



FOREIGN

International

NORTH PACIFIC FISHERIES COMMISSION

REPORT ON MEETING:

The International North Pacific Fisheries Commission (whose members represent Canada, Japan and the United States) concluded its Ninth Annual Meeting in Seattle, Wash., on November 17, 1962. Decisions and recommendations were made on a number of vital problems affecting North Pacific fishing operations of the three countries. The Commission's recommendations will not take effect until approved by the member governments.

The meetings, which covered a span of four weeks, brought together many of the top administrators and scientists in the field of fisheries from the three nations.

The Commission did not recommend any changes in the salmon stocks under abstention by Japan and, in the case of the Bering Sea, by Canada as well. This means that Japanese mothership fleets will continue to operate only west of the salmon abstention line, which is located provisionally at 175° W. longitude. Turning to the question of the location of the salmon abstention line itself, the Commission was unable to consider any proposals for changes in the location of the abstention line, since the terms under which the line could be changed have not been agreed to by the three governments concerned.

The Commission studied the problems of salmon conservation in high-seas areas of intermingling--that is, in the extensive ocean areas where salmon from Asia intermingle with salmon originating in certain parts of North America. The Commission has recommended to its member governments that full consideration be given to the conservation needs of the salmon resources when future fishing regulations are prepared. Adequate conservation regulations for the salmon stocks were recommended for special attention.

The Commission reviewed the great progress being made in research on the distribution and movements of the various salmon stocks on the high seas. It took steps to assure the full reporting and publication of the results of the large and highly successful research program carried out under its auspices by the scientific agencies of the three countries.

The Commission also studied the evidence regarding the continued qualification of herring stocks for abstention by Japan, and recommended to its member governments that Japan no longer be required to abstain from fishing the herring off the west coast of Queen Charlotte Islands. It arranged for a study, by a group of scientists of the three countries, of the requirements for research on the North American herring stocks not now under abstention to assess the need for conservation measures.

The Commission gave prolonged study to the halibut stock of the eastern Bering Sea, which Japan has been obliged to abstain from fishing under the provisions of the North Pacific Treaty. The Commission determined on the basis of additional data and analysis during the past year that the halibut stock of the eastern Bering Sea no longer meets all of the requirements for continued abstention set by the Treaty. Therefore, the Commission is recommend-

ing to its member governments that Japan no longer be required to refrain from fishing this stock.

In conjunction with the above action, the Commission established a special group of scientists to consider the problems of halibut conservation which will arise when the eastern Bering Sea halibut are open to fishing by Japan. In addition, because of the extreme importance of the conservation aspects of this proposed change, the Commission has scheduled an interim meeting to deal with this subject. The meeting will begin on February 5, 1963, in Tokyo.

The Commission gave much attention to the subject of Japanese plans for fishing for groundfish stocks, other than halibut, in the eastern North Pacific Ocean south of the Aleutians and in the Gulf of Alaska. Under the terms of the Convention Japan, while obligated to abstain from fishing halibut in those areas, is under no obligation to refrain from fishing for other stocks of groundfish. Japan is naturally desirous of fishing for groundfish other than halibut in the eastern North Pacific.

There was extensive discussion of the possible effect of bottom trawling on halibut stocks. Japan indicated plans to send one bottom trawler to the above area in the winter of 1962/63 and a maximum of four bottom trawlers to the area during the summer of 1963. The Japanese bottom trawling operation in the area in 1963 will be of an experimental nature, with full cooperation in observations, collection of data, discussion and reporting of results, etc., to be carried on by scientists of the three nations represented in the Commission. The purpose of the observations is to determine under what conditions and to what extent trawling for other groundfish with conventional bottom trawls may be injurious to the stocks of halibut and methods of operation by which any damage to halibut stocks can be minimized. All halibut taken will be returned to the sea immediately. Opportunity will be provided for Canadian and United States scientists, upon request, to be aboard the Japanese experimental vessels. The Japanese bottom trawling vessels will exercise great care in areas where high densities of halibut are encountered.

A group of scientists from the three countries, appointed to study questions in connection with the effects of trawling on halibut, has already met and given preliminary study to the organization of the research program.

In addition to the Japanese bottom trawlers, as mentioned above, Japan may license some off-bottom-type trawlers for experimental operation in the eastern North Pacific. There is no evidence that trawls of this type cause any damage to the halibut stocks. However, opportunity will be provided for scientists from the three countries to study the activities of these vessels as well.

