities of yellowtail flounder incidentally, the Contracting Governments may permit persons under their jurisdiction to have in possession on board a vessel fishing primarily for other species subsequent to a closure referred to in paragraph 2, yellowtail flounder caught within such a closed area in amounts not exceeding 5,000 lb or 2,268 kg, or 10 percent by weight, of all other fish on board caught in the closed area.

5. That the Commission shall review the allowable catches provided in paragraph 1 at each Annual Meeting, and shall propose such changes as are necessary from time to time, taking into account such factors as fishing and natural variations in abundance.

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RESTRICTED

Serial No. 2652
(A.a.4)

Proceedings No. 6
Appendix III

ANNUAL MEETING - JUNE 1971

Proposed Amendment of Subarea 5 Trawl Regulations to Increase Mesh-Size Requirements in Fisheries for Yellowtail Flounder

That paragraph 1 of the trawl regulations applicable in Subarea 5 be replaced by the following:

"1. That the Contracting Governments take appropriate action to prohibit (except as provided in paragraph 2) the taking of cod, *Gadus morhua* L., haddock, *Melanogrammus aeglefinus* (L.); and yellowtail flounder, *Limanda ferruginea* (Storer), in Subarea 5, by persons under their jurisdiction with trawl nets having in any part of the net meshes of dimensions less than that designated below as measured by the ICNAF gauge, specified below. These mesh sizes relate to manila twine netting when measured wet after use or the equivalent thereof when measured dry before use. The Commission may, on the basis of scientific advice as to selectivity equivalents, determine the appropriate mesh sizes when trawl nets made of materials other than manila are used or when seine nets are used. The dimensions of net meshes referred to above shall be 114 mm or 4-1/2 inches in fisheries for cod, *Gadus morhua*, and haddock, *Melanogrammus aeglefinus*, and 130 mm or 5-1/8 inches for yellowtail flounder, *Limanda ferruginea*.

(a) Mesh sizes are measured by a flat wedge-shaped gauge having a taper of 2 centimeters in 8 centimeters and a thickness of 2.3 millimeters, inserted into the meshes under a pressure or pull of 5 kilograms. The mesh size of a net shall be taken to be the average of the measurements of any series of twenty consecutive meshes, at least ten meshes from the lacings, and when measured in the codend of the net beginning at the after end and running parallel to the long axis.

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Serial No. 2635
(D.b.70)

Proceedings No. 6
Appendix IV
(also ICNAF Res.Doc.71/129 Revised)

ANNUAL MEETING - JUNE 1971

Status of the Fisheries and Research carried out in Subarea 5 in 1970

by

G. F. M. Smith
Fisheries Research Board of Canada
Ottawa, Canada

Reports on research have been received from Canada, Fed. Rep. Germany, Spain, Poland, USSR, UK and USA.

The following papers are pertinent:

Comm.Docs. 71/1, 11, 15, 16, 17, 20.

Res.Docs. 71/14, 26, 17, 28, 32, 41, 43, 44, 47, 48, 50, 53, 54, 55, 56, 57, 59, 61, 84, 85, 87, 92, 97, 99, 100, 101, 102, 105, 106, 113, 114, 115, 117, 122, 125, 126, 128.

1. Status of the Fisheries

The total nominal catch again decreased, from 864,000 metric tons in 1969 to 654,000 tons in 1970 (76%). The decrease was shared by Canada, Spain, USSR and USA, and only moderate increase in tonnage was obtained by Fed. Rep. Germany and Poland.

Notable decreases in catch were shown for all major species except mackerel and this increase is entirely due to effort diverted from other species, especially by Poland and to a lesser extent by USSR.

Subarea 5 Nominal Catch
(000's metric tons - by countries)

	1968	1969	1970	1970/1969
Canada	100	60	47	78%
Fed. Rep. Germany	71	74	92	125%
Poland	80	56	102	172%
Spain	18	16	8	50%
USSR	282	380	166	44%
USA	281	263	230	87%
All countries	906	864	654	76%

Subarea 5 Nominal Catch
(000's metric tons - by species)

	1968	1969	1970	1970/1969
Cod	49	46	35	76%
Haddock	44	25	13	52%
Redfish	7	12	17	140%
Silver hake	81	88	48	54%
Flounders	53	78	55	70%
Red hake	19	50	11	22%
Herring	407	259	219	84%
Mackerel	51	65	102	157%
Alewife	21	26	14	54%
Shellfish	97	107	84	78%
All species	906	864	654	76%

2. Research carried out

The six Comm.Docs and 35 or so Res.Docs. referring in part or whole to Subarea 5 reflect the international concern for decreasing catches of major species and the assessments of the state of the stocks. The Environmental Subcommittee has reviewed and commented on the hydrographic conditions and the Assessments Subcommittee on the state of stocks, the latter at a mid-term meeting in January (Comm. Doc. 71/1) with revisions at the current May sessions.

On the basis of the research documents and Assessments Subcommittee deliberations new conservation measures are being urged for haddock (Comm.Doc. 71/15), yellowtail flounder (Comm.Doc. 71/16) and herring (Comm.Doc. 71/17 and 20).

Joint research cruises in the subarea have been participated in by USSR, USA and Canada.

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Serial No. 2653
(B.e.71)

Proceedings No. 7

ANNUAL MEETING - JUNE 1971

Report of Meeting of Panel A (Seals)

Thursday, 27 May
Wednesday, 2 June
and
Thursday, 3 June

1. The Chairman, Mr O. Lund (Norway), opened the meeting with representatives of the three Panel member countries in attendance. At his invitation, the observers present were identified as Messrs Hennemuth and Johnson (USA); and Drs Ronald and Fisher (Canada) and Mr Trevor Scott (UK), all of whom are appointed members of the Canadian Department of Fisheries and Forestry's Committee on Seals and Sealing.

2. Rapporteur. The Chairman proposed and the Panel agreed that Mr R.N. Gordon (Canada) should act as Rapporteur.

3. Agenda. The Chairman, referring to the draft agenda, suggested the inclusion, as Item 6, of reports on inspection procedures employed during the 1971 seal hunt, noting that Norway has some information to report, and he expressed his hope that Canada would be in a similar position. The Agenda was adopted with this revision.

4. Reception of Briefs. The Chairman noted that the Panel was not in receipt of any briefs.

5. Review of Panel Memberships. All Panel members were present and the Chairman observed that no new applications for membership had been received.

6. Inspection Procedures. The Chairman, reporting for Norway, advised that two inspectors were placed aboard the sealing vessels to ensure that the hunt was being conducted humanely and in conformance with established provisions, with instructions to report any incidents to the vessel captain and the Norwegian Minister. He noted, however, that no incidents were reported in 1971, indicating that the hunt was conducted in accordance with the regulations. He pointed out also that prior to departure from Norway, all weapons were inspected by government officials; the sealers and crews were instructed in the use of the weapons and in the anatomy of seal skulls; and that each man was provided with an instructional booklet. He added that inspections were carried out also on the vessels' return to Norway.

The Chairman reported that the Norwegian catch on the Front in 1971 was 98,600 harp seals.

Mr C.R. Levelton (Canada) said that no infractions by Norwegian nationals had been reported by Canadians. He added that Canada had placed one, and, in many cases, two inspectors aboard each sealing vessel, and that no infractions had been reported. Noting that the Gulf herds were close to the Magdalen Islands in 1971, he said some difficulties were encountered with landsmen, particularly during the first 48 hours, when about 20 licences (more than 2,000 were issued) were cancelled for infractions of the regulations.

Mr Levelton advised that the Canadian vessel catch was 86,000 harp seals (37,000 in the Gulf, and 49,000 on the Front), while the landsmen's catch was 38,000 harp seals (33,000 in the Gulf, and 5,000 on the Front).

7. Scientific Advisers Report. The Chairman of Scientific Advisers to Panel A, Dr G.F.M. Smith (Canada), read the report which appears as Appendix I.

The Chairman of the Assessment Subcommittee, Mr R.C. Hennemuth (USA) summarized the Subcommittee's report. He pointed out the difficulties which the Subcommittee had experienced because of the lack of knowledge with respect to the size of the harp seal population and of the rates of mortality for pups, juveniles, and adults. He noted that on the basis of available data the Subcommittee had concluded

that the estimated sustainable yield was 90,000 pups or, if no adults and juveniles were taken, 174,000 pups.

8. Consideration of Conservation Measures and Requirements. The Panel noted the report of its Scientific Advisers (Appendix I) and of the Assessments Subcommittee of STACRES (Redbook 1971, Part I) that the catch of harp seals must be substantially lower than in 1971 if further decline in the stock is to be prevented. The Panel agreed that the quota for the catch by sealing vessels should accordingly be lower than the quota of 200,000 in effect in 1971, but was unable at this stage to agree on an exact figure for 1972. It was recognized that the catch should be reduced to the level of the sustainable yield. The Panel, however, wished to examine the long-term effects on the seal population of doing so in more than one step, before recommending exact quotas. The members of the Panel agreed to consider this matter in the autumn of 1971 with the expectation that a quota for the 1972 catch by vessels could be established by agreement between the countries concerned. The Panel

recommended

that the Commission transmit to Depositary Government for joint action by the Contracting Governments that the 1971 seal regulations, other than quota, should remain in force for 1972 without alterations.

9. Future Research Required. Dr Smith (Canada) read the Report of the Second Meeting of Scientific Advisers to Panel A(Appendix II).

After some general discussion with respect to the problems associated with the mechanisms and resources by means of which the proposed research program could be implemented, the Report was approved by the Panel subject to the proviso that there would be further discussion at a mutually convenient date and location yet to be determined.

10. Proposed ICES/ICNAF/IBP Symposium on Seals. The Chairman noted that ICNAF had been asked last year to assist with the Symposium, and Dr Smith reported that ICNAF is prepared to contribute $5,000, secretarial assistance, and assume major responsibility for the publications. At the invitation of the Chairman, Dr Ronald (University of Guelph, Canada) briefed the Panel on arrangements, noting that the Symposium will be held in Guelph on 13-17 August 1972 and that 200 invitations are available through the ICNAF Secretariat.

11. Next Meeting. It was agreed that the next regular meeting would be held at the time and place of the 1972 ICNAF meeting.

12. Other Business. There was no other business for consideration by the Panel.

13. Approval of Panel Report. It was agreed that the report of this meeting would be approved by the circulation of a draft among Panel members.

14. Adjournment. The third and final meeting of the Panel adjourned at 1300 hrs, 3 June 1971.

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Serial No. 2653
(B.f.6)

Proceedings No. 7
Appendix I

ANNUAL MEETING - JUNE 1971

Report of Meeting of Scientific Advisers to Panel A

Tuesday, 25 May, 1400 hrs
Wednesday, 26 May, 1330 hrs

1. The Chairman, Dr G.F.M. Smith (Canada) opened the meeting. Representatives of the Panel member countries and several observers and representatives of the Assessment Subcommittee attended.

2. Dr C.J. Kerswill (Canada) was appointed Rapporteur.

3. Chairman's Report. The Chairman reported on the Status of the Harp Seal Fishery and Research carried out (Appendix III; also Res.Doc. 71/130 Revised), which showed the total provisional take of harp seals in 1971 by Canada and Norway to be 222,600. Mr Øritsland (Norway) reported that this year Norway continued the sampling of harp and hooded seals on the Front and plans to continue the program at the same level in future.

4. Consideration of Conservation Measures and Requirements, including an Overall Catch Quota. The Chairman reviewed the present state of development of harp seal management and referred particularly to pertinent stock assessment discussions at the Mid-Year Meeting of the Assessment Subcommittee, January 1971 (Comm.Doc. 71/1), and to the Canadian Proposal Concerning Conservation of Seals in the Convention Area (Comm.Doc. 71/12). In attempting to reach a consensus on a suitable overall catch quota, there was considerable discussion of the interpretation of the table (Comm.Doc. 71/1, p. 7) showing calculations of sustainable harvest of pups from an adult stock of 300,000 females, at various levels of adult mortality and survival of pups to maturity. There was, however, general agreement that 300,000 is a reasonable figure for the present total population of adult female seals. After Mr Hennemuth (USA) had elucidated the principles involved, the meeting agreed to refer the Panel to Comm. Doc. 71/1, and to suggest that, on the basis of present knowledge of harp seal stock and to maintain the Gulf and Front populations at the present levels (i.e., approximately 300,000 adult females), the allowable catch would be about 120,000 seals at the present age-ratios involved in their capture. This implies a total take of about 90,000 pups in 1972.

5. Future Research Required. The meeting expressed great pleasure that Mr Kapel (Denmark) was conducting harp seal investigations in the Greenland area. Urgent topics for future research include continuing effort to improve estimates of all population parameters, for example, mortality rates.

6. Proposed ICES/ICNAF/IBP Symposium on Seals. The meeting noted with pleasure that the Symposium is proceeding in August 1972 at Guelph, Ontario, Canada and an advertising brochure is available from the Executive Secretary. ICNAF is contributing $5,000, secretarial help, and will take major responsibility for ensuring publications.

7. Date and Place of Next Meeting. It was agreed that the next meeting would be held concurrently with the next Annual Meeting of the Commission. It was noted also that research papers on seals should (if possible) be presented and discussed at the Mid-Year Meeting of the Assessment Subcommittee.

8. Election of Chairman. Dr G.F.M. Smith (Canada) was re-elected Chairman for 1972.

9. Adjournment. The meeting adjourned at 1600 hrs, 25 May and 1530 hrs, 26 May.

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Appendix II

ANNUAL MEETING - JUNE 1971

Report of Second Meeting of Scientific Advisers to Panel A

Friday, 28 May, 0930 hrs

1. The Chairman, Dr G.F.M. Smith (Canada), opened the meeting, with representatives of the three Panel member countries and the members of the Assessment Subcommittee in attendance.

2. Dr C.J. Kerswill (Canada) acted as Rapporteur.

3. The Chairman reported that this meeting had been called at the request of the Panel A meeting of the previous day. Its purpose was to review the research program on seals and to suggest how it might be modified if more financial and other assistance were available to better meet the needs for effective management of the seal populations.

4. Review of Past Research and Present Needs. The scientists who had been involved with harp seal research briefly outlined methods used to estimate production, mortality rates, mixing of stocks, etc., and the main problems involved in obtaining satisfactory estimates of all population parameters. Valuable comments and suggestions on the adequacy of various methods and the significance of the resulting data were made by representatives of the Assessment Subcommittee. It was agreed that there was urgent need for improved estimates of

i) annual stocks of adult seals and production of young in the different fishery areas,
ii) pertinent mortality rates from pups to adults and adult mortality rates, and
iii) the extent of mixing of Gulf and Front herds.

5. Future Research Program. The following main projects were proposed for the continuing program of seal research:

a) Marking and recapture, adults and pups. Using tagging and a new cold branding technique, to mark annually a large number of female adults and pups of both the Gulf and Front herds, and at the same time apply an obvious mark on their backs to identify them to sealers, who would be warned not to molest any marked animals.

Suitable numbers of animals to be marked annually:

Female adults:	1,500 Gulf,	1,500 Front;	Total	3,000
Female pups:	2,500 Gulf,	2,500 Front;	Total	5,000

Maximum publicity is to be provided, for example, special instructions are to be issued annually for all sealers on the marking program, including protection of marked animals in year of marking, later reporting of marked animals, etc.

b) Photographic surveys.

i) Undertake a comprehensive aerial photographic survey of seal herds on the ice just before the hunt at intervals of about 5 years, under best possible conditions for flying and photography, to provide continuing direct counts for comparison with earlier photographic population assessments starting in 1950. The best available photographic techniques should be used.

ii) Make a less complete aerial survey annually over the seal herds, comprising:

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Serial No. 2654
(B.d.71)

Proceedings No. 8

ANNUAL MEETING - JUNE 1971

Report of the First Plenary Session

Thursday, 27 May, 1130 hrs

Item 1 — Opening. The First Plenary Session of the Commission's 21st Annual Meeting was called to order by the Chairman, Dr A. W. H. Needler (Canada) after a short recess following the Ceremonial Opening Session which was highlighted by an address of welcome from the Honourable J. Davis, Minister of Fisheries and Forestry for Canada (Proc. 1). The Chairman welcomed Delegates and Advisers from all member countries and the Commission's Observers and Guests. Italy and Romania were not represented. A special warm welcome was extended to the Delegation from the Government of Japan which had become the 15th member of the Commission on 1 July 1970. The Head of the Japanese Delegation, Mr F. Suzuki, thanked the Chairman for its welcome. He said that the Government of Japan would be seeking to participate in the aims and objectives of the Commission as a member of Panels 3, 4 and 5.

Item 2 — Agenda. The Agenda was approved without change.

Item 3 — Publicity. A Committee on Publicity was set up composed of the Chairman and Vice-Chairman of the Commission with the Chairman of STACFAD and the Executive Secretary.