TUNA

INTER-GOVERNMENTAL CONFERENCE ON YELLOWFIN CONSERVATION IN EASTERN PACIFIC:

The Inter-Governmental Conference on Conservation of Yellowfin Tuna in the Eastern Pacific was held at San Jose, Costa Rica, on November 7 and 8, 1962. The conference failed to reach agreement upon a date as of which all countries fishing in the regulatory area in the Eastern Pacific on a meaningful scale would apply conservation measures

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to the vessels and persons subject to the jurisdiction of the several countries involved. This inability to arrive at an "agreed date" for the application of conservation measures resulted in part from the fact that Peru and Guatemala did not send representatives to the meeting. Moreover, several countries were represented only by observers who were not authorized to commit their countries in positive terms to establishing and carrying out a conservation program.

The countries represented by observers were: Colombia, Chile, Ecuador, and Japan. Those countries which had authorized delegations in attendance were: Costa Rica, Mexico, Nicaragua, El Salvador, Panama, and the United States. A commitment was not required from all of the countries mentioned since several currently do not fish tuna in the regulatory area on a meaningful scale within the meaning of the requirement for an "agreed date" imposed by United States Public Law 87-814. Of the countries represented at the meeting, only Costa Rica, Japan, and the United States had initiated plans to implement the recommendation of the Inter-American Tropical Tuna Commission for a program to conserve the yellowfin tuna resources of the Eastern Pacific Ocean.

The meeting provided an opportunity to emphasize the need for conserving the yellowfin tuna resources and served as an initial step toward encouraging international cooperation in a program for the conservation of yellowfin tuna. A resolution was adopted which urges that each of the countries which had been invited to participate in the San Jose meeting now make plans to send authorized representatives to a second inter-governmental meeting to be held immediately following the next meeting of the Inter-American Tropical Tuna Commission scheduled to be held in March 1963. Copies of this resolution will be distributed to the countries concerned in the hope that at the next meeting a representative from each country concerned will be in a position to report the progress which has been made by his country in the interim and also to indicate in behalf of the several countries a date as of which a joint yellowfin tuna conservation program can be simultaneously inaugurated. A second resolution adopted at the meeting requests that the parties to the Tuna Convention make arrangements to have the Tuna Commission provide each country with copies of Commission documents which are expected to be considered at the March meeting of the Commission.

EUROPEAN ECONOMIC COMMUNITY

PROPOSALS FOR CONFERENCE ON EUROPEAN COMMON MARKET FISHERIES POLICY:

Limiting participation in the first Conference on a European Common Market fisheries policy to countries within the European Economic Community (EEC) was recommended by the EEC Council of Ministers at its meeting during the week of November 12, 1962. The Council suggested that Denmark, Norway, and the United Kingdom might submit their views by memoranda. The time and place of the fisheries policy Conference remains unsettled, because the Council did not act on the recommendation of the EEC Commission that the Conference be held January 23, 1963, in Scheveningen, the Netherlands. The next meeting of the Council of Ministers at which the proposed Conference was to be discussed was re-

ported to be December 3, 1962, in Brussels, Belgium.

In a speech to the British Import Union on November 16, 1962, the Danish Prime Minister said that Denmark would submit its views on fisheries matters in a memorandum to the EEC Fisheries Conference. He pointed out that the Common Market countries were primarily consumers of fisheries products, while Denmark, Norway, and the United Kingdom were large producers. He believed it would be unfortunate if a fisheries policy was developed without regard to the interests of the latter countries. He hoped that Denmark would be able to bring its influence to bear on the matter. (Regional Fisheries Attache for Europe, United States Embassy, Copenhagen, November 21, 1962.)

FISH MEAL

WORLD PRODUCTION, SEPTEMBER 1962:

World production of fish meal in September 1962 was 24.4 percent greater than in the same month of 1961, according to preliminary data from the International Association of Fish Meal Manufacturers. World production during the first nine months of 1962 was reported as 1,629,871 metric tons.

Most of the principal countries producing fish meal submit data to the Association monthly (see table).

Country	September		Jan.-Sept.
	1962	1961	1962
. . . . (Metric Tons)			
Canada	6,123	5,007	58,736
Denmark	11,212	9,486	72,147
France	1,100	1,100	9,900
German Federal Republic	6,265	7,068	56,504
Netherlands	300	1,200	3,700
Spain	1,993	2,203	19,776
Sweden	327	694	3,086
United Kingdom	5,153	5,079	56,632
United States	28,270	26,124	215,041
Angola	1,230	1,359	19,895
Iceland	11,826	4,697	92,405
Norway	9,403	6,338	95,307
Peru	64,411	43,670	727,285
South Africa (including South-West Africa)	7,481	10,640	199,457
Total	155,094	124,665	1,629,871

Note: Belgium, Chile, Japan, and Morocco do not report their fish meal production to the International Association of Fish Meal Manufacturers at present.

There was a large increase in fish meal production this September in Peru (up 47.5 percent), Iceland (up 151.8 percent), and Norway (up 48.4 percent). This year through September, Peru had increased landings of anchoveta and Iceland and Norway had record landings of summer herring. Fish meal production also increased considerably this September in the United States (up 8.2 percent), Denmark (up 18.2 percent), and Canada (up 22.3 percent), but production dropped 29.7 percent in South Africa because it was the off-season.

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Peru accounted for 41.5 percent of world fish meal production (for countries listed) in September 1962, followed by the United States with 18.2 percent.

During the first nine months of 1962, Peru accounted for 44.6 percent of total fish meal production, followed by the United States with 13.2 percent, and South Africa with 12.2 percent.

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FISH MEAL EXPORTS AND PRODUCTION FOR SELECTED COUNTRIES, JANUARY-AUGUST 1962:

Member countries of the Fish Meal Exporters' Organization (FEO) account for about 90 percent of world exports of fish meal. The FEO countries are Angola, Iceland, Norway, Peru, and South Africa/South-West Africa. During January-August 1962, total fish meal exports from the FEO countries were only slightly below their total production. Some FEO countries had a carry-over at the beginning of 1962 of stocks of fish meal produced the previous year.

oils (including whale and sperm whale oils, and fish and fish-liver oils). The 1963 estimated production is to be slightly less than in 1962 and 1961, but slightly more than in 1960.

2/1963	3/1962	1961	1960	1959	1958	1957	Average	
							1955-59	1950-54
..... (1,000 Short Tons)								
Production:								
1,270	1,311	1,309	1,141	1,131	1,059	1,033	1,074	990
Exports:								
840	871	839	785	722	701	677	687	639
1/Whale, sperm whale, fish, and fish-liver oils.								
2/Forecast.								
3/Partly forecast.								

Since 1950, there has been a steady increase in the world exports of marine oils (including whale and sperm whale oils, and fish and fish-liver oils). The 1963 exports are forecast as slightly less than in 1962, but about the same as in 1961. (Fats and Oils Situation, November 1962, FOS-215, Econom-

Production and Exports of Fish Meal by Member Countries of the Fish Meal Exporters' Organization, January-August 1962

Country	1962								
	January	February	March	April	May	June	July	August	Jan.-Aug.
..... (Metric Tons)									
Angola:									
Production	3,278	2,355	2,819	1,891	1,542	2,483	1,190	3,098	18,656
Exports	3,597	2,780	2,912	1,902	1,545	2,212	1,124	3,272	19,344
Iceland:									
Production	1,421	5,754	6,054	4,040	9,661	5,400	19,094	29,155	80,579
Exports	9,002	6,120	4,514	3,548	8,100	7,243	2,896	10,894	52,317
Norway:									
Production	4,081	3,738	4,959	3,345	3,822	10,739	36,494	18,726	85,904
Exports	10,047	4,946	3,103	2,010	1,512	1,595	3,342	4,187	30,742
Peru:									
Production	78,979	76,975	83,062	100,074	121,533	83,819	65,716	52,416	662,574
Exports	124,590	86,414	84,415	69,609	97,896	96,847	95,333	89,009	744,113
South Africa (incl. South-West Africa):									
Production	14,500	26,950	31,300	29,269	31,945	23,600	22,120	11,660	191,344
Exports	23,300	12,870	18,110	23,161	23,695	18,800	16,855	14,665	151,456
Total Production	170,536	113,130	113,054	100,230	132,748	126,697	119,550	122,027	1,039,057
Total Exports	102,259	115,772	128,194	138,619	168,503	126,041	144,614	115,055	997,972

In January-August 1962, Peru accounted for 74.6 percent of total fish meal exports by FEO countries, followed by South Africa with 15.2 percent, Iceland with 5.2 percent, Norway with 3.1 percent, and Angola with 1.9 percent.