Items 4 to 9 and 31 — 4. Panel Memberships, 5. Administrative Report, 6. Auditor's Report, 7. Financial Statement, 8. Budget Estimate, 9. Budget Forecast, 31. Date and Place of 1972, 1973 and 1974 Annual Meetings. These items were referred to STACFAD.

Items 10 to 13, 24 and 25, 27 to 30, 32 to 34 — 10. Status of Proposals, 11. Annual Returns of Infringements, 12. Simplification of Trawl Regulations, 13. Differentials for Mesh Materials, 24. ICES/ICNAF/IOC Coordinating Group on North Atlantic Oceanography, 25. Reports of NEAFC, ICES, FAO, IOC, SCOR and OECD, 27. Report of STACFAD, 28. Report of STACREM, 29. Report of Panels 1 - 5 and A (Seals), 30. Election of Chairman and Vice-Chairman, 32. Press Statement, 33. Other Business. These items were set aside for later consideration in Plenary Session.

Items 14 and 15 — 14. Exchange of National Inspection Officer, 15. International Inspection Scheme. These items were referred to a later Plenary.

Item 16 — Principles and Problems of Limiting Fishing. It was agreed that this item would be referred to STACREM.

Items 17, 21 and 23 — 17. Conservation of Atlantic Salmon, 21. Conservation of Herring, 23. Maximum Utilization of Regulated Species. These items were referred to a joint meeting of Panels 1 - 5.

Item 18 (a) and (b) — Conservation of Div. 4W and 4X Haddock. This item was referred to Panel 4.

Items 18(c), 19 and 20 — 18(c). Conservation of Subarea 5 Haddock, 19. Conservation of Subarea 5 Silver and Red Hakes, 20. Conservation of Subarea 5 Yellowtail Flounder. These items were referred to Panel 5.

Item 22 — Conservation of Seals. This item was referred to Panel A.

Item 26 — Report of STACRES. The Chairman of STACRES, Dr A. S. Bogdanov (USSR) presented a summary of the Provisional Report of the STACRES. The presentation highlighted the results of deliberations in the

Subcommittees on Assessments, Environment, Statistics and Sampling, the Working Parties on Salmon and on Groundfish Surveys. The Commission Chairman thanked the Chairman of STACRES and the members of STACRES for their efforts and impressive report. The Plenary agreed to accept the Provisional Report while looking forward to receiving and reviewing the complete Report at the Final Plenary Session for approval.

The Plenary recessed at 1230 hrs after agreeing to reconvene at 1430 hrs.

The Plenary reconvened at 1430 hrs.

Item 10 — Status of Proposals. The Executive Secretary reviewed Comm.Doc. 71/5. He reported that, as at 1 May 1971, the Governments of the Fed. Rep. Germany, Italy, Poland and Portugal had not yet ratified the 1969 Protocol relating to panel memberships and to regulatory measures. Also the 1970 Protocol relating to amendments to the Convention required ratification by Canada, Fed. Rep. Germany, Italy, Japan, Poland, Portugal, Romania, Spain, USSR, UK and USA before it could enter into force. Of the 1970 proposals for international regulation of fisheries, the proposal on salmon came into effect for all Contracting Governments, except USSR, on 8 March 1971. Proposals for catch quota and mesh size for yellowtail flounder in Subarea 5, for mesh size in Subarea 2, for seals in the Convention Area and for a scheme of joint international inspection in the Convention Area came into effect on 7 January 1971. The proposal for mesh size in Subarea 3 came into effect for all Contracting Governments, except Canada, Portugal and Spain, on 15 April 1971, while for Poland it would become effective on 1 January 1972. The USSR, UK and Poland raised items for clarification and the USA delegation agreed to obtain the latest information on ratifications from the Depositary Government's Department of State.

Item 11 — Annual Returns of Infringements. The Executive Secretary reviewed Comm.Doc. 71/6 which provided summaries of mesh size, mesh obstruction, excess landings and closed area violations during 1970. The Norwegian delegate reported that Norwegian inspections had taken place in harbours while vessels fish in both the Northeast and Northwest Atlantic. Now inspections will take place at sea and information concerning these will be reported in the future. The US delegate reported that it had a continuous surface patrol in areas during closed periods and no violations were reported.

Item 12 — Simplification of International Trawl Regulations. The Executive Secretary reported that preparation of Comm.Doc. 71/13 had been delayed due to shortage of staff but would be completed as soon as possible.

Item 13 — Differentials for Mesh Materials. The Executive Secretary pointed out that in 1967 the Commission adopted authorized mesh-size differentials for different trawl materials using manila as a basis. Now manila is no longer used as a twine material. The Commission at its 1970 meeting could not agree to any departure from the authorized differentials. Following short discussion in which the Norwegian and UK delegates contended that there was no practical value in a change in that it would not give any simpler or easier mesh regulations than the Commission already has, it was agreed that the item should be set aside for the time being.

Item 14 — Exchange of National Inspection Officers. There were no reports of exchange having taken place between any of the member countries during the year 1970.

Item 15 — International Inspection Scheme. The Chairman pointed out that the ICNAF scheme of joint international enforcement adopted at the 1970 Annual Meeting had come into effect on 7 January 1971 for all Contracting Governments subject to reservations for USSR, Poland and Romania and that application of the scheme was to start from 1 July 1971. He asked for any comments on each country's preparedness and if there were any difficulties which should be looked into. The Portuguese

delegate reported that his country was ready to implement the scheme in 1971 but not to the full extent. He also reported that inspection officers and administrators concerned with the operation of the NEAFC scheme would be meeting in Lisbon during March 1972 and that inspection officers and administrators of the ICNAF scheme would be welcome to attend. The US delegate reported that legislation had been introduced and that vessels and officers would be ready to participate by 1 July 1971, but that until the legislation is adopted US fishing vessels cannot be required to accept inspection by an officer of another country participating in the scheme. The Danish delegate reported that a law had been enacted and that Danish fishermen must accept inspection by vessels of other participating nations. Attempts were being made to arrange for inspection vessels through the fisheries and marine services. The Norwegian delegate reported that, like Denmark, inspections could be carried out but that there was no inspection vessel in the Northwest Atlantic yet. The UK Delegate reported that his Government was preparing domestic legislation. The fisheries protection service was fully occupied in home waters. British fishing in ICNAF waters was limited at present. The Canadian delegate expected legislation to be enacted by 1 July. The USSR delegate reported that his Government is ready for the implementation of the scheme in the Convention Area starting 1 July 1971, subject to certain reservations made by the USSR Government. The French delegate said his government had had the necessary legislation since January 1971 when it was enacted for NEAFC but that at present there was only one inspection vessel. The Fed. Rep. Germany delegate expected legislation to be passed in the autumn of 1971 and be ready for legislation by early 1972. The Japanese delegate reported existing legislation would allow his Government to participate in the scheme and to send inspectors on fishing boats to Subareas 3, 4 and 5 from July 1971. The Spanish delegate reported ready to participate with two inspectors and inspection vessels any time. The Polish delegate said Polish vessels were ready to accept inspection subject to the reservations. The Iceland delegate reported his Government was preparing the necessary legislation which hopefully would be ready this year. Following the Chairman's request for other comments, the US delegate proposed that the small group under Capt J. C. E. Cardoso (Portugal) be set up again this year to review the progress made in implementing the proposal for the application of the scheme. He also expressed the hope that USSR, Poland and Romania might reconsider their need for reservations to the scheme in view of new regulations and the possibility of a fish size-limit regulation soon. The Portuguese delegate pointed out the need for reciprocal inspection with each participating country ready not just to inspect but at the same time to be inspected. The Norwegian delegate felt there should be some clarification of whether or not the scheme applies only to mesh size.

The Plenary then agreed to set up a small working party under Capt Cardoso to review the progress of the mechanics of application of the scheme. Delegations were asked to name participants. The Plenary agreed to give further consideration to the item when the Working Party reported back to a later Plenary.

The Plenary agreed to a change in the Friday timetable of meetings to allow for consideration of the "sliding scale" concept of quota allocation in a meeting of the STACREM in the morning starting at 0930 hrs and for a meeting of Panel 1 at 1430 hrs and Panel 2 at 1600 hrs.

The Plenary adjourned at 1550 hrs.

INTERNATIONAL COMMISSION FOR THE NORTHWEST ATLANTIC FISHERIES

RESTRICTED

Serial No. 2655
(B.p.)

Proceedings No. 9

ANNUAL MEETING - JUNE 1971

Report of Meeting of STACREM

Friday, 28 May, 0930 hrs

1. The meeting of the STACREM was called to order by the Chairman, Mr J. Graham (UK) with all member countries, except Italy and Romania, represented.

2. Rapporteur. The Executive Secretary was appointed Rapporteur.

3. The Chairman noted that the meeting was called following a recommendation by the meeting of the *ad hoc* Working Group on ICNAF Fisheries held on 24-26 May 1971 (Comm.Doc. 71/21) that the "sliding scale" concept of preferential allocation of national quotas developed by NEAFC in October 1969 and noted by STACREM at its Mid-Term Meeting 21-22 January 1970 (paragraph 4 of Appendix II of the 1970 ICNAF Meeting Proceedings No. 8) should be discussed further by STACREM.

4. The Chairman noted that, as a basis for discussion, the USA and UK delegations had prepared a joint memorandum on Provision for Factors other than Historical Performance (Appendix I). The USA delegate introduced the memorandum which proposed that STACREM recommend that the Commission endorse the conclusion of NEAFC that there should be a sliding scale, by which the lower the level of the total allowable catch, the greater might be the degree of preference accorded to those countries having special needs, i.e., factors other than historical performance.

5. The Japanese delegate emphasized the difficulty of the allocation problem and suggested consideration of the practicability of other regulatory measures. He thought that the guidelines might be helpful but that their application must be practical and realistic and subject to negotiations to determine the weight given to the various concepts (Appendix II).

6. The Danish, Portuguese, French and Fed. Rep.Germany delegates agreed that the sliding scale was a mechanism which could be useful in some cases but should not be automatically applied in all.

7. The UK delegate agreed with the USA delegate that this concept was a further guide line to those agreed to by the Commission in paragraph 10 of Appendix I of the 1969 ICNAF Meeting Proceedings No. 11 for use in national quota allocations.

8. The USSR delegate said that, in the view of the USSR, quotas should be allocated mainly on the basis of historical performance during the preceding 3 or 5 years, with some part of the catch reserved for countries with recently established fisheries as well as for non-member countries. Subject to this general principle, the special interests of small coastal fisheries could be taken into account. The necessity for better and earlier catch statistics and reporting was emphasized (Appendix III).

9. The general consensus that the wording of the last paragraph of the USA-UK memorandum was too strong resulted in its alteration from "The Committee recommends that the Commission should endorse this conclusion" to read "The Committee recommends that this concept should be included in the guidelines for the negotiations of catch limitation schemes". In addition, it was agreed that the second last paragraph should be amended by deleting "When the NEAFC Study Group of the N.E. Arctic considered this question in October 1969, they concluded" and substituting "As a possible solution, it was suggested". The USA-UK memorandum, as amended (Appendix I), was then adopted by the STACREM.

10. The USA delegate drew attention to the proposed meeting of the *ad hoc* Working Group on Subareas 4 and 5 Fisheries at 0930 hrs, Saturday, 29 May to deal with the application of concepts for quota allocation in relation to groundfish and other species in the Subareas 4 and 5.

11. The STACREM adjourned at 1150 hrs.

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INTERNATIONAL COMMISSION FOR THE NORTHWEST ATLANTIC FISHERIES

Serial No. 2655
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Proceedings No. 9
Appendix I

ANNUAL MEETING - JUNE 1971

USA-UK Memorandum on Provision for Factors other than Historical Performance

(Proposed deletions are enclosed in square brackets and proposed additions are underlined.)

The report of the Mid-Term Meeting of the Standing Committee on Regulatory Measures held in London in January 1969 (see paragraph 10 of Appendix I of 1969 ICNAF Meeting Proceedings No. 11) envisaged that, in determining each country's share under a scheme of catch allocation, a small proportion of the total should be set aside to provide for new entrants and non-members, and the remainder allocated between countries participating in the fisheries. The shares should be based mainly on historical performance but should also take account of other factors such as provision for states with developing fisheries, coastal states, and states with fleets which were incapable of being diverted to other fisheries.

While the Committee considered that it would be impracticable to lay down hard and fast rules to determine the weight that should be given to these other special factors in any particular scheme, the Report might be thought to imply that, once the weighting had been determined, it would apply at all levels of total catch; that is to say, that the same percentage of the total catch should be allocated in respect of the special factors when a favourable stock position enabled the catch limit to set at a high level as when a depleted stock necessitated severe restrictions. The consequence would be that in absolute terms a smaller allocation would be made in respect of special factors in a situation where the catches of the countries concerned were being severely restricted, than when they were being only moderately restricted. This would be anomalous because up to a certain point the less severe the restrictions, the less is the need for special treatment.

[When the NEAFC Study Group on the N.E. Arctic considered this question in October 1969, they concluded] As a possible solution, it is suggested that the percentage shares of different countries would not necessarily remain the same at all levels of total catch, but that there should be a sliding scale, by which the lower the level of the total allowable catch, the greater might be the degree of preference to those countries having special needs, i.e., factors other than historical performance.

The Committee recommends that [the Commission should endorse this conclusion] this concept should be included in the guidelines for the negotiation of catch limitation schemes.

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Serial No. 2655
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Proceedings No. 9
Appendix II

ANNUAL MEETING - JUNE 1971

Statement by the Japanese Delegation to STACREM, 28 May 1971

Mr. Chairman:

I wish to take this occasion to express the basic views of the Government of Japan concerning the question of quota allocation.

I know ICNAF has done a good amount of work on the problem of quota allocation. Since Japan is a new member of the Commission, I am not quite sure myself how I can make any contribution to the discussions of the present problem. But I can say that Japan also has records of active participation in the discussions of allocation problem. These were at the Inter-American Tropical Tuna Commission, the Plenipotentiary Conference for the adoption of the Southeast Atlantic Fishery Convention held in 1969 and others.

Therefore, I should like to inform you of our experience as well as the position of the Japanese Government regarding the problem. I think this is particularly necessary and important for Japan, because in the past, some countries might have misunderstood that Japan was totally opposed to the concept of quota allocation. But this is not true. Japan has not ever expressed its opposition to the concept of quota allocation.

On the other hand, however, we have pointed out to other countries the very difficult nature of the problems involved. We, therefore, maintain that, instead of the idea of quota allocation, the practicability of adopting other regulatory measures satisfactory for all should be considered. If the answer to this proposition is "no", and the opinion of the nations concerned is in favour of nothing but national allocation, then Japan has no reason to be against it.

As a matter of fact, Japan is a member of the Antarctic Whaling, and here the system of national allocation of whales is adopted for many years.

But I am still not fully convinced whether a formula of quota allocation can be established for the members of the Commission.

I do not think it necessary for me to enumerate the complexities of this problem. But just let me quote paragraph 11 from the Report of the Mid-Term Meeting of STACREM, London, 27-29 January 1969 (1969 Meeting Proceedings No. 11, Appendix I), and I quote, "The Committee considered that it would be impracticable to lay down hard and fast rules to determine the weight that should be given to the various factors mentioned above. This would have to be settled by negotiation between the member countries participating in any particular scheme. Nevertheless, the Committee agree on the following guidelines which indicate in general terms how the various factors might be taken into account."

I believe the paragraph I have just read is self-explanatory.

In solving the knotty problem, I think the Commission is fortunate enough in that it has general guidelines for national allocation; that is, a combination of historical and special factors as is contained in the same report.

In employing these general guidelines, we must be practical and realistic. Our task must be the achievement of a compromise through negotiations among the countries concerned. I should like to stress again that this will be the only solution which must be satisfactory for all countries concerned.

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INTERNATIONAL COMMISSION FOR THE NORTHWEST ATLANTIC FISHERIES

Serial No. 2655
(B.p.)

Proceedings No. 9
Appendix III

ANNUAL MEETING - JUNE 1971

Statement by the USSR Delegation to STACREM, 28 May 1971

When the possible methods of allocating national shares of the total catch quota were discussed earlier, the Soviet Union expressed support for the principle whereby the shares should be allocated mainly in accordance with the proportion of the national catch in the total catch taken in an area in the preceding 3 or 5 years, with some part of the catch reserved for the countries with recently established fisheries as well as for non-member countries.

Subject to the general agreement on this principle, the Soviet Union will have no objections to taking into account the special interests of small coastal fisheries.

The *ad hoc* Working Group on ICNAF Fisheries has done a great deal of work in considering different concepts which might apply to national quota allocations. The tables presented may serve as a confirmation of the fact that it would be a very difficult problem indeed to work out a certain invariable mathematical formula for quota allocations in all Subareas and for all species. The illustrative example of the 20% and 80% allocations is just an example which cannot take into account all factors applying to a specific fishery. In other words, it is quite evident that the figures given in the tables do not reflect the main principle, i.e., the proportionateness of the losses sustained by all countries under the conditions of catch limitation.