MARINE OILS

ESTIMATED WORLD PRODUCTION AND EXPORTS OF MARINE OILS, 1957-63:

Since 1950, there has been a steady increase in the world production of marine

ic Research Service, U. S. Department of Agriculture.)

FOOD AND AGRICULTURE ORGANIZATION

DEVELOPMENT OF MECHANIZED FISHING FLEETS DISCUSSED AT IPFC TENTH SESSION:

The development of mechanized fishing fleets was one of the main topics discussed at the Tenth Session of the Indo-Pacific Fisheries Council (IPFC) held in Seoul, Korea, October 10-25, 1962.

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The agenda for the 1962 symposium was centered on discussion of fishing vessels up to 10 gross tons. Among the problems to be dealt with were those on engine selection and maintenance, engine installation and propeller selection, mechanization of existing vessels, development of new mechanized vessels, and government programs for vessel mechanization. Experience papers from each of the 17 member countries of IPFC also were discussed at the Tenth Session.



In Thailand, separating the catch of a fishing boat according to kinds and size of fish. The woman in the center is a fish buyer.

Most fishing in the Far East is still done from small traditional sail or oar-propelled craft. During the past few years, the governments of Indo-Pacific countries carried out programs to equip those small fishing craft with outboard or inboard motors so as to expand their fishing range and at the same time increase the daily fish catches.

Note: See Commercial Fisheries Review, December 1962 p. 60.

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FIRST WORLD CONFERENCE ON PESTICIDES HELD IN ROME:

The first world conference on the use of pesticides in agriculture was held in Rome, November 12-17, 1962, under the sponsorship of the Food and Agriculture Organization (FAO). A wide range of recommendations was adopted by the 34 countries (among which was the United States) attending the meeting. FAO member Governments were urged to learn as much as possible about the safe and efficient use of pesticides as an aid to increasing world food production.

Among the recommendations made to member Governments at the meeting were:

1. Test and approve poisonous chemicals before they are given to farmers, and study the level of residues which may safely remain on crops.
2. Encourage basic research into plant and animal protection.
3. Study the possible side effects on crop fertility, fish and wild life, and on the beneficial insects when setting up permissible levels of residues.

As a result of the conference, FAO was asked to establish three working parties. One of the working parties was to deal with data on toxicity and methods of testing chemicals. It would seek to unify levels of amount of a specific chemical that a human being could safely absorb in a lifetime, and to help coordinate methods of analyzing compounds, etc. The second working party would concentrate on registration, approval, and labeling of pesticides. The third would deal with the growing problems of pests which develop resistance.

FAO was also requested to collect and disseminate more information on the vital problem of pesticides.

At the Eleventh Session of the FAO Conference held in Rome during October-November 1961, it was requested that a conference on pesticides be called during 1962. It was believed that such a meeting on the subject was needed because of an increasing volume and variety of pesticides being used during the production, processing, storage, and distribution of food and agricultural products in order to avoid serious losses in both quantity and quality of those products.

It was concluded at the Eleventh FAO Conference that the efficient and economical use of pesticides in agriculture was being hampered by the increasing apprehension as to the effects from the use of pesticides. It was then also concluded that misunderstanding of problems relating to pesticide residues in food, and that the lack of uniformity of approach by governments and industry might delay progress in pest control, and handicap international movement of agricultural products.

Note: See Commercial Fisheries Review, February 1962 p. 51.

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REGIONAL FISHERIES COMMISSION FOR WESTERN AFRICA

FIRST SESSION HELD IN TUNIS:

The First Session of the Regional Fisheries Commission for Western Africa was held in Tunis November 12-17, 1962. The Commission was set up to provide advice, technical assistance, and coordination to member countries on fisheries problems, and to conduct studies and research on the development of West African fisheries resources. However, the meeting ended on the first day and it did not proceed as planned.

An observer delegation from the United States was invited to attend the meeting.