It is our belief that when the Commission has the right to allocate quotas on the basis of economic and technical factors, the national shares should be determined in each particular case on the basis of an agreement between the countries concerned, rather than by the application of purely mathematical methods.

The Soviet delegation believes that the suggestion to eliminate the years of overfishing from the calculations, which is given in Canada-USA Notes on Quota Allocation Procedures, should be supported.

As to the "sliding scale" we have to say again that the Soviet delegation cannot support this concept in principle because the automatic allocation of greater shares to coastal fishermen as the total quota decreases would not stimulate their interest in the increase of the stocks to a level providing the maximum sustainable yield.

While recognizing the importance and usefulness of the discussion on national quota allocations, we would, however, like to point out that no quota allocation scheme can be effective unless it is based on reliable catch data recorded on board the fishing vessels. Such statistics are not provided by all the countries and the catch records in fishing ports are not reliable because they apply to landings and many European fishing vessels land their catches in foreign ports.

In these circumstances, it is not possible to control catches and this makes any system of quota allocations rather doubtful.

We have introduced the system of recording the catches in fishing logs on Soviet vessels and we realize that it takes some time to arrange for such a system. At the last meeting we suggested that such an obligatory system of recording the catches in fishing logs should be introduced on the fishing vessels of all member countries but, unfortunately, very little progress has been made during the past year. We, therefore, believe that this matter requires urgent consideration if we do not want any further delays in the solution of the problem of regulating the catch. It would be very valuable if the member countries could supply the Secretariat with the information on how they are going to handle catch data.

INTERNATIONAL COMMISSION FOR THE NORTHWEST ATLANTIC FISHERIES

RESTRICTED

Serial No. 2660
(B.e.71)

Proceedings No. 11

ANNUAL MEETING - JUNE 1971

Report of the Joint Meeting of Panels 1-5

Tuesday, 1 June, 0930 hrs
Wednesday, 2 June, 1430 hrs

1. The Chairman of the Commission, Dr A.W.H. Needler (Canada) opened the meeting which was convened to consider Plenary Item 21, Conservation of Herring Stocks in the Convention Area. The Executive Secretary, Mr L.R. Day, was appointed Rapporteur. The Chairman pointed out that the joint Canadian-USA memorandum on conservation of herring (Comm.Doc. 71/17) had been revised (Appendix I - "Revised Canadian-USA Herring Proposals"), after further consideration by the Canadian and USA delegations, because much of the herring fishery resource is outside the Convention Area. About 90% of the juvenile herring fishery is inside Canadian and USA territorial waters and thus outside the Convention Area, where it was felt the Commission had no competence to put a quota on that fishery. As a consequence, national action has to be taken. This made it necessary to withdraw some of the conservation actions proposed for the Commission and to revise the original Canadian-USA proposal as presented in Comm.Doc. 71/17. He assured the delegates that national action would be taken to carry out conservation actions on the basis of recommendations of the Commission scientists as if such fisheries, which were prosecuted before the 1949 Convention was established, were within the Commission's orbit of competence. Scientific and statistical information would continue to be provided on these stocks.

2. At the request of the Chairman, the USA delegate introduced the joint Canadian-USA memorandum "Revised Canadian-USA Herring Proposals" (Appendix I). He pointed out that USA had reviewed its views as presented in Comm.Doc. 71/17 after consultation with Canada and the new memorandum (Appendix I) reflects these new views. After reviewing Proposal A (Div. 5Z and Subarea 6), Proposal C (Div. 5Y), and Proposal D (Div. 4W and 4X) of the joint memorandum, he emphasized the urgent need for a herring conservation program in the southern part of the Commission Area. He pointed out that the scientific study has advanced far enough to say that the stock is seriously overfished. The proposed revised measures will hold the line until more research information becomes available.

3. The Canadian delegate pointed out that Proposal A is unchanged from that in Comm.Doc. 71/17. However, he proposed a change in Proposal D from a catch quota of 100,000 tons to 80,000 tons because from 20,000 to 25,000 tons is taken inside Canadian territorial waters. Regarding the juvenile herring stocks in Div. 5Y of Subarea 5 and a portion of Div. 4X of Subarea 4 where 90% of the fishing is inside territorial waters, he pointed out that Canadian legislation to be effective in July 1971 will provide for:

(1) a ban on the use of artificial light to catch herring;

(2) a minimum size limit of 4 1/2 inches;

(3) only fish of over 7 inches to be used as industrial fish; and

(4) no fishing on Saturday and Sunday of each week.

He further pointed out that the Canadian fishery for juveniles ("Canadian sardines") produced about 1,000,000 cases of canned fish for human consumption and that the economy of some Canadian communities was based completely on the industry.

4. The USA delegate reported that national action had also been taken by his government to reduce the catch of small immature herring. This action included the same size limits and ban on artificial lights as taken by Canada. He estimated that the Canadian and USA national action would result in a saving of as many as 20,000 to 25,000 tons of small fish each year.

5. In response to a request from the Danish delegate for clarification of the proposals, the USA delegate reported that the suggested 150,000-ton quota in Div. 5Z and Statistical Subarea 6 (Proposal A of Appendix I) represented considerable reduction from the 1969 catch of 264,000 tons and the 1970 catch of 217,000 tons, while the 40,000-ton quota in Div. 5Y (Proposal C of Appendix I) was roughly the same as the 1970 catch. In the latter case there was a great need for more research and better statistics. Regarding the allowance for by-catch of regulated species in Proposal A as a fixed tonnage and in Proposal C as a percentage, he stated that these proposals had been made considering the differences in the herring fishery in the various areas. Regarding the problem of identifying the source of catches, he regarded this problem as a common one in quota regulation and some solution might be found through the adoption of a standard log book for all fishing vessels and the implementation of the joint inspection program.

6. The Chairman recognized the USSR delegate who made the following presentation:

"As is evident from the STACRES report the status of the herring stocks in Northwest Atlantic causes deep concern. The abundance of herring is adversely affected by a number of unfavourable factors. It is evident that the stocks are adversely affected not only by the environmental conditions and the recruitment of a number of poor year-classes but also by the intensive fisheries. The proposals on herring fishery limitations including the catch quota proposal (Comm.Doc. 71/17) which were received by the Soviet delegation much too late and not within the time provided for by the Convention are not based on adequate scientific findings. This suggests the urgent necessity for intensive research on herring to obtain the required data without too much delay and the USSR is willing to take a most active part in such research. In these circumstances the Soviet delegation would like to call the Commission's attention to its earlier proposal suggesting that the member countries should refrain from increasing their herring catches beyond the average level of the catch obtained during the past 3 or 5 years. There is sufficient evidence to show that the herring stocks are most adversely affected by the large scale fisheries for small immature herring. In these circumstances it would seem to be most inconsistent to establish a large catch quota for these immature herring fisheries as well as to provide for an incidental catch of these fish in an amount as high as 25%. It would seem that to conserve the herring stocks it would be necessary to envisage more drastic limitations, in particular to completely ban the specialized fishery of herring below 7 inches in length and to limit the incidental catch to 10% of the total catch of fish taken. It is the viewpoint of the Soviet delegation that the limitation of the mesh size in herring nets is ineffective because the fish escaping from the nets have been found to be in non-viable condition. This measure has already been considered and rejected by the NEAFC. The fishery regulatory measures proposed by the USA for Statistical Area 6 are beyond the terms of reference of the Commission and the ICNAF is not in a position to make any decisions concerning any area outside the Convention Area. These problems will have to be considered and solved outside the Commission. On the whole the idea of standardizing the size of incidental catch in all Subareas calls for support because the existing system is rather imperfect and creates numerous possibilities for violations. The criterium of the incidental catch expressed only in terms of weight as proposed by the USA would create the possibilities for smaller vessels to have on board too high catches of regulated species as incidental catches. This would be unfair to bigger vessels and would result in depleting the stocks of regulated species. As to the control over the implementation of the quota in case it is adopted by the Commission, the Soviet delegation would like to emphasize that it should be the same for all species in the Convention Area and should be based on reliable statistics of catches recorded aboard fishing vessels."

7. In response, the USA delegate pointed out that to maintain the catch at the same level as for the past 3 - 5 years would mean catching about 300,000 tons which was impossible with the drastic decline in catches since 1968. The Canadian and USA actions previously outlined by the Canadian and USA delegates are designed to meet the need for adequate conservation measures on juvenile herring inside territorial waters in Subareas 4 and 5. It was further pointed out that there was no exemption for fish under 7 inches in the new proposals (Appendix I) and that the difficulties of regulation in Statistical Subarea 6 by the Commission were recognized but these could be overcome in other ways. With regard to the use of a percentage exemption, he said the USA was flexible on this point. He agreed that there was need for a uniform logbook and the USA was prepared to move in that direction.

8. The USSR delegate noted that the STACRES report (Redbook 1971, Part I) called for the need for a catch limitation but that it gave no figure for the maximum sustainable yield. While waiting for further scientific findings, the 3- or 5-year average could be applied as action to preserve the stock since it would give a catch of 280,000 or 240,000 tons respectively.

9. The Fed. Rep. Germany delegate stressed the serious situation in the stocks and said his government would cooperate in establishing a reasonable quota. He pointed out that the catch of the Fed. Rep. Germany was for human consumption only. A proposal to have the adult herring catch begin 1 June in all areas was presented. He agreed with the USSR delegate concerning exemption at the 10% level. In regard to the Canadian and USA national proposals, he noted that NEAFC regulatory measures applied in territorial waters. The Chairman pointed out, however, that the NEAFC convention includes territorial waters while the ICNAF convention does not.

10. The Polish delegate said there was not enough time to study the revised proposals but that Poland would give consideration to any conservation ideas. Herring in Poland were used for human consumption. He believed that the USA and Canadian national actions would contribute to the betterment of the herring stocks in the areas concerned. He noted that interesting proposals for conservation were presented but Poland would also like to see spawning areas considered. He emphasized the need for more scientific information and analysis and for a special body within the Commission to work up the data.

11. The USA delegate pointed out that, with a 50% decline in herring catches from 1968 to 1970, the 1971, 1972 and 1973 catches will surely be lower with the increasing effort and decreasing stock. Therefore the Canadian-USA quota proposal was not severe. He urged that analysis of herring data be speeded up and that all countries collect more data and increase their research efforts. He noted that the ICES/ICNAF/FAO Stock and Recruitment Symposium, Aarhus, Denmark, July 1970 recorded the need for immediate restrictions. He believed that further delay of the implementation of a conservation program was dereliction of the Commission's duty.

12. In adding a further point, the Canadian delegate reported that in the past year the number of licences issued for Canadian vessels to catch herring in the Bay of Fundy and Gulf of Maine area had been frozen.

13. With no consensus having been reached, the USA delegate suggested that the problem be left for further consideration at a later session.

14. The meeting recessed at 1230 hrs.

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15. The Joint Meeting of Panels 1 - 5 was reconvened at 1430 hrs, 2 June, under the Commission Chairman. The Romanian delegate joined the meetings for the first time and presented his credentials.

16. The Chairman requested consideration of a joint USA, UK, USSR proposal regarding the use of alternative mesh measuring gauges. Following presentation of the proposal by the USA delegate, the Joint Panels 1 - 5

recommended

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

that the sentence which reads "The Commission may also, on the basis of scientific advice, approve not more than two alternative gauges, by defining the gauges, together with approved methods for their use and with accepted scales of equivalent mesh dimensions," be deleted from paragraph 1 of the International Trawl Regulations for all five subareas.

17. The Chairman then requested the USSR delegate to present a USSR proposal regarding mesh-size regulation. The Soviet delegate suggested that in order to conserve the fish stocks in the Convention Area, as well as to provide for the necessary control on implementation of accepted trawl fishery regulations, it was strongly desirable to

introduce a mesh size of 130 mm for regulated species in the whole Convention Area, i.e., to extend the mesh-size regulations already in force for Subareas 1, 2 and 3 to Subareas 4 and 5. Following considerable discussion in which no consensus could be reached, the meeting agreed to leave the proposal for further consideration at the 1972 Annual Meeting.

18. Under Plenary Agenda Item 17, Conservation of Atlantic Salmon in the Convention Area, the Chairman drew attention to three documents on the conservation of Atlantic salmon, a Canadian proposal (Comm.Doc. 71/24), a USA memorandum (Comm. Doc. 71/26) and a Danish proposal (Appendix II). The Chairman reviewed the 1969 proposal by the Commission to ban fishing for salmon on the high seas. This became binding on all member countries except Denmark, Norway and Fed. Rep. Germany. The 1970 proposal which required mainly a limitation on catch or effort to the 1969 level was accepted by all member countries except USSR.

19. The Canadian delegate drew attention to the Canadian proposal and to the large numbers of salmon taken at West Greenland which would have returned to Canadian waters as 2-sea-year salmon. He pointed out that Canadian rivers contribute about one-half of the salmon stock present in West Greenland and, therefore, about one-half of the catch consists of fish of Canadian origin. Large salmon have declined severely in recent years, particularly in one of the largest salmon rivers in the country. The Canadian Government, therefore, feels that conservation on these large salmon must be intensified. Canada has already instituted substantial reduction of commercial and angling effort in Canadian waters which it is expected will reduce Canadian catch by over 30%. He believed that those countries fishing at West Greenland ought to share in these conservation measures to ensure future production of large salmon.

20. The Danish delegate said that Denmark had studied the STACRES reports and the Salmon Working Party reports and the documents submitted by USA and Canada. He was pleased to note that there had been a real effort in the Canadian proposal to keep the emotional aspect out of the matter, but found that the conclusions drawn in the Canadian and USA papers were much more far reaching than the scientists themselves had dared to go based on the existing material. He said that conservation of large salmon was also a Danish interest and that Denmark will contribute to such conservation but that new restrictions should not be set up before the necessary information was available from the scientists and before the effect of the present regulations is known. He noted that catches in 1970, even before the agreed increases for 1971 had come into force, had declined somewhat. In view of the above, his government could not accept the Canadian proposal and suggested adoption of the Danish proposal with the review and amendment paragraph 5 on page 2 of the Canadian proposal.

21. The Japanese delegate said:

"Japan believes that anadromous fish such as salmon, as in the case of any other fish resources, should be exploited as well as managed at the joint responsibility among countries concerned and that conservation measures for such fish should, therefore, be considered at the equal burden and responsibility among countries concerned. Japan cannot go along with the view that only those countries which possess spawning rivers should be allowed to fish for salmon and other countries should be totally prohibited, even though such arrangement would be for the purpose of conservation of resources. What I have just stated is the Japanese basic view which we have reiterated on every possible occasion in the past, and now I would like to make it clear that Japan holds the same view with regard to Atlantic salmon as well. However, Japan has no intention to fish for Atlantic Salmon. Japan joined the ICNAF in 1970 at the time when the Commission's recommendation had been adopted concerning total ban of Atlantic salmon fishing on the high seas. May I add that despite the aforementioned position of Japan, it is not to be denied that Japan is automatically bound by that recommendation."

22. The USSR delegate said his delegation considered that the fishery regulation measures in the ICNAF area should be equally applied to all countries - members of the Commission. The recommendation concerning regulation of the salmon sea fishery was actually giving preference to the countries objecting to a ban on fishing for salmon at sea. It provided for them an opportunity to conduct that fishery, subject to certain regulations. At the same time, the opportunity was not provided for the countries which supported at the 19th ICNAF Annual Meeting the full prohibition of such fishery. The Soviet delegate reported that the above mentioned recommendation was unacceptable to the USSR fishermen.

On 9 December 1970, the USA State Department had received an appropriate note from the Soviet Embassy with the Soviet view that limitation by each Contracting Government of the aggregate tonnage of vessels employed in the salmon fishery was beyond the terms of reference of the Commission as defined in Article VIII, para. 1, of the Convention of 1949.

23. The USA delegate said that the USA had very reluctantly agreed with the compromise proposal in 1970 in order to prevent a further increase in salmon fishing. He was happy to see no appreciable increase in the catch in 1970 when the ban was in effect for most countries. He pointed out that the USA was spending $1-1/2 million to $2 million each year to restore Atlantic salmon runs but he felt it was of little use to continue restoration expenditures in view of the large high seas fishery. He said that the high seas fishery contributes to the mortality of salmon and, therefore, to the present decline, as shown in the Canadian decline of large salmon. He pointed out that Denmark's wish to continue fishing at the 1969 level was no contribution to conservation as 1969 was the highest level of salmon fishing in West Greenland. He reiterated that the USA had studied the problem of salmon management and that a high seas fishery cannot be managed. He urged all present to adopt the Canadian proposal for further reduction.

24. The UK delegate said the UK had supported the 1969 ban and would have been pleased if it had been effective. Even then, UK would have been prepared to accept a compromise had one been offered because concessions to other points of view are usually necessary to secure agreement. Last year the UK was prepared to accept a compromise acceptable to Denmark, though it would have been glad if greater restrictions could have been applied. However, UK preferred measures which secured some restrictions over declarations of principles which achieved nothing, and last year would have been prepared to accept the 1971 arrangements for two years. Against this background, UK was sympathetic with the intention of the Canadian resolution, but could understand the Danish reluctance to accept further restrictions before the restrictions approved in 1970 had been tried out. For these reasons, UK would not be able to support the Canadian proposal.

25. The Polish delegate said his delegation had voted for the ban in 1969 but that it did not become effective for all countries. In 1970 his country was still in favour of a ban but now he was prepared to accept a compromise in order to find a solution to the problem.

26. The Joint Meeting of Panels 1 - 5 recessed at 1630 hrs in order that the Commission might convene in Plenary session to admit the Government of Japan to membership in Panels 3, 4 and 5 (Proc. 12).

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27. The Joint Meeting of Panels 1 - 5 reconvened at 1635 hrs. The Italian delegate joined the meeting for the first time.

28. The Spanish delegate said that he supported the point of view of the UK delegate. He pointed out that Spanish rivers contribute to the high seas salmon fisheries in the West Greenland area. His government would like to see adequate conservation measures applied. He said that Spain was not fishing for salmon now but this did not rule out the possibility of a fishery being established in the future. He hoped a compromise could be reached among the member countries on this item.

29. The Norwegian delegate reported that Norway had a fleet of 10 or 11 vessels taking 200 tons of salmon at West Greenland and that it was impossible for Norway to limit her fisheries to a larger extent than other countries exploiting the salmon stock. Therefore, he could not accept the Canadian proposal but was prepared to vote in favour of the Danish proposal.

30. The Portuguese delegate said the position of his government was the same as that of UK. He felt that there was a need to see the effects of the 1970 restriction before further restrictions were applied.

31. The Panels agreed that a vote be taken on the Canadian proposal (Comm.Doc. 71/24). The result of the vote was 3 votes for (Canada, USA and Spain), 5 votes against (USSR, Norway, Portugal, Iceland and Denmark), 7 abstentions (France, Fed. Rep. Germany, Poland, Italy, Romania, UK and Japan). The Canadian proposal was defeated.

32. A vote was then taken on the Danish proposal (Appendix II). The result was 11 votes for (Canada, Denmark, France, Norway, Portugal, Italy, Fed. Rep. Germany, Romania, Poland, UK and Japan), 3 votes against (Iceland, USSR and USA), and one abstention (Spain). The Danish proposal at Appendix II was adopted by the joint Panels.

33. Under Plenary Item 23, Measures to ensure maximum utilization of catches of regulated species in the Convention Area, the Canadian delegate introduced the Canadian proposal under this item as contained in Comm.Doc. 71/11. He also drew attention to the Polish statement regarding the use of food fish for industrial purposes (Comm.Doc. 71/23). Following comments, the Joint Panels 1 - 5, noting that a number of delegations regarded the problem to be of considerable importance

recommended

that the problem of maximum use of catches of regulated species be given serious consideration at the 1972 Annual Meeting.

34. The question of a uniform or standard log book, as part of an effective statistical scheme, an international inspection scheme and the application of a catch quota, was raised. It was pointed out that in accordance with a Commission recommendation (1970 Meeting Proceedings No. 13) STACRES had developed a proposed format for an international logbook (Redbook 1971, Part I) for consideration of the Commission. Following discussion, it was unanimously agreed that it was important and urgent to adopt a standard logbook, and the Joint Panels 1 - 5

recommended

(a) that comments on the suitability of the logbook format developed by STACRES be forwarded to the ICNAF Secretariat by 15 November 1971, and

(b) that the Working Party on International Inspection meet under Capt Cardoso to study the comments and make recommendations to the Commission at its 1972 Annual Meeting.

35. The meeting adjourned at 1730 hrs.

RESTRICTED

INTERNATIONAL COMMISSION FOR THE NORTHWEST ATLANTIC FISHERIES

Serial No. 2660
(A.a.4)

Proceedings No. 11
Appendix I

ANNUAL MEETING - JUNE 1971

Revised Canadian-USA Herring Proposals

A. Proposal for international regulation of the fishery for herring from the Georges Bank - Subarea 6 stock.

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 on Georges Bank (Div. 5Z of Subarea 5) and in Statistical Subarea 6 so that the aggregate annual catch of herring by vessels taking herring from this stock shall not exceed 150,000 metric tons per annum.

2. That Competent Authorities of each Contracting Government shall report monthly herring catch taken in Div. 5Z of Subarea 5 by persons under their jurisdiction to the Executive Secretary of the Commission not later than 7 days after the end of a monthly reporting period, and are requested to similarly report herring catch taken in Statistical Subarea 6. Contracting Governments whose vessels remain in the area for extended periods shall make special arrangements to report the catch actually taken aboard their vessels on a monthly basis. The Executive Secretary shall notify each Contracting Government of the date on which accumulative catch in Div. 5Z of Subarea 5, accumulative catch or estimated catches in Statistical Subarea 6, 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 stated in paragraph 1. Within 10 days of receipt of such notification from the Executive Secretary each Contracting Government shall prohibit the catching of herring caught in Div. 5Z of Subarea 5 by persons under its jurisdiction except as provided in paragraph 4. Contracting Governments shall endeavor to institute a similar closure in Statistical Subarea 6 at the same time, either through joint or national action.

3. That the Executive Secretary may, if, on the basis of further information, he finds that the catch for the year will equal less than 100 percent of the allowable catch stated in paragraph 1 after the closure provided in paragraph 2, inform Contracting Governments that fishing for such herring may be permitted for a further period of a stated number of days.

4. That in order to avoid impairment of fisheries conducted primarily for other species and which take small quantities of herring from the stock referred to in paragraph 1 incidentally, the Contracting Governments may permit persons under their jurisdiction to have in possession on board a vessel fishing primarily for other species subsequent to the closure referred to in paragraph 2, herring caught from the stock referred to in paragraph 1 in amounts not exceeding 2,000 kilograms.

5. That the Commission shall review the allowable catch provided in paragraph 1 at each Annual Meeting, and shall propose such changes as are necessary from time to time, taking into account such factors as fishing, natural variations in abundance, and natural variations in spawning.

C. Proposal for international regulation of the fishery for herring in Div. 5Y of Subarea 5.

1. That the Contracting Governments take appropriate action to regulate the catch of herring, *Clupea harengus* L., by persons under their jurisdiction in Div. 5Y of Subarea 5 so that the aggregate annual catch of such herring by vessels taking such herring shall not exceed 40,000 metric tons during each yearly period commencing on 1 April and ending on 31 March.

2. That Competent Authorities of each Contracting Government shall report monthly catch of herring taken in Div. 5Y of Subarea 5 by persons under their jurisdiction to the Executive Secretary of the Commission not later than 7 days

after the end of a monthly reporting period. Contracting Governments whose vessels remain in the area for extended periods shall make special arrangements to report the catch actually taken aboard their vessels on a monthly basis. The Executive Secretary shall notify each Contracting Government of the date on which accumulative catch and estimated catch of such herring in Div. 5Y of Subarea 5, the quantity of such herring 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 stated in paragraph 1. Within 10 days of receipt of such notification from the Executive Secretary each Contracting Government shall prohibit the catching of such herring in Div. 5Y of Subarea 5 by persons under its jurisdiction except as provided in paragraph 4.

3. That the Executive Secretary may, if, on the basis of further information, he finds that the catch for the year will equal less than 100 percent of the allowable catch stated in paragraph 1 after the closure provided in paragraph 2, inform Contracting Governments that fishing for such herring may be permitted for a further period of a stated number of days.

4. That in order to avoid impairment of fisheries conducted primarily for other species and which take small quantities of herring incidentally, the Contracting Governments may permit persons under their jurisdiction to have in possession on board a vessel fishing primarily for other species subsequent to the closure referred to in paragraph 2, herring in amounts not exceeding 25 percent by volume of all other fish on board caught in Div. 5Y of Subarea 5.

5. That the Commission shall review the allowable catch provided in paragraph 1 at each Annual Meeting, and shall propose such changes as are necessary from time to time, taking into account such factors as fishing, natural variations in abundance, and natural variations in spawning.

D. Proposal for international regulation of the fishery for herring in a portion of Div. 4W and in Div. 4X of Subarea 4.

1. That the Contracting Governments take appropriate action to regulate the catch of herring, *Clupea harengus* L., by persons under their jurisdiction in that portion of Div. 4W south of 44°52' north latitude and in Div. 4X of Subarea 4 so that the aggregate annual catch of such herring by vessels taking such herring shall not exceed 100,000 metric tons during each yearly period commencing 1 May and ending 30 April.

2. That Competent Authorities of each Contracting Government shall report monthly catch of herring taken in those portions of Subarea 4 referred to in paragraph 1 by persons under their jurisdiction to the Executive Secretary of the Commission not later than 7 days after the end of a monthly reporting period. Contracting Governments whose vessels remain in the area for extended periods shall make special arrangements to report the catch actually taken aboard their vessels on a monthly basis. The Executive Secretary shall notify each Contracting Government of the date on which accumulative catch and estimated catch of such herring in those portions of Subarea 4 referred to in paragraph 1, the quantity of such herring 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 stated in paragraph 1. Within 10 days of receipt of such notification from the Executive Secretary each Contracting Government shall prohibit the catching of such herring in those portions of Subarea 4 referred to in paragraph 1 by persons under its jurisdiction except as provided in paragraph 4.

3. That the Executive Secretary may, if, on the basis of further information he finds that the catch for the year will equal less than 100 percent of the allowable landings stated in paragraph 1 after the closure provided in paragraph 2, inform Contracting Governments that fishing for such herring may be permitted for a further period of a stated number of days.

4. That in order to avoid impairment of fisheries conducted primarily for other species and which take small quantities of herring incidentally, the Contracting Governments may permit persons under their jurisdiction to have in possession on board a vessel fishing primarily for other species subsequent to the closure referred to in paragraph 2, herring caught in those portions of Subarea 4 referred to in paragraph 1 in amounts not exceeding 25 percent by volume of all other fish on board caught in those portions of Subarea 4.

5. That the Commission shall review the allowable catch provided in paragraph 1 at each Annual Meeting, and shall propose such changes as are necessary from time to time, taking into account such factors as fishing, natural variations in abundance, and natural variations in spawning.

INTERNATIONAL COMMISSION FOR THE NORTHWEST ATLANTIC FISHERIES

RESTRICTED

Serial No. 2660
(A.a.4)

Proceedings No. 11
Appendix II

ANNUAL MEETING - JUNE 1971

Danish Proposal for Conservation Measures for Atlantic Salmon

Recognizing that since the measures for the conservation of Atlantic salmon proposed in 1970 did not take effect until 1971 their effect cannot yet be assessed; but

Noting with satisfaction that nevertheless the escalation of the catch of salmon in the Convention Area did not continue in 1970; and

Taking into consideration that the important data which are expected to result from the large-scale tagging experiment which is before the Commission for approval will not be available until after the 1972 meeting of the Commission;

The Commission proposes that the measures set out in numbered paragraphs 1, 2 and 3 of the 1970 proposal be continued in force for the years 1972 and 1973; subject to review within that period in the event of substantial changes in the catches of Atlantic salmon in the Convention Area or in home waters or in the fish stocks, or in the event of the entry into the fishery of states not at present participating.

INTERNATIONAL COMMISSION FOR THE NORTHWEST ATLANTIC FISHERIES

RESTRICTED

Serial No. 2661
(B.b.71)

Proceedings No. 12

ANNUAL MEETING - JUNE 1971

Report of Second Plenary Session

Wednesday, 2 June, 1630 hrs

1. The Chairman called the meeting to order with all member countries represented after having recessed the Joint Meeting of Panels 1-5 (Proc. 11). He explained that the Plenary meeting had been called to approve the recommendation of Panels 3, 4 and 5 that Japan be admitted to membership in those panels. The Plenary unanimously accepted the recommendation and welcomed the Japanese delegation as member of Panels 3, 4 and 5.

2. The Plenary adjourned at 1635 hrs.

INTERNATIONAL COMMISSION FOR THE NORTHWEST ATLANTIC FISHERIES

RESTRICTED

Serial No. 2662
(B.e.71)

Proceedings No. 13

ANNUAL MEETING - JUNE 1971

Report of Joint Meeting of Panels 4 and 5

Wednesday, 2 June, 0945 hrs
Thursday, 3 June, 1145 hrs
Friday, 4 June, 0930 hrs

1. Chairman. The Executive Secretary opened the meeting. Mr R.A. Lagarde (France) was appointed Chairman.

2. Rapporteur. Dr R.G. Halliday (Canada) was appointed Rapporteur.

3. Under Plenary Item 18, Conservation Measures and Procedures for Haddock in Subareas 4 and 5, the Chairman noted that two conservation proposals by Canada (Comm. Doc. 71/9 and 71/10) for haddock in Div. 4X and Div. 4W respectively, and one proposal by USA (Comm.Doc. 71/15) for haddock in Subarea 5, were before the meeting.

Canada introduced her proposal for further conservation measures for Div. 4X haddock (Comm.Doc. 71/9), recommending (1) that the quota for 1972 be reduced to 9,000 metric tons from 18,000 metric tons, and (2) that the closed season on the previously designated spawning area be extended to include the month of May as well as March and April. Canada justified these proposals (1) by citing the STACRES report that quotas should be reduced to considerably less than 12,000 tons, and (2) by noting that spawning continued through May.

USSR stated that the Canadian proposal was acceptable and further proposed changes in the boundaries of the closed area to exclude depths greater than 100 m or 140 m, thus allowing the prosecution of spring fisheries for argentine and silver hake. Japan stated that extension of the closed season to include May would have detrimental effects on fisheries for other species, particularly argentine, and that she wished to hear scientific evidence that this closure was necessary and that comparable results could not be achieved by alternative conservation measures. Canada stated that experience suggested that closure of groundfish fishing for those months was a very important conservation measure, particularly in controlling the problem of high incidental catches. As Canada had no scientific objections to excluding areas deeper than 140 m from the closed area, and as such an action would facilitate the argentine and silver hake fisheries, perhaps such an action would meet Japan's objections. Spain stated that she supported the Canadian proposal in full, and Poland stated that she supported the Canadian proposal as modified by the USSR. It was decided that further clarification of the proposed changes in the boundaries of the closed area was required and it was agreed that a group of scientists from interested countries should immediately discuss these changes. Further consideration of this item was postponed to await the results of such discussion.

Canada presented a proposal concerning conservation of haddock in Div. 4W (Comm.Doc. 71/10) by introduction of a catch quota of 6,000 metric tons in 1972. Subsequent to the time of submission of this proposal, STACRES had indicated that such a quota was too large to be an effective conservation measure. Canada stated that she was, therefore, prepared to alter the proposal to a quota of 4,000 metric tons which appeared to be more appropriate. The USSR stated agreement to the proposal as amended. However, the USA stated that Canadian proposals for Subarea 4 fisheries created particular difficulties for her, due to earlier USA proposals for complete closure of the Subarea 5 haddock fishery. Although the USA considered that closure of all Subarea 4 and 5 haddock fisheries was merited on the basis of the state of the stocks, institution of quotas in Subarea 4 made total closure of the Subarea 5 fishery virtually impossible to administer. The USA, therefore, wished to present a new proposal for the Subarea 5 haddock fishery. It was generally agreed that all proposals merited simultaneous consideration.

The USA proceeded to present a new proposal for the conservation of Subarea 5 haddock by (1) reduction of quota to 6,000 metric tons from 12,000 metric tons, (2) revised administrative procedures giving the Executive Secretary authority to call for closure of the fishery when he considered that catches subsequent to such

action plus reported catches equal 100% of quota, and (3) which would allow him to reopen the fishery for a stated number of days to facilitate fulfilling of the quota, (4) allowing vessels fishing primarily for other species subsequent to closure, a by-catch not exceeding 5,000 lb or 2,268 kg, or 10% by weight, of all other fish caught in Subarea 5, (5) closure of previously designated spawning areas for March, April and May and making minor alterations to the westernmost closed area to facilitate redfish and shrimp fisheries and to exempt from closed area regulations vessels making single-day trips and fishing with hooks having a gape not less than 3 cm.