The Director-General of the Food and Agriculture Organization was requested at the 10th Session of the FAO Conference held in November 1959, to explore the establishment of a Regional Fisheries Commission for Western Africa. The proposal was endorsed by the United Nations Economic Commission for Africa (UNECA) in February 1960, and by the first FAO Regional Conference for Africa at Lagos held in November 1960.

Note: See Commercial Fisheries Review, June 1961 p. 50.

GENERAL AGREEMENT ON TARIFFS AND TRADE

TWENTIETH SESSION ENDS:

The convening of a ministerial level meeting early in 1963, the prospect of the initiation of a major new movement of tariff and trade liberalization, trade problems arising from quotas and from the imposition of temporary customs surcharges, reports on developments in the European Economic Community (EEC) and other regional economic arrangements, and expansion of membership of GATT were among the principal subjects dealt with by the Contracting Parties to the GATT at their 20th session which took place in Geneva October 23-November 16, 1962. Over 80 countries, including the 44 GATT Contracting Parties, and 12 inter-governmental organizations were represented at the Session.

The decision of the Contracting Parties to call for a GATT Ministerial Meeting the early part of next year stemmed from a joint proposal of the United States and Canada. Widely endorsed during the session by contracting parties at all levels of economic development, the initiative grew out of the

sponsors' conviction that there is now a pressing need for ministers to consider basic trade problems and policies if satisfactory and mutually beneficial international trading relations are to be furthered.

The United States Representative pointed out that the recently enacted Trade Expansion Act, with its unprecedented and far-reaching authority in the trade field, would enable the United States to participate fully in the kind of broad and comprehensive program of world trade liberalization for which it is anticipated that the forthcoming Ministerial Meeting would provide stimulus and direction.

The holding of a new conference for the comprehensive reduction of tariff barriers on industrial goods and primary products, possibly in 1964, would be a prime consideration of ministers, but with full recognition that if the legitimate trade interests of all Contracting Parties are to be met, significant progress must be made at the same time in such other vital trade areas as agricultural protectionism and the need of the less developed countries for expanding markets.

In addition to their annual consideration of reports of consultations by the Committee on Balance-of-Payments restrictions with 13 countries maintaining quantitative import restrictions in accordance with GATT provisions, the Contracting Parties had before them several issues dealing with other types of import restrictions. Prominent among those was the United States complaint against France and Italy for their persistent use of import prohibitions and quotas which impaired or nullified tariff concessions which the EEC had given to the United States. Through bilateral consultations conducted during the session with Italian representatives, the United States Delegation was successful in securing a commitment to liberalize a significant group of products of interest to the United States. On the basis of this forthcoming action by the Italian Government, and with the understanding that bilateral consultations would be continued on remaining import restrictions, the United States withdrew its complaint against Italy from this session's agenda.

In the case of the French import restrictions, the Contracting Parties convened a panel which examined the facts of the complaint in accordance with prescribed GATT (Article XXIII) procedures, presented a re-

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port which sustained the United States argument of nullification or impairment of trade benefits due the United States, and called upon the French Government to withdraw its trade restrictions which were inconsistent with the GATT. At the same time the panel recommended that the United States refrain "for a reasonable period" from exercising its right under Article XXIII to suspend the application to France of concessions and other trade obligations equivalent to those being denied to United States exports. It is hoped that the findings and recommendations of the Contracting Parties will lead to early and satisfactory progress in the removal of French restrictions which have adversely affected United States exports to France.^{1/}

In another area of trade restrictions of particular significance to United States export interests, the Contracting Parties considered the temporary import surcharges which were imposed by Canada in June 1962 for balance-of-payments reasons. The Contracting Parties expressed regret that the Canadian Government had found it necessary to introduce temporary measures contrary to the GATT, recommended that Canada remove its surcharges expeditiously, and requested Canada to report in the early part of 1963 on action taken to this end. The Canadian Delegation in undertaking to cooperate to the fullest possible extent in following the decision of the Contracting Parties, cited as evidence of its intentions a further liberalization step. By this new action, surcharges were being relaxed on products having an annual import value of about \$260 million.^{2/}

As further evidence of increasing concern of Contracting Parties over import restrictions still imposed by some countries inconsistent with GATT provisions, arrangements were made for a continuation of notification and examination procedures designed to maintain maximum pressure for the removal of such restrictions.