The USSR stated that she could not discuss these proposals as she had not had time to consider them. However, she was prepared to discuss the original proposals in Comm.Doc. 71/15. The USSR could agree to reduction in quota to some reasonable amount based on scientific evidence, to extension of the closed season to include May, to modifications of closed area boundaries, and to exemption from closed area regulations of vessels fishing with large hooks. However, such exemption must apply to all vessels fishing in this way, not only small vessels. The USSR could not agree to allowances for incidental catches in terms of weight exemptions or as a percentage of "all other fish on board caught in Subarea 5", and proposed that allowances for by-catch should be standardized for all areas and species and that only one criterion should be used - 10% of all fish on board. Canada stated that she supported the proposals for a reduction in quota to 6,000 metric tons, to extension of the closed season, to modification of the closed areas, and to exemption of hook and line vessels from closed area provisions. The USA stated that she may be able to accept the USSR modification extending closed area exemptions to all hook and line vessels irrespective of size, but that limitation of by-catch allowance to 10% only of all fish on board was unacceptable to the USA. Such a regulation would destroy the fishery by small USA vessels of 2,000-3,000-lb capacity which have long traditions and which catch small quantities of haddock along with other species. The USA pointed out that by-catch allowances in terms of weight have been in effect for almost 20 years in connection with mesh regulations and have proved effective. Spain recorded her support for the USA proposal in full in the belief that it was necessary to protect coastal fisheries.

It was agreed that an informal working group of most directly concerned countries should meet to attempt to resolve the question of allowances for by-catches. As the group of scientists considering modifications of Div. 4X closed area boundaries had not yet reported back, it was decided to await the completion of the deliberations of both groups.

4. The meeting recessed at 1220 hrs.

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5. The meeting reconvened at 1145 hrs, Thursday, 3 June.

6. Under Plenary Item 21, Conservation measures for herring in Subareas 4 and 5, the USA, in reference to the revised herring conservation proposals which were before the meeting (Proc. 11, Appendix I), noted that the Scientific Advisers had not yet been able to provide the Commission with firm estimates of sustainable yields from the stocks in question. The USA proposed that a special meeting of STACRES be convened and that this document be referred to it for a further attempt at defining sustainable yields. It was agreed to postpone consideration of the document until after such a meeting of STACRES.

7. Further, under Plenary Item 18, Conservation measures and procedures for haddock in Subareas 4 and 5, the report of the first meeting of Joint Panels 4 and 5 was considered and several minor modifications proposed.

The report of the working group of scientists on closed area boundary regulations for Div. 4X haddock was considered. The report proposed a revised definition of the closed area as that 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

The Panels agreed that this revised definition was satisfactory.

The USA presented a proposed amendment of haddock quota regulations for Subarea 5. These regulation proposals were identical to those presented at the earlier meeting of joint panels except for two amendments devised by the working group which was set up at the earlier meeting to discuss these proposals. Amendment (1) was to paragraph 3 which would allow the Executive Secretary to reopen the fishery for a further period of a stated number of days. The phrase "such period to begin 10 days after the date of notification" being added. Amendment (2) was a deletion from the last sentence of paragraph 5 causing it to read "The provisions of this paragraph shall not apply to vessels that fish with hooks having a gape of not less than 3 cm." The Joint Panels 4 and 5

recommended

that the Commission transmit to Depositary Government the following proposals for joint action by the Contracting Governments

(a) the USA proposal for revision of the quota regulations for Subarea 5 haddock as amended (see Appendix I)
(b) the Canadian proposals for revision of Div. 4X haddock quota regulations as amended in regard to definition of closed area boundaries, and for institution of quota regulation of Div. 4W haddock, in both cases amended to include the conservation procedures described in the USA proposal for Subarea 5 haddock paragraphs 2, 3 and 4 (see Appendix II for revised Div. 4X haddock quota regulation and Appendix III for Div. 4W haddock quota regulation).

8. The Joint Panels recessed at 1210 hrs.

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9. The Joint Panels reconvened at 1130 hrs, Friday, 4 June.

10. The reports of the first meeting of Joint Panels 4 and 5, as amended, and of the second meeting, were approved.

11. Further, under Plenary Item 21, Conservation Measures for Herring in Subareas 4 and 5, as the report of the special meeting of STACRES on herring quotas was available (Redbook 1971, Part I), and as an informal meeting of delegates particularly interested in herring problems had been held to consider this report, the Chairman asked for a statement on the outcome of these activities. The USA reported that no agreement could be reached on conservation measures for herring at this time. However, because of the generally accepted view that the herring stocks are in "deplorable" condition, and as action is urgently required, the USA proposed (1) that a special meeting of the Commission to consider herring conservation measures be convened on 31 January 1972, possibly in Rome by courtesy of FAO, (2) that scientific advisers make an extraordinary effort to supply the information required to formulate sound conservation measures, (3) that herring scientists meet immediately to plan this special effort, (4) that herring scientists meet again just prior to the special January meeting of the Commission to analyze the most recent information and advise the Commission, (5) that herring scientists address themselves particularly to the following three questions: (i) What are the maximum sustainable yields from the stocks? (ii) What are reliable estimates of sustainable yields in 1972 and for as many subsequent years for which it is possible to give advice? (iii) What levels of catch would result in restoration of the stocks, giving a number of options on the speed of recovery?

The UK inquired as to whether a full Commission meeting was necessary. Should only the relevant Panels meet and come up with recommendations; the Commission could approve these, or otherwise, by postal vote. This would save non-panel members the trouble and expense of attending. The USA felt that a full meeting of the Commission was necessary as the delay involved in a postal vote would prevent conservation actions from beginning in 1972. Canada inquired whether communication by Telex was permissible under the rules of the Commission and it was noted that the rules stated that a vote could be taken by "mail or other means of communication".

Thus, Telex communications appeared to be acceptable. Canada stated that a vote on Panel proposals by Telex may prove to be fast enough to allow action in 1972 and may ensure that the required number of votes (10) for a decision would be obtained. This might not be so if a full Commission meeting was held.

As time was required to consider this question, a decision was postponed until the Plenary Session of the Commission. At the close of discussion Japan, Poland, USA, and USSR favoured holding a full Commission meeting in January. Canada and UK favoured a meeting of Panels followed by a postal or Telex vote by Commission members.

12. The meeting adjourned at 1155 hrs.

INTERNATIONAL COMMISSION FOR THE NORTHWEST ATLANTIC FISHERIES

Serial No. 2662
(A.a.4)

Proceedings No. 13
Appendix I

ANNUAL MEETING - JUNE 1971

Proposed Amendment of Haddock Quota Regulation for Subarea 5

Panel 5 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 Nineteenth Annual Meeting of the Commission (Annual Proceedings, Vol. 19, 1968-69, pages 27-28) be replaced by the following:

"1. That the Contracting Governments take appropriate action to regulate the catch of haddock, *Melanogrammus aeglefinus* (L.), by persons under their jurisdiction fishing in Subarea 5 so that the aggregate annual catch of haddock by vessels taking haddock in Subarea 5 shall not exceed 6,000 metric tons per annum.

"2. That Competent Authorities of each Contracting Government shall report bi-weekly haddock catches taken in Subarea 5 by persons under their jurisdiction to the Executive Secretary of the Commission not later than 7 days after the end of a two-week reporting period. Information of haddock by-catch taken by the vessels which do not conduct specialized fishing for haddock shall be reported to the Executive Secretary of the Commission in 700-ton increments. The Executive Secretary shall notify each Contracting Government of the date on which accumulative catch and estimated catch of haddock in Subarea 5, the quantity estimated to be taken before closure could be introduced, and the likely incidental catch stated in paragraph 1. Within 10 days of receipt of such notification from the Executive Secretary each Contracting Government shall prohibit the catching of haddock caught in Subarea 5 by persons under its jurisdiction, except as provided in paragraph 4.

"3. That the Executive Secretary may, if, on the basis of further information, he finds that the catch for the year will equal less than 100 percent of the allowable catch stated in paragraph 1 after

the closure provided in paragraph 2, inform Contracting Governments that fishing for such haddock may be permitted for a further period of a stated number of days, such period to begin 10 days after the date of notification.

"4. That in order to avoid impairment of fisheries conducted primarily 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 primarily for other species subsequent to the closure referred to in paragraph 2, haddock caught in Subarea 5 in amounts not exceeding 5,000 lb or 2,268 kg, or 10 percent by weight, of all other fish on board caught in Subarea 5.

"5. 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 each year 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
	69°00'W, 42°10'N		65°40'W, 42°00'N
			66°00'W, 42°20'N

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

"6. That the Commission shall review the allowable catch provided in paragraph 1, and the area and dates provided in paragraph 5, at each Annual Meeting, and shall propose such changes as are necessary from time to time, taking into account such factors as fishing, natural variations in abundance, and natural variations in spawning."

INTERNATIONAL COMMISSION FOR THE NORTHWEST ATLANTIC FISHERIES

Serial No. 2662
(A.a.4)

Proceedings No. 13
Appendix II

ANNUAL MEETING - JUNE 1971

Proposed Amendment of Haddock Quota Regulation

in Division 4X of Subarea 4

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 Nineteenth Annual Meeting of the Commission (Annual Proceedings, Vol. 19, 1968-69, pages 26-27) be replaced by the following:

"1. That the Contracting Governments take appropriate action to regulate the catch of haddock, *Melanogrammus aeglefinus* (L.), by persons under their jurisdiction fishing in Division 4X of Subarea 4 so that the aggregate annual landings of haddock by vessels taking haddock in Division 4X of Subarea 4 in the year 1972 shall not exceed 9,000 metric tons.

"2. That Competent Authorities of each Contracting Government shall report bi-weekly haddock catches taken in Division 4X of Subarea 4 by persons under their jurisdiction to the Executive Secretary of the Commission not later than 7 days after the end of a two-week reporting period. Information of haddock by-catch taken by the vessels which do not conduct specialized fishing for haddock shall be reported to the Executive Secretary of the Commission in 700-ton increments. The Executive Secretary shall notify each Contracting Government of the date on which accumulative catch and estimated catch of haddock in Division 4X of Subarea 4, the quantity estimated to be taken before closure could be introduced, and the likely incidental catch stated in paragraph 1. Within 10 days of receipt of such notification from the Executive Secretary each Contracting Government shall prohibit the catching of haddock caught in Division 4X of Subarea 4 by persons under its jurisdiction, except as provided in paragraph 4.

"3. That the Executive Secretary may, if, on the basis of further information, he finds that the catch for the year will equal less than 100 percent of the allowable catch stated in paragraph 1 after the closure provided in paragraph 2, inform Contracting Governments that fishing for such haddock may be permitted for a further period of a stated number of days, such period to begin 10 days after the date of notification.

"4. That in order to avoid impairment of fisheries conducted primarily 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 primarily for other species subsequent to the closure referred to in paragraph 2, haddock caught in Division 4X of Subarea 4 in amounts not exceeding 5,000 lb or 2,268 kg, or 10 percent by weight, of all other fish on board caught in Division 4X of Subarea 4.

"5. 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 1972 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

INTERNATIONAL COMMISSION FOR THE NORTHWEST ATLANTIC FISHERIES

Serial No. 2662
(A.a.4)

Proceedings No. 13
Appendix III

ANNUAL MEETING - JUNE 1971

Proposal for Haddock Quota Regulation

in Division 4W of Subarea 4

Panel 4 recommends that the Commission transmit to 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 haddock, *Melanogrammus aeglefinus* (L.), by persons under their jurisdiction fishing in Division 4W of Subarea 4 so that the aggregate annual landings of haddock by vessels taking haddock in Division 4W of Subarea 4 in the year 1972 shall not exceed 4,000 metric tons.

"2. That Competent Authorities of each Contracting Government shall report bi-weekly haddock catches taken in Division 4W of Subarea 4 by persons under their jurisdiction to the Executive Secretary of the Commission not later than 7 days after the end of a two-week reporting period. Information of haddock by-catch taken by the vessels which do not conduct specialized fishing for haddock shall be reported to the Executive Secretary of the Commission in 700-ton increments. The Executive Secretary shall notify each Contracting Government of the date on which accumulative catch and estimated catch of haddock in Division 4W of Subarea 4, 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 stated in paragraph 1. Within 10 days of receipt of such notification from the Executive Secretary each Contracting Government shall prohibit the catching of haddock caught in Division 4W of Subarea 4 by persons under its jurisdiction, except as provided in paragraph 4.

"3. That the Executive Secretary may, if, on the basis of further information, he finds that the catch for the year will equal less than 100 percent of the allowable catch stated in

paragraph 1 after the closure provided in paragraph 2, inform Contracting Governments that fishing for such haddock may be permitted for a further period of a stated number of days, such period to begin 10 days after the date of notification.

"4. That in order to avoid impairment of fisheries conducted primarily 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 primarily for other species subsequent to the closure referred to in paragraph 2, haddock caught in Division 4W of Subarea 4 in amounts not exceeding 5,000 lb or 2,268 kg, or 10 percent by weight, of all other fish on board caught in Division 4W of Subarea 4."

INTERNATIONAL COMMISSION FOR THE NORTHWEST ATLANTIC FISHERIES

RESTRICTED

Serial No. 2663
(B.b.71)

Proceedings No. 14

ANNUAL MEETING - JUNE 1971

Report of the Third Plenary Session

Thursday, 3 June, 0930 hrs

1. The Chairman, Dr A.W.H. Needler (Canada) opened the meeting with representatives of all member countries, except Romania, present.

2. Rapporteur. The Executive Secretary acted as Rapporteur.

3. The French delegate introduced the Observers from the European Economic Community who were then welcomed by the Chairman on behalf of the Commission.

4. The Plenary agreed that the herring problem (Plenary Item 21) which had been introduced in the Joint Meeting of Panels 1-5 (Proc. 11) should be referred to the upcoming meeting of Panels 4 and 5 (Proc. 13).

5. The Report of the Ceremonial Opening (Proc. 1) was presented and adopted.

6. The Report of the First Plenary Session (Proc. 8) was presented and adopted with a few editorial changes.

7. The Report of Panel 1 (Proc. 2) was presented. The delegates discussed the item concerning the Commission's representation on the proposed Joint Working Party on North Atlantic Cod. There were varying views on whether there should be open or restricted membership and whether the Commission should absorb the expenses of its members. It was agreed that the item should be referred back to STACRES for further consideration of its recommendation. The Report was adopted.

8. The Report of Panel 2 (Proc. 3) was presented. The Chairman of Panel 2 drew attention to the request of the Polish, Portuguese and Spanish delegates for a delay in the full implementation of the new mesh size due to technical difficulties. The Report was adopted with the Plenary agreeing to the delays requested.

9. The Report of STACREM (Proc. 9) was presented and approved with minor editorial changes.

10. The Report of Joint Panels 1-5 (Proc. 11) was presented. At the request of the delegates who had contributed to the discussion on Plenary Item 17, Conservation of Salmon, the Plenary agreed that Section 18 of the Report should be enlarged to reflect the discussion. The Report was held for presentation in amended form at a later Plenary session.

11. The Report of the Second Plenary Session (Proc. 12) was presented and approved.

12. The Report of the Working Party on International Inspection (Appendix I) was presented by its Chairman, Captain Cardoso (Portugal) who noted that Portugal was ready to begin inspection on a reciprocal basis. The Danish delegate believed that there was a need for member countries to know exactly when each other's vessels would be ready to accept inspection even though the scheme should become effective 1 July 1971.

The Plenary

recommended

that member countries should advise the Secretariat, officially, when their necessary legislation is in effect and when it is prepared to inspect and accept inspection subject to the conditions of the Commission's joint inspection scheme.

It was further

recommended

that such information would be circulated immediately to all member countries from the Secretariat.

The Report was adopted.

13. Under Plenary Item 24, Report of the Third Meeting of ICES/ICNAF/IOC Coordinating Group for North Atlantic Oceanography, the Executive Secretary drew attention to Comm.Doc. 71/2. He pointed out that the Group was set up to prevent overlap in programming and to exchange information only. The Report was noted by the Plenary.

14. The Report of Panel 4 (Proc. 5) was presented and adopted.

15. The Plenary adjourned at 1100 hrs.

INTERNATIONAL COMMISSION FOR THE NORTHWEST ATLANTIC FISHERIES

RESTRICTED

Serial No. 2661
(B.b.71)

Proceedings No. 12

ANNUAL MEETING - JUNE 1971

Report of Second Plenary Session

Wednesday, 2 June, 1630 hrs

1. The Chairman called the meeting to order with all member countries represented after having recessed the Joint Meeting of Panels 1-5 (Proc. 11). He explained that the Plenary meeting had been called to approve the recommendation of Panels 3, 4 and 5 that Japan be admitted to membership in those panels. The Plenary unanimously accepted the recommendation and welcomed the Japanese delegation as member of Panels 3, 4 and 5.

2. The Plenary adjourned at 1635 hrs.

INTERNATIONAL COMMISSION FOR THE NORTHWEST ATLANTIC FISHERIES

RESTRICTED

Serial No. 2663
(B.g.1)

Proceedings No. 14
Appendix I

ANNUAL MEETING - JUNE 1971

Report of Meeting of Working Party on International Inspection

Monday, 31 May, 0930 hrs

1. The Chairman of the Commission requested Captain Cardoso (Portugal) to chair a working party of representatives of member nations to meet and consider any practical problems or other considerations which may have arisen since the 1970 Annual Meeting.

2. Mr J.A. Holston (USA) was requested to act as Rapporteur.

3. Representatives were present from Canada, France, Fed. Rep. Germany, Japan, Norway, Portugal, Spain, UK, USSR, and USA.

4. The Chairman of the Working Group asked for confirmation of the state of readiness on the part of each nation interested in participating in the international inspection scheme. Confirmation statements (in summary) follow:

i) Portugal: Will not be able to participate fully on 1 July 1971. Fleet will be prepared to accept inspection. Will have one (1) inspector on the hospital ship *Gil Eannes* but inspection activities secondary to vessel's fleet support and medical responsibilities.

ii) UK: Ships will be prepared to accept inspection on or soon after 1 July 1971. Will probably not inspect others.

iii) USSR: Will be prepared to participate fully beginning 1 July 1971, with proper recognition of previously accepted reservations. Expressed regret that other nations, previously interested, now are not fully prepared. Expressed regret also that other nations have not yet initiated inspection of own nationals. Stated that status of resources required inspection. Will not be receptive to inspectors from nations not ready to be inspected.

iv) Norway: Fleet prepared to receive inspectors. Will probably not inspect.

v) France: Ships prepared to receive inspectors. Inspection veasel (French Navy) ready. Will participate only on reciprocal basis.

vi) Japan: Ships prepared to receive inspectors. Will embark inspectors on commercial Japanese trawlers between July 1971 and March 1972. Acceptance of inspection by foreign nationals now being made condition for licensing of Japanese vessels fishing in the Convention Area.

vii) Spain: Fleet prepared to receive inspection by foreign nationals on a reciprocal basis. Two inspectors will be on board commercial trawlers from time to time.

viii) Canada: Prepared to accept inspection, contingent upon domestic regulations having been finalized. Will initiate reciprocal inspections later than 1 July 1971, probably in September or October 1971.

ix) USA: Expects passage of legislation requiring acceptance by USA nationals of inspection by foreign inspectors by 1 July 1971. Are assured by our industry advisers that USA vessels will voluntarily accept inspection by foreign nationals on and after 1 July 1971. In the unlikely event of a refusal, the USA requests that no citation be issued but would appreciate receiving information on the a) name of the vessel, and b) position of vessel.

x) Germany: Expects passage of legislation requiring acceptance by German nationals of foreign inspectors by end of 1971, only on a reciprocal basis. Administrative measures for inspection will be ready on 1 January 1972.

5. Chairman asked the Executive Secretary, L.R. Day, for a review of the responses of several Contracting Governments to the provisions of Section 9 of the Scheme, informing the Commission of arrangements each is making as to

a) vessels designated as inspection vessels,
b) names of personnel designated as inspection officers.

The Executive Secretary reported receiving replies from the Fed. Rep. Germany, Portugal, Spain, UK, USSR, Japan and USA.

Confirmatory statements (in summary) follow:

i) Norway: Will have no inspection vessels in the Convention Area this year.
ii) Japan: Will have no patrol vessel in Convention Area, but three inspectors, one at a time, will be dispatched on board commercial trawlers from July to March of next year.
iii) Germany: Legislation has been delayed by need for internal coordination. Expect passage by autumn. No information is, therefore, available on German participation.
iv) USSR: Will maintain four inspection vessels and twelve authorized inspection individuals, available during the year.
v) Portugal: One authorized inspector will be stationed aboard the Hospital Ship, *Gil Eannes*, and will perform inspections. Such activities will be secondary to normal hospital-ship activities.
vi) Spain: Will embark two authorized inspectors aboard commercial vessels once or twice during the year. Inspectors will serve for one month.
vii) USA: Three Coast Guard vessels will be available in the Convention Area during the year 1 July 1971 to 30 June 1972. A total of 14 inspecting officers (8 Coast Guard officers and 6 National Marine Fisheries Service officers). (Subsequent discussions yielded information that only one inspecting vessel would be on patrol at any particular time and that at most, only two inspecting officers would be aboard.)
viii) UK: Fishery inspection carried out by Royal Navy during regular patrols where UK fishing vessels operating. Inspection not likely in ICNAF area during this year.

6. In response to a request as to amount of previous notice required for submission of substitutions of inspection vessels, and personnel, discussion elicited understanding that lists are necessary for ICNAF and national coordination. Therefore, short lead-time only deemed necessary. Such information, however, should be received by ICNAF Secretariat and Member Governments before substitute vessel or personnel are actually in use.

7. In response to question on possibility of over-inspection, Chairman strongly suggested inspection be initiated on prudent modest basis to gain acceptance by fishermen.

8. Pennant: Specifications as to size and color. (Proceedings No. 15, Appendix IIIA, 1970). After much discussion, it was determined that the colors (blue and yellow) will conform as to shades in present usage in the International Code of Signals. Size of pennant will conform to size of vessel on which used, as set forth in International Code of Signals. Overall and internal proportions of pennant will conform to those used in the first substitute pennant of the International Code of Signals. Soviet Union advised their pennants were already available. Subsequent discussion led to agreement that all nations would furnish their own flags.

9. Identification Card. Executive Secretary introduced a sample identification card format arrived at during 1970 meeting. It was determined that each country would furnish its inspection officers with an identification patterned after that set forth in Proceedings No. 15, Appendix IIIb, 1970. Each card will be inscribed in two languages: English on one side, and the language of the inspector on the other.

10. Report of Inspection. Executive Secretary distributed a sample Inspection Report Form, based on Proceedings No. 15, Appendix IIIC and IIIE, 1970. It was suggested that only Items 1 through 6 need be filled out in block letters, the remainder to be filled out in script. It was further noted that a minimum of four copies of each inspection report would be required: one each to Master of vessel, to the Flag country, to the Executive Secretary ICNAF, and to inspecting officer. Each country will prepare its own Inspection Report Forms, based on distributed sample, as amended in current session (Annex I). Report will be filled out in language of inspecting officer, except comments by Master and statements of witnesses, if any.

11. Identification Marks. Executive Secretary distributed an impressed lead seal of the sort which could be used to mark a trawl net or part of trawl net or chafer found by the inspecting officer to be in violation of Commission chafer or mesh regulations. It was noted that this, or a similar seal, when being used by each country's inspectors should be identified with (1) ICNAF and country of inspector, and (2) a serial number. The number appearing on the seal must be noted in Item 11 of the Report of Inspection. It was further noted that a tag may also be affixed, in addition to the seal, containing the following minimal information:

(1) vessel name
(2) vessel registration or license number
(3) number of net (in order of inspection)
(4) date
(5) inspector's name
(6) inspector's native country.

It was also noted that seal, or tag and seal, if photographed, should appear in one photograph, a copy of which should be included in report to Flag State, as required in Item 12, Proceedings No. 15, Appendix I, 1970. It was emphasized that nets and chafers would be sealed only for violations of mesh requirements for species under regulation or of chafer regulations. Discussion elicited clear agreement that signature of Master on inspection report form is not necessarily equivalent to a confession of guilt, but merely attests to the fact of the Inspecting Officer's actions. Master's remarks, above his signature may, in fact, negate or deny statements of the inspecting officer.

12. Questionnaire. Executive Secretary distributed copy of Questionnaire, formulated after Proceedings No. 15, Appendix IIIF, 1970. In discussion, Item 3 was amended with the addition of the word "and", to read ".....the nets, the catch and the documents.....". In further discussion, Item 8 was re-drafted to read, "Are you fishing for a non-regulated species?" It was

recommended

that, prior to adjournment of the Commission, each non-English-speaking participant nation submit, to the Executive Secretary, the several items contained in the amended Questionnaire (Annex II), translated into the pertinent national language.

The Executive Secretary was requested to put the questionnaires, in each of the several languages, into book form, for distribution to appropriate supervisory inspecting officers.

13. Future Meetings. Chairman Cardoso extended an invitation for up to three representatives from each ICNAF member nation which are not members of NEAFC, to attend the meeting on practical problems in International Control to be held in Portugal in late March or early April 1972. Chairman Cardoso will advise when meeting arrangements are firmed up. It was

agreed to recommend

to the Plenary

that the present Working Group be made into a Standing Committee on International Control (STACTIC).

The Executive Secretary will provide in the 1972 Annual Meeting Agenda, an opportunity for that Group or Committee to meet and discuss the problems encountered during the intervening year to further develop inspection methodology.

14. The meeting adjourned at 1300 hrs.

International Commission for the Northwest Atlantic Fisheries – Scheme of Joint Enforcement

Report of Inspection

(Items 1-6 to be filled in block letters)

AUTHORIZED INSPECTOR

1. Name ..... Nationality .....
2. Name and identifying letters and/or number of ship carrying him .....

INFORMATION ON VESSEL INVOLVED

3. Nationality .....
4. Vessel's name and registration .....
5. Master's name .....
6. Owner's name and address .....
7. a) Position as determined by inspector at ..... GMT, latitude ..... longitude .....
   b) Position as determined by fishing vessel's master at ..... GMT, latitude ..... longitude .....

DATE AND TIMES THE INSPECTION COMMENCED AND FINISHED

8. a) Date ..... b) Time arrived on board ..... c) Time of departure .....

FACTS RESULTING FROM INSPECTION

			1st Net	2nd Net	3rd Net	4th Net	5th Net
9.	a)	Type of net (trawl net, seine net, etc.)					
	b)	Material (chemical category, if possible)					
	c)	Single or double twine					
	d)	Average mesh size of each net measured					
	e)	On or below deck					
10.	a)	Type of topside chafing gear inspected Remarks					
	b)	Average mesh size of topside chafing gear measured					

NET INSPECTIONS – SAMPLES OF 20 MESHES OF THE CODEND MEASURED IN MILLIMETRES

A) Codend

	Width (mesh size)																			Average Width	Legal Size
1st Net																					
2nd "																					
3rd "																					
4th "																					
5th "																					

B) Chafer

	Width (mesh size)																			Average Width	Legal Size
1st Net																					
2nd "																					
3rd "																					
4th "																					
5th "																					

11. Statements showing to which nets and chafing gear, if any, identification marks were attached by inspecting officer. .....
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12. Statements of photographs taken with description of subjects (photographs to be attached to copy of report submitted to flag state). .....
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13. Result of inspection of fish observed on board .....
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a) List of species taken in last tow .....
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b) Approximate weight or percentage of each .....

14. **Comments and/or observations by inspector** .....

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15. **Statements by witness(es)** .....

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Signature of Witness(es) .....

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Signature of Authorized Inspector .....

16. **Comments and/or observations by the master of the vessel** .....

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17. **Signature of the Master** .....

(He should be the last to sign. All other people to sign in his presence.)

International Commission for the Northwest Atlantic Fisheries – Scheme of Joint Enforcement

Questionnaire from Inspector to Skipper

1. I am an inspector under ICNAF. Here is my identity card. I would like to inspect your nets and catch.
2. Who is the Master of this vessel?
3. I require your collaboration with the examination of the nets, the catch documents (nationality paper/fishing log book). If you do not give your collaboration as I have requested, I will report it to your flag state.
4. Please check that the time is . . . . . GMT.
5. Please show me the documents establishing the nationality of your vessel and fishing log books, if any.
6. Please give me your name.
7. Please write down the name and address of the owners of your vessel.
8. Are you fishing for non-regulated species?
9. I am recording your position as . . . . .° lat. . . . . ° long. at . . . . . GMT. Do you agree?
10. I agree (Yes).
11. I do not agree (No).
12. Would you like to check your position with my instruments on board the inspection ship?
13. Do you now agree your position? If not, you should write your estimated position in Section 7(b) of the Report Form.
14. Are you aware that you are fishing within a closed area?
15. Where are a) your working spaces?
    b) your fish holds?
16. a) Do you use topside chafing gear? b) If so, what type? c) Please write it down.
17. Please switch on these lights.
18. I wish to measure that net.
19. Show me the other nets you have on board.
20. Show me your net gauge, if any.
21. Ask your men to hold that net so that I can measure it.
22. I have inspected . . . . . meshes in this net.
23. See that I have recorded accurately on the form the width of the meshes I have measured.
24. I have found that the average width of the meshes I have measured in that net is . . . . . mm. This is below the minimum mesh size for this subarea and will be reported to your flag state.
25. I have found illegal net attachments. This will be reported to your flag state.
26. I shall now affix the identification mark to this net/attachment/which is to be surrendered to a fisheries inspector of your flag state at his demand.
27. I wish to inspect your catch. Have you finished sorting the fish?
28. Will you please lay out those fish.
29. I have found no infringement of the regulations and I will so report to your flag state.
30. Please certify the photographs listed in the report, by adding the date and signature.
31. Do you have any witnesses who wish to make observations? If so, they may do so in their own language in Section 15 of the report form.
32. Do you wish to make any comments and/or observations concerning this inspection? If so, please do so in your own language in Section 16 of the report form on which I have set out my findings.
33. Please sign the report in Section 17.
34. I am leaving. Please check that the time is . . . . . GMT.
35. Thank you – Bon Voyage.

INTERNATIONAL COMMISSION FOR THE NORTHWEST ATLANTIC FISHERIES

RESTRICTED

Serial No. 2664
(B.c.71)

Proceedings No. 15

ANNUAL MEETING - JUNE 1971

Report of Meeting of STACFAD

Thursday, 3 June, 1430 hrs

F&A Item 1 and 2 — Opening and Membership. The Chairman, Mr R. Green (USA) opened the meeting with the following nominees from Canada, Denmark, USSR, UK and USA making up the Committee:

Canada	- Dr A. W. H. Needler
Denmark	- Mr K. Løkkegaard
USSR	- Mr A. Volkov
UK	- Mr A. J. Aglen
USA	- Mr W. L. Sullivan, Jr.

The Committee received the resignation of Mr Green with regret and elected Mr W. L. Sullivan, Jr. (USA) as Chairman.

The Committee, agreeing that membership in STACFAD should be shared among the member countries,

recommends

that, generally, one member of STACFAD be replaced each year.

F&A Item 4 — Agenda. The agenda was adopted with the addition of Item 15 (b) Circulation of Documents and 15 (c) Terms of Reference for the New Standing Committee on International Control (STACTIC). It was agreed that the question of financing the international salmon tagging experiment should be taken up when Items 8, Budget Estimate, and 9, Budget Forecast, were considered.

F&A Item 5 — Panel Membership. The Committee noted the approval of the recommendation of Panels 3, 4 and 5 by the Second Plenary that Japan be accepted into membership in each of the three panels. It was noted that the Fed. Rep. Germany had been accepted as a member of Panel 5 and recommended Commission approval.

F&A Item 6 — Auditor's Report. The Executive Secretary reported that the Auditor's Report covering the Commission's accounts to 30 June 1970 had been distributed in mid-October to each Contracting Government. There were no comments. STACFAD

recommends

that the Auditor's Report for 1969/70 be adopted.

F&A Item 7 — Administrative Report and Financial Statement. The Executive Secretary reviewed the Administrative Report for the year ending 30 June 1971 (estimated from 30 April 1971) (Comm.Doc..71/4). The Executive Secretary reported that efforts to fill the position of Assistant Executive Secretary with someone from the European member countries had not been successful and he proposed to give consideration to the North American applicants. STACFAD

recommends

that the Executive Secretary accelerate his efforts to fill the position of Assistant Executive Secretary.

The Committee examined Financial Statements 1, 2 and 3 with the Appendix in detail. It was noted that total obligations during the year were estimated at $101,411 which was $23,089 less than the amount appropriated from member governments and other funds available to the Commission, due mainly to the saving of the salary of an Assistant Executive Secretary in 1970/71. The Working Capital Fund stood at $51,799 and the Miscellaneous Fund at $15,225. STACFAD

recommended

that the Administrative Report with financial statements for 1970/71 be adopted.

F&A Item 8

Budget 1971/72. The Committee agreed that it should consider, first the Item 15 (a) Size of Commission's Document Paper along with Item 15 (b) Circulation of Documents and then consider Item 10 Status of the Working Capital Fund, as background information for consideration of the budget for 1971/72.

The Executive Secretary presented the results of a study which compared the relative costs of producing the 1970 and 1971 annual meeting documents on 8 1/2" x 11" paper and 8 1/2" x 14" paper. The study showed that the extra cost of using 8 1/2" x 11" paper in 1970 would have been about $1,500 and in 1971 about $3,000. It was agreed that the Commission's document paper size should remain 8 1/2" x 14".

The Committee considered the UK proposal for limiting the circulation of scientific documents for the convenience of Commissioners and others attending meetings. While it was recognized that the proposal might secure some economy in the use of paper, the Executive Secretary pointed out that there is a wide demand for a complete set of ICNAF meeting papers and a large mailing list. The procedure suggested might not be practicable and it was doubtful whether it would lead to much saving in paper. It was, however, suggested that the real need of scientists might be adequately served if each scientific contribution contained as abstract composed by the author and, if in the first place, only the abstract were circulated, leaving those who wanted to see the paper in extenso to ask for it. The Committee agreed that this idea was worth pursuing but that it needed wider consultation, particularly among scientists. In the meantime, it accepted the proposal in the UK paper that reports of research by member countries, other summaries prepared by the Chairmen of Panel Advisers, together with the reports of meetings of Panel Advisers should be presented on paper of a distinctive colour.

The Committee, noting that the Working Capital Fund was $51,799 agreed that it should be reduced. It discussed the possibility of providing some financial assistance to the proposed international salmon tagging experiment at West Greenland in 1972 which STACRES had estimated would require about £20,000 or about $48,000 to cover the costs of the experiment apart from the research vessels, fishing gear costs and scientists' salaries (Comm.Doc. 71/14). Some members felt that it was unfair to use the contributions of all member countries to finance the special projects of some member countries. Others felt that the proposal, if accepted by the Plenary, would then be a Commission project and as such, could qualify for financial assistance from the Commission. It was pointed out that some interested countries would be prepared to contribute financially directly to the proposal.

Finally, the Committee, unable to reach a consensus on financial assistance from the Working Capital Fund to the salmon tagging experiment, and noting that the Working Capital Fund should be reduced,

recommended

i) that $15,000 be appropriated from the WCF and transferred to the Miscellaneous Fund immediately in accordance with Financial Regulation 4.7 to reduce the 1971/72 budget,

ii) that $5,000 be appropriated from the WCF to support the 1971 Environmental Symposium.

The Committee then noted that, due to personnel changes in the Secretariat since the budget estimate for 1970/71 (F&A Agenda, Appendix I), the estimate for personal services was now reduced from $92,000 to $88,500. The Communications item increased from $4,000 to $4,500 due to increase in the postage rate and a necessary $1,000 increase in the Other Contractual Services item, raised it to $6,000. The Committee noted that the total amount to be appropriated for ordinary expenditures would be $136,000 which reduced by the amount in the Miscellaneous Fund ($15,225) plus $15,000 from the Working Capital Fund would require that $105,775 be appropriated from the member countries to meet the 1971/72 budget (Appendix I). STACFAD

recommended

i) that the ordinary expenditures of the Commission for the fiscal year 1971/72 be $136,000

ii) that, after about $30,225 is used from the Miscellaneous Fund, these expenditures be met by appropriating approximately $105,775 from member governments.

F&A Item 9 — Budget Forecast 1972/73. The Committee considered the Budget Forecast for 1972/73 as presented in Appendix II to the STACFAD agenda. The Committee agreed that $139,000 should be appropriated to cover ordinary expenditures (Appendix II). STACFAD

recommended

that the Commission give consideration at the 1972 Annual Meeting to authorize appropriations of $139,000 for the ordinary expenses of the Commission and $5,000 from the Working Capital Fund for expenses in connection with the ICES/ICNAF/IBP Seal Symposium, August 1972.

F&A Item 11 — Increase in Superannuation Credits for Secretariat Staff. The Executive Secretary referred to paragraph 14 of the Administrative Report (Comm.Doc. 71/4) which detailed the proposal by the International Fisheries Commission's Pension Society to adjust pension credits for services prior to 1 October 1966 at a cost of $1,136.05 to the Commission. STACFAD, having determined that this amount had been included in the 1971/72 budget,

recommended

that an amount of $1,136.05 be approved to adjust pension credits for services by the Commission's Secretariat personnel prior to 1 October 1966.

F&A Item 12 — Publications. There were no publication matters to discuss. The Committee noted the report of the Executive Secretary regarding publications in the Administrative Report (Comm.Doc. 71/4, paragraph 6).

F&A Item 13 — Billing date for 1971/72. STACFAD

recommended

that the Contracting Governments be billed by the Commission for payments due, under the 1971/72 administrative budget, in accordance with Article XI of the Convention, on 16 August 1971.

F&A Item 14 — Time and Place of 1972, 1973 and 1974 Annual Meetings. STACFAD

recommended

i) that the 1972 Annual Meeting be held in the State Department in Washington, D.C. at a date to be fixed by the Commission in Plenary session at the 1971 meeting.

ii) that the 1973 Annual Meeting be held in Copenhagen, Denmark at a date to be agreed later.

iii) that the 1974 Annual Meeting be held at the Commission headquarters at a date to be agreed, if no other invitation is extended.

F&A Item 15 Other Business. There was no other business.

F&A Item 16 Election of Chairman. Mr Wm. Sullivan, Jr. (USA) was unanimously elected Chairman of the Committee for the year 1971/72.

INTERNATIONAL COMMISSION FOR THE NORTHWEST ATLANTIC FISHERIES

Serial No. 2664
(B.c.71)

Proceedings No. 15
Appendix I

ANNUAL MEETING - JUNE 1971

1971/72 Expenditures to be Covered by Appropriations from Contracting Governments and from Other Sources

		Proposed estimates 1971/72
1.	Personal Services	
	(a) Salaries	71,000
	(b) Superannuation	4,000
	(c) Additional help	4,000
	(d) Group medical and insurance plans	500
	(e) Contingencies	5,000
	(f) Forecast increase	4,000
2.	Travel	6,500
3.	Transportation	500
4.	Communications	4,500
5.	Publications	17,500
6.	Other Contractual Services	6,000
7.	Materials and Supplies	4,000
8.	Equipment	1,000
9.	Annual Meeting	6,000
10.	Contingencies	1,000
	Total Ordinary Expenditures	$136,000
	Special appropriation from Working Capital Fund	
	(i) 1971 Environmental Symposium	5,000
	(ii) Transfer to Miscellaneous Fund	15,000

INTERNATIONAL COMMISSION FOR THE NORTHWEST ATLANTIC FISHERIES

Serial No. 2664
(B.c.71)

Proceedings No. 15
Appendix II

ANNUAL MEETING - JUNE 1971

Preliminary Budget Forecast, 1972/73

		Forecast estimate 1972/73
1.	Personal Services	
	(a) Salaries	$ 73,500
	(b) Superannuation	2,500
	(c) Additional help	2,000
	(d) Group medical and insurance plans	500
	(e) Contingencies	6,500
	(f) Forecast increases	4,000
2.	Travel	6,500
3.	Transportation	500
4.	Communications	4,500
5.	Publications	18,000
6.	Other Contractual Services	6,000
7.	Materials and Supplies	4,000
8.	Equipment	1,000
9.	Annual Meeting	6,000
10.	Contingencies	3,500
	Total Ordinary Expenditures	$139,000
	Special appropriation Working Capital Fund	
	(i) Seal Symposium	5,000

RESTRICTED

INTERNATIONAL COMMISSION FOR THE NORTHWEST ATLANTIC FISHERIES

Serial No. 2665
(B.b.71)

Proceedings No. 16

ANNUAL MEETING - JUNE 1971

Report of the Fourth Plenary Session

Friday, 4 June, 1430 hrs

1. The Chairman, Dr A.W.H. Needler (Canada) opened the meeting. Representatives of all member countries, except Romania, with observers and guests, were present.

2. The Report of Panel 3 (Proc. 4) was introduced by the Commission's Chairman and adopted without change.

3. The Report of Panel 5 (Proc. 6), which proposed changes in catch quota (Proc. 6, Appendix II) and in mesh size (Proc. 6, Appendix III) for yellowtail flounder, was introduced by the Panel's Chairman, Prof. F. Chrzan (Poland). The Report with proposals was adopted.

4. The Report of Joint Panels 4 and 5 (Proc. 13) was presented by the Panels' Chairman, Mr R. Lagarde (France). The Report dealt with proposals for the revision of conservation measures for the haddock fisheries in Subarea 5 (Proc. 13, Appendix I), in Div. 4X of Subarea 4 (Proc. 13, Appendix II), the introduction of conservation measures for the haddock fisheries in Div. 4W of Subarea 4 (Proc. 13, Appendix III) and proposals for a special meeting of the Commission beginning 31 January 1972 to consider herring conservation measures based on advice from the herring scientists concerning three specific questions about the herring stocks. The Chairman of Assessments Subcommittee of STACRES, Mr R.C. Hennemuth (USA), reported that the mid-term meeting of the Assessments Subcommittee would be held beginning 24 January 1972 for 6 days prior to the Commission's special meeting and the working group of herring assessment scientists would prepare its report on the analysis of all available data on the herring stocks for presentation to the special meeting. Meanwhile, detailed planning and allocation of work items would be completed as soon as possible by correspondence. The necessity for the 1970 catch and effort statistics, and age composition data, as well as the 1971 catch statistics to be available at the January meeting was emphasized. The Report with proposals was adopted.

5. The Report of Panel A(Seals) (Proc. 7) was then considered. The Plenary noted that the Panel wished to examine the long-term effects on the seal population of reducing the catch to the level of the sustainable yield in more than one step, before recommending exact quotas and adopted a proposal by Mr Lund (Norway) that Mr Sv. Aa. Horsted (Denmark) convene a meeting of seal scientists at the time of the 1971 ICES meeting. The Plenary also noted that a quota for the 1972 seal catch by vessels would be established by agreement late in the year between Canada, Denmark and Norway. The Plenary, in accepting the Report, adopted the recommendation of the Panel that the 1971 seal regulations, other than the quota, should remain in force for 1972 without alterations.

6. The Report of the *ad hoc* Working Group on ICNAF Fisheries (Appendix I; also Comm.Doc. 71/21) was introduced by the Commission's Chairman. The Plenary noted that the Working Group had considered a US-Canadian study using computer facilities of how certain concepts of quota allocation might apply to a broad range of stocks in various parts of the Convention Area. It further noted that the Plenary at its Third Session (Proc. 14) had adopted a recommendation from STACREM (Proc. 9) that the "sliding scale" concept be added to those guidelines developed by STACREM at its 1970 mid-term meeting (1970 ICNAF Meeting Proc. 8, Appendix II) for the negotiation of catch limitation schemes. The Plenary took note of the Report.

7. The Report of the *ad hoc* Meeting on Quota Allocation in Subarea 5 (Appendix II; also Comm.Doc. 71/21, Appendix I), which examined a US informal proposal for allocation of a haddock quota in Subarea 5 when the resource has recovered to former levels of abundance, was noted by the Plenary.

8. The Chairman then called for reconsideration of the Report of Joint Panels 1-5 (Proc. 11) with its revised version of Section 18 on the conservation of Atlantic salmon. The revised Report with its proposals was adopted and the Plenary

agreed to recommend

the adoption by Member Governments of the Danish conservation proposal for Atlantic salmon for 1972 and 1973 subject to review (Proc. 11, Appendix II) and the proposal to delete the sentence on alternative mesh measuring gauges from paragraph 1 of the international fishery regulations for all five Subareas (Proc. 11, Section 16).

9. The Report of STACRES (Proc. 10 with two addenda) was presented by its Chairman, Dr A.S. Bogdanov (USSR), who drew attention to the results of the special meeting of STACRES (Redbook 1971, Part I) which was requested by the meeting of Joint Panels 4 and 5 (Proc. 13, Section 6). He pointed out that the results were based on inadequate data at hand. Further data will be collected and analyzed for consideration at the proposed January meeting of herring scientists. The Report of STACRES with addenda was adopted.

10. The Report of STACFAD (Proc. 15) was presented by the Chairman, Mr Wm. L. Sullivan, Jr (USA), who drew attention to the following items of importance which were not included in the Report:

Under STACFAD Agenda Item 7, Financial Statement for 1970/71, he reported that, as at 3 June 1971, the Government of Romania had an outstanding balance of $3,648.69 owing against its billing of $6,381.70 for the 1970/71 year.

Under STACFAD Agenda Item 8, Budget Estimate for 1971/72, STACFAD

agreed to recommend

that the travel and accommodation of the members from the ICNAF member countries to the proposed Joint ICES/ICNAF Working Group on North Atlantic Cod Stocks be at national expense.

Under STACFAD Agenda Item 13, Date of Billing for 1971/72, STACFAD

agreed to recommend

that the Commission change the amount of the main annual contribution of each Contracting Government which, in accordance with Convention Article XI, 3c, is the equivalent of 500 United States dollars, from 526.66 Canadian dollars, as established at the 1952 Annual Meeting of the Commission, to one based on the current rate of exchange.

With regard to the adoption by the Plenary (Proc. 14) of the recommendation of the Working Party on International Inspection that a Standing Committee on International Control (STACTIC) be established (Proc. 14, Appendix I), STACFAD

agreed to recommend

to the Plenary

that Captain Cardoso (Portugal) or his nominee, the Chairman of STACFAD or his nominee, and the Executive Secretary draft terms of reference for STACTIC for approval of the Commission at the 1972 Annual Meeting.

Under STACFAD Agenda Item 12, Publications, the Plenary considered further the UK proposal for limiting the circulation of scientific documents for the convenience of Commissioners and others attending meetings. While noting the STACFAD proposals for improvement in this matter, some delegates were not convinced that still other improvements could not be instituted. The matter would be discussed again at a later Annual Meeting. In addition, the Plenary heard a request that Member Countries ensure that proposals, in accordance with Commission Rules of Procedure 5.1 and Panels Rules of Procedure 4.1, should be circulated to Commissioners with a memorandum 60 days in advance of meetings and that substantive changes in proposals should not be presented at the time of the meeting.

Under STACFAD Agenda Item 14, Time and Place of Annual Meetings, the Plenary agreed that the 1972 Annual Meeting should be held in the State Department, Washington, D.C. between 25 May and 2 June inclusive and that the Scientific meetings should run

from 18 May to 24 May at the same site.

The Plenary then considered the matter of financing the 1972 West Greenland salmon tagging experiment (Redbook 1971, Part I; also Comm.Doc. 71/14). The Plenary

Noting that STACFAD was unable to reach a consensus regarding funding from the Working Capital Fund and
Recognizing the need for early financial commitments to ensure the project,
Adopted the proposed expenditure of £20,000 (about $48,000) for the Atlantic salmon tagging experiment in 1972 as a Special Projects Budget under Article XI of the Convention and
Requests Contracting Governments to contribute to this Budget in adequate amounts as each may consider, it being understood that

1) Expenditures may not be undertaken under this budget in excess of contributions received,
2) Funds contributed will remain available for the experiment until actually expended or no longer needed, and
3) Some funds will be contributed to the expenditures by non-Contracting Governments which are members of ICES, through other channels.

The Report of STACFAD, together with the above additions, was adopted.

11. The Report of the Third Plenary (Proc. 14) was adopted.

12. Under Plenary Item 25, Reports of Meetings, the Chairman drew attention to the Report of the 1971 NEAFC Meeting (Comm.Doc. 71/7), the Report of ICES (Res.Doc. 71/17) and the Report of IOC (Comm.Doc. 71/19). The remarks of the Observer from FAO, Fisheries Department, Mr J. Gulland, and of the Observer from EEC are recorded as Appendices III and IV respectively.

13. Under Plenary Item 30, Election of Chairman and Vice-Chairman, Mr K. Løkkegaard (Denmark) was unanimously elected to succeed Dr A.W.H. Needler (Canada) as Chairman of the Commission and Mr R. Lagarde (France) was unanimously elected Vice-Chairman of the Commission for the two ensuing years.

14. Under Plenary Item 32, Press Statement, the Plenary agreed that a press statement should be left to the Committee on Publicity to prepare for distribution as soon after the meeting as possible.

15. Under Plenary Item 33, Other Business, Mr J. Aglen (UK) paid tribute to the long and invaluable service to Canadian and international fisheries by Dr A.W.H. Needler, recently retired as Chairman of the Commission and as Canadian Deputy Minister of Fisheries and Forestry; Mr K. Løkkegaard (Denmark), the incoming Chairman, paid tribute to Mr J. Aglen, Fisheries Secretary for Scotland, and Dr G. Meseck, Director of Fisheries for the Fed. Rep. Germany, both of whom would be retiring within the year. Mr O. Lund (Norway) complimented the Secretariat on the efficient running of the meeting.

16. There being no other business, the Chairman adjourned the 21st Annual Meeting of the Commission at 1745 hrs.

INTERNATIONAL COMMISSION FOR THE NORTHWEST ATLANTIC FISHERIES

RESTRICTED

Serial No. 2643
(B.g.21)

Proceedings No. 16
Appendix I
(also ICNAF Comm.Doc. 71/21 Revised)

ANNUAL MEETING - JUNE 1971

Report of the *ad hoc* Working Group on ICNAF Fisheries 24-26 May 1971

The *ad hoc* Working Group on ICNAF Fisheries met 24-26 May 1971 with delegates present from Canada, Denmark, Fed.Rep. Germany, France, Iceland, Japan, Norway, Poland, Portugal, Spain, UK, and USA.

Mr E.B. Young (Canada) was affirmed as Chairman of the Working Group. Mr H.R. Beasley acted as Rapporteur.

In opening the meeting, the Chairman drew attention to the Report of the *ad hoc* Working Group on Subarea 5 Fisheries Meeting, 27-29 May 1970 (1970 Meeting Proceedings No. 16, Appendix I), which indicated the general interest of that body in reconvening prior to the 1971 Annual Meeting of the Commission. He then explained that the USA and Canada had made a study using computer facilities of how certain concepts of quota allocation might apply to a broad range of stocks in various parts of the Convention Area. Illustrations on the results of this study had been distributed in ICNAF Comm.Doc. 71/18, "Canada-US Notes on Quota Allocation Procedures". In these circumstances, the Executive Secretary by Circular Letter of 19 April 1971 to Heads of Delegations had conveyed a request for a meeting 24-26 May 1971 of an *ad hoc* working group on fisheries in the Convention Area.

Discussion began with a review of the relation of STACREM to the *ad hoc* Working Group. It was generally agreed that while the former body might be the appropriate forum for examining general principles, more concrete problems of quota allocation could be dealt with in bodies such as the *ad hoc* Working Group.

The USA then reviewed its understanding of the approaches to quota allocation discussed previously in STACREM and in the *ad hoc* Working Group on Subarea 5 Fisheries, including, i.e.,

(1) that a very significant part of quota shares should be allocated on the basis of historical performance taking into account both short- and long-term trends, and
(2) that a second part of quota shares should be allocated on the basis of special factors.

Comm.Doc. 71/18 provides practical examples of how certain fisheries might be affected by quota allocations along these lines. The illustrative examples show how 80% of estimated allowable catches might be allocated on the basis of catches during 1960-1969, leaving 20% for assignment on the basis of special factors. The examples show the effect of weighting short-term 3-year averages and long-term 10-year averages, either equally or 20% and 80%, respectively.

The USA also said that years of overfishing present special allocation problems, since it seems inequitable to allow such activity to increase any participants' quota share. Therefore, the illustrations show the effect of either eliminating or retaining years of overfishing in the calculations. In addition, the average proportion of each nation's catch relative to the total was calculated by the mean ratio method, which minimizes the impact of unusual and atypical variations from overall trends.

In response to a question by Japan, it was noted that the proportions of allowable catch allocated on the basis of historical performance and special factors might vary in different fisheries. The USA and Canada said that the 80-20 ratio for these factors in the examples given reflect their understanding of STACREM's general conclusion that historical performance should be given major consideration. Japan also asked if any portion of a quota might be reserved for competitive fishing by all participants. In reply it was noted that STACREM discussions had generally envisaged allocating the entire allowable catch, with the exception of a small proportion of the total which should be set aside to provide for new entrants and non-members.

Noting the varying circumstances of participants in the different fisheries, the UK drew attention to the "sliding scale" concept of preferential allocations noted during STACREM talks in January 1970 (1970 Meeting Proceedings No. 8, Appendix II). This would allow such allocations to move in inverse ratio to total yield in a fishery, e.g., increasing as total yield decreases and vice-versa.

Canada suggested that the special interest of certain coastal fishermen in resources on nearby fishing banks might be highlighted if longer base periods were used than those shown in the examples.

The USA pointed out that the examples presented were intended to give some perspective on the possibilities for further progress toward national quota management schemes. It was possible that actual negotiations on quotas might involve fewer problems than anticipated. It was brought out that additional examples of quota allocations were available from the computer study, and at the request of the other Delegations, these supplementary illustrations were distributed. They show how quota allocations along the lines indicated in ICNAF Comm.Doc. 71/18 would apply to a wider variety of stocks.

The USA expressed a sense of urgency about initiating work to resolve any remaining problems associated with quota allocation, particularly, in the southern part of the ICNAF Area. It noted the likelihood of the Commission acquiring authority to propose national quotas before the 1972 ICNAF Annual Meeting. Attention was also called to ICNAF Res.Doc. 71/129 "Status of the Fisheries and Research carried out in Subarea 5 in 1970", which shows serious declines in yields from all major groundfish stocks and herring off New England.

As a start, the USA suggested that the examples in ICNAF Comm.Doc. 71/18 might serve as a basis for specific discussions of national quotas for haddock in Subarea 5, with the understanding that these would apply when the resource recovers to reasonable levels of abundance. The USA reiterated its view that fishing for haddock in Subarea 5 must be reserved, essentially for USA fishermen, during the interim period when the stock is recovering from its depleted condition, since the resource has historically provided the principal livelihood of these fishermen.

Japan noted that it had only recently become a member of ICNAF and learned of the critical condition of Subarea 5 fisheries. Nevertheless, it recognized the need for practical solutions to these problems and believed these should be negotiated by concerned participants in the fisheries affected.

The Fed.Rep. Germany, France, and the UK noted that they were not involved in the Subarea 5 groundfish fishery, but were interested in practical solutions that might serve as examples for other fisheries.

Portugal noted it was interested in the general principles of quota allocation, but would have to reserve its position in view of the nature of the problems involved.

Spain noted its willingness to collaborate in conservation programs, provided some account was taken of the special circumstances of its ICNAF fleet, which was specifically designed to salt and dry cod, and could not be diverted to other fisheries. Spain also noted national action taken to prevent further expansion of this fleet.

Poland recognized the need for quick action to devise a practical solution in Subarea 5 fisheries. Bearing in mind that ocean resources are open to all, it would be possible to consider the specific needs of certain countries. However, countries not now participating in these fisheries should not be eliminated from future consideration. Poland also noted that previous enumerations in STACREM of special factors to be considered in quota allocation might need to be broadened to include other considerations such as the economic situation of various participants.

Canada expressed support for the USA view in the case of haddock in Subarea 5. It also suggested that it might be possible after further discussions in STACREM to reach some general consensus of views regarding the "sliding scale" concept of preferential allocation.

Norway noted that it did not fish in ICNAF Subarea 5, but was interested in the general principles of quota allocation. It agreed that it might be useful to review the "sliding scale" concept again in STACREM. Norway also suggested that the

problems of quota allocation in Subarea 5 might be left for resolution by concerned participants. While waiting for ICNAF to obtain authority to allocate national quotas, such discussions might take place outside the Commission.

In accord with these comments, the Working Group

recommended

that the "sliding scale" concept be reviewed by STACREM at the 1971 Annual Meeting of the Commission, if time permitted.

The Working Group also called to the attention of countries fishing in Subareas 4 and 5, a US request for a meeting Saturday morning, 29 May 1971, on quota allocation in Subareas 4 and 5. ICNAF members not participating in these fisheries would also be welcome to attend. (The report of the indicated meeting is attached as Appendix I).

Participants

Spain

V. Bermejo
M.G. Larraneta

France

R.A. Lagarde
R.H. Letaconnoux

Portugal

A.A. Tavares de Almeida
R. Monteiro

UK

J. Graham
H.A. Cole

Denmark

Sv. Aa. Horsted

Poland

M. Fila
F. Chrzan

Japan

Y. Odaka
T. Saito
K. Iino

USA

W.M. Terry
D.L. McKernan
W.L. Sullivan Jr
B.E. Brown
J.A. Holston

Iceland

J. Jonsson

Germany

A. Schumacher

Canada

A.W.H. Needler
G.F.M. Smith
F.D. McCracken
R.G. Halliday
W. Templeman
C.J. Kerswill
E.B. Young

Norway

O. Lund
E. Kvammen

INTERNATIONAL COMMISSION FOR THE NORTHWEST ATLANTIC FISHERIES

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Appendix II
(also ICNAF Comm.Doc.71/21 - App. I)

ANNUAL MEETING - JUNE 1971

Report of the *ad hoc* Meeting on Quota Allocation in Subarea 5
29 May 1971

An *ad hoc* meeting was convened Saturday 29 May 1971 to examine a US informal proposal for allocation of a haddock quota in Subarea 5 when the resource has recovered to former levels of abundance (see attached Table). The meeting was attended by representatives from Canada, Denmark, Fed.Rep.Germany, France, Iceland, Japan, Norway, Poland, Portugal, Spain, USSR, UK, and USA.

Mr R.A. Lagarde was elected Chairman of the meeting. Mr H.R. Beasley acted as Rapporteur.

In introducing the proposal, the USA restated its position that during an interim period while the stock is recovering from its depleted condition, fishing for haddock in Subarea 5 must be reserved, essentially, for US fishermen, in view of their limited mobility and their historic dependence on the resource. The USA related this approach to the "sliding scale" concept discussed earlier in STACREM. Thus, the US proposal shown in the attached Table deals not with allocation during the interim stage, but with allocation after the resource recovers to its potential annual yield of 50,000 metric tons.

The USA then explained the proposal. The portion of the proposed allocation based on historical performance was derived by eliminating from calculations 1965-1966 as years of overfishing, and then weighting short-term 3-year averages and long-term 10-year averages 20 and 80%, respectively. (This is one of the possibilities shown in Table 5 of ICNAF Comm.Doc.71/18). The USA said that the proposed allocation of the remaining portion of the quota on the basis of special factors represented an amplification of their views expressed earlier.

Canada expressed general agreement with the reasoning in the US proposal after calling attention to her status as a coastal country in relation to Subarea 5 haddock.

Poland noted its willingness to support any programs designed to rebuild the haddock resource. On the other hand, it did not believe that the suggested quota allocation after the resource had been restored gave sufficient weight to the special needs of developing countries.

The USSR said it was in accord with the Polish views, and noted that it had stated its general views on quota allocation at the STACREM Session during the current Meeting of the Commission.

Portugal said procedural arrangement for incidental catches in the proposed allocation scheme did not appear to be in accord with STACREM guidelines. Portugal then asked for amplification of the reasoning underlying the proposal.

The USA said years of overfishing had been eliminated because it seemed inequitable to allow such activity to increase any participant's quota share. The weighting given short-term and long-term average catches reflect the US interpretation of the meaning of historical performance. It was the US view that provisions needed for incidental catches could be determined only after most of the direct allocations had been made. The USA recognized that actual amounts allocated on the basis of special factors would need further negotiation.

In concluding the meeting, the Chairman noted the advantages of giving early attention to quota allocation in order to avoid lengthy delays in implementing such schemes once ICNAF acquired appropriate authority for such action. The USA commented that it was for this reason that it had made its informal proposal at this time. It anticipated that the Commission would have authority to allocate national quotas in

the near future. The USA said that, in the light of current conditions, the Commission must expedite preparations for national quotas, if it is to be an effective fisheries management body.

Table Showing
Theoretical Allocation in Subarea 5 for 50,000-ton Haddock Quota

A. Allocated on basis of historical performance - 80%:

	Percentage	1,000 Metric Tons
Canada	(11)	6
Spain	(2)	1
USSR	(2)	1
USA	(64)	32

B. Allocated on basis of special factors - 20%:

	Percentage	1,000 Metric Tons
1. Coastal countries	(10)	5
2. Reserved to offset incidental catches by non-member countries	(4)	2
3. Allowance to offset incidental catches by member countries without quota*	(4)	2
4. Allocated to member countries with small quota*	(2)	1

* Alternatively, special allocations to all member participants, other than coastal countries, could be considered without breakdown between countries without quotas and those with small quotas.

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Appendix III

ANNUAL MEETING - JUNE 1971

Statement of the Observer from the FAO Department of Fisheries, Mr J. Gulland

Mr Chairman:

I would like once more to thank the Commission for this opportunity to take part in the activities of your meeting. To increasing extent, your work is being linked or mirrored by the activities of FAO. For instance, I may mention that I, myself, as well as some members of National delegations to this meeting, have come directly from the meeting of one of FAO's regional bodies, the Fishery Committee for the Eastern Central Atlantic (CECAF). This body, responsible for the fisheries between Gibraltar and the Congo, is facing many of the same problems that are facing ICNAF - increasing pressure on limited stocks, both by locally-based stocks, and by long-range vessels, some of which may also fish in the ICNAF Area. The same problems are also being met elsewhere, and are being tackled by a number of regional fishery bodies, several of which exist within the framework of FAO, or have been set up with the active support of FAO. I might mention here, particularly, the International Convention for the Conservation of the Southeast Atlantic Fisheries, which will very shortly receive the fourth ratification necessary to bring into operation this Commission, covering the waters of the eastern Atlantic, from the Congo River southward.

For all these bodies, the progress of ICNAF in solving the problems of heavy fishing pressure is of very considerable interest. ICNAF is now celebrating its coming of age, or at least its 21st Annual Meeting. I would like to think that ICNAF was good for at least another 21 years. However, the pressure of events, outside the Northeast Atlantic, may make this difficult. Nearly everywhere in the world, the pressure on the stocks is becoming excessive. Though the world catch in 1970 increased over that in 1969, most of that increase, like the decrease in 1969 compared with 1968, was due to changes in the catches of anchoveta in Peru. Omitting the Peruvian catch, the counts in both 1969 and 1970 show a very marked slowing down in the rate of increase of the world fish catch. This slowing down has occurred despite the continuing increase in the size and efficiency of the world's fishing fleets. There is, therefore, an increasingly pressing demand for better management of the fishery resources of the oceans. The world public may, therefore, feel that ICNAF, judged by its performance in managing such stocks as the herring and harp seals, is failing to take timely and effective action. Though this feeling may be unreasonable, it will undoubtedly have an effect in determining national attitudes at the forthcoming UN conference on the Law of the Sea.

In this connection, I believe it is worth emphasizing the very real progress that has been achieved by ICNAF in noting the cooperative scientific study of the fish stocks in the area. Whatever its progress in the management of the fisheries, ICNAF has certainly made very considerable progress in joint studies of the stocks, and whatever the future arrangements for management might be, it seems highly desirable that this close international cooperation should continue.

I would like here to refer to the attitude to scientific advice mentioned by some delegations. This Commission has always, and very rightly, based its actions on scientific advice. However, it is clear that the scientists will not always be able to come up with an exact figure of, for example, the sustainable yield of mackerel in Subarea 5, until the fishery has existed at a high level for some time. On the other hand, the time when control and management can be carried out with least pain, and when long-term damage to the stocks can be predicted most effectively, is during the early stages of the fishery. The Commission and other corresponding bodies should, therefore, be prepared to act on the basis of rather incomplete scientific advice. Waiting until the scientists have completed their studies may merely ensure the decimation of the stocks.

Finally, Mr Chairman, may I repeat my hope that it will be possible for FAO to welcome both the Commission and its scientific advisers to Rome at the beginning of 1972.

INTERNATIONAL COMMISSION FOR THE NORTHWEST ATLANTIC FISHERIES

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Serial No. 2643
(A.c.1)

Proceedings No. 16
Appendix IV

ANNUAL MEETING - JUNE 1971

Statement of EEC Observer

Mr Chairman:

For the first time, the European Communities are taking part in the work of your Commission.

My colleague of the Council of Ministers and I would like, on behalf of the European institutions, to thank the Commission very much for the welcome it kindly gave to our candidature as observers.

The development of the common policy on fisheries between its six Member States lead the EEC to get more and more detailed information about the important international problems relating to fisheries and to take part in their solution. This is why, Mr Chairman, the EEC is very much interested in attending the meetings of your Commission.

Due to their own responsibilities in respect of rational exploitation of the sea resources, our institutions will be led to develop close cooperation with the competent institutions of your Commission.

Therefore, you can be sure, Mr Chairman, that in exercising their functions, they will contribute to the aims that you have sought continuously since the beginning and specially the protection of the stocks and their rational exploitation in the ICNAF Area.

I also wish to inform the Commission that, for example, in any scheme of quota allocation the implementation of the common policy on fisheries may lead the Community to work out arrangements for community management of its member states' quotas.

I should like, Mr Chairman, to sum up this statement by saying that the practical effect of the considerations I have mentioned has been to develop coordination between the member states of the EEC. Consequently, common viewpoints have been reflected; the EEC-Commission might be led to make statements about such common viewpoints during your next meetings.

ANNUAL MEETING - JUNE 1971

Officers

Chairman of Commission	- Dr A.W.H. Needler (Canada)
Vice-Chairman of Commission	- Mr K. Løkkegaard (Denmark)
Executive Secretary	- Mr L.R. Day (ICNAF Secretariat)

Panels

Chairman, Panel 1	- Mr K. Løkkegaard (Denmark)
" Scientific Advisers	- Dr A. Meyer (Fed. Rep. Germany)
Chairman, Panel 2	- Captain Tavares de Almeida (Portugal)
" Scientific Advisers	- Dr W. Templeman (Canada)
Chairman, Panel 3	- Mr A.A. Volkov (USSR)
" Scientific Advisers	- Dr H.A. Cole (UK)
Chairman, Panel 4	- Mr R. Lagarde (France)
" Scientific Advisers	- Mr J.A. Posgay (USA)
Chairman, Panel 5	- Dr F. Chrzan (Poland)
" Scientific Advisers	- Dr G.F.M. Smith (Canada)
Chairman, Panel A	- Mr O. Lund (Denmark)
" Scientific Advisers	- Dr G.F.M. Smith (Canada)

Research and Statistics

Chairman of Standing Committee on Research and Statistics	- Dr A.S. Bogdanov (USSR)

Finance and Administration

Chairman of Standing Committee on Finance and Administration	- Mr Wm. L. Sullivan, Jr. (USA)

Regulatory Measures

Chairman of Standing Committee on Regulatory Measures	- Mr J. Graham (UK)