In the field of regional economic integration, the Contracting Parties heard reports and conducted examinations of developments in Europe, Latin America, and Africa. They gave special attention to a report by a standing GATT committee on the EEC's Common

^{1/}Fish oil is among the United States products that have been adversely affected by French import restrictions.

^{2/}The Canadian surcharges applied to all fishery products and were recently removed by the Canadian Government.

Agricultural Policy and to a Working Party examination of the agreement providing for the association of Greece with the EEC. While Contracting Parties voiced their appreciation of the EEC's accomplishments in laying the groundwork for the highly complex operations required to carry out a common agricultural policy, various countries, including the United States, recorded their concern over certain protectionist aspects of the policy and their apprehensions that the policy could in some areas lead to an uneconomic degree of self-sufficiency in agricultural trade which could work to the detriment of traditional, efficient agricultural exporting nations. With regard to an examination earlier this year of the EEC-Greek association agreement, the Contracting Parties decided that in view of divergent views on the implications of the agreement with respect to trade interests of individual countries and with regard to certain provisions of the GATT, the application of the agreement would be kept under review, with Contracting Parties free to exercise their rights under the GATT should any of them consider their national interests adversely affected by implementation of the agreement.

Members of the European Free Trade Association, the Latin American Free Trade Area, and the Central American Free Trade Area also reported on progress in completing their regional trading arrangements.

Two recent agreements for regional groupings in Africa, the African Common Market and the Ghana-Upper Volta Trade Agreement, were referred to a Working Group which will study the agreements to see whether they qualify as customs unions or free trade areas under Article XXIV of the GATT. A report is to be made to the GATT Council of Representatives early in 1963.

The number of full Contracting Parties to the GATT rose from 42 to 44 with the accession of two newly-independent states: Trinidad and Tobago, and Uganda. In addition, the Contracting Parties approved the provisional accession to the GATT of Yugoslavia and the United Arab Republic, and extended for two more years a decision granting provisional accession to Argentina. The Contracting Parties also agreed to continue for another year special arrangements to afford 15 newly independent states of Africa a further opportunity to examine their future commercial policies and decide whether they should seek accession to the GATT in their own right.

International (Contd.):

As has been the rule for several years, the Contracting Parties devoted an important portion of their time to the progress for the expansion of international trade, the key elements of which are tariff reduction, improved access to markets for agricultural products, and the removal of obstacles to the trade of less developed countries. While to a considerable extent further progress in these areas will be dependent on policy guidance emerging from the forthcoming Ministerial Meeting, the Contracting Parties are endeavoring to maintain the momentum already established since the last Ministerial Meeting with a view to providing the basis for possible further action to be initiated at the 1963 gathering of ministers. It is expected that a Working Group on Tariff Reduction will begin to meet in the near future in order to lay the groundwork for an imaginative and comprehensive program for tariff reduction and trade liberalization.

Meeting at frequent intervals throughout the session, Committee III, which is concerned with expansion of the export earnings of less developed countries, took stock of the progress that has been made in the reduction of the tariff and non-tariff barriers impeding such expansion. The Committee considered proposals by a group of these countries within GATT for more rapid and concrete action to this end. It was agreed to give further attention to other possibilities for enhancing the Committee's usefulness in helping the less developed countries enlarge their export earning capacity, including greater stress on consultations with industrial countries maintaining restrictions harmful to the trade of developing countries and consultations with developing countries designed to clarify the relationship between their trade prospects and the financing of their economic development.

The committee meetings revealed that the less developed countries are far from satisfied with progress made to date towards the objectives of the Declaration on the Promotion of the Trade of the Less Developed Countries adopted last year and desire an intensified effort to remove the trade barriers which now encumber their export trade. They did, however, welcome the United States Trade Expansion Act as a promising means of achieving some of their trade objectives.

A wide variety of other trade policy matters also came before the Contracting Parties. In a review of the status of Article XXXV, under which many Contracting Parties withhold the application of the GATT to Japan, the Contracting Parties welcomed the agreement of the United Kingdom to disinvoke this article as well as steps by others toward the same end. They expressed the hope that other countries now invoking this article would reconsider and fully apply the provisions of the GATT in their trade with Japan. Following exchanges of views with other delegations and a reappraisal of the present stage of bilateral negotiations, the United States Delegation announced that it had been decided not to ask the Contracting Parties at this session to vote for a waiver which would permit the entry into effect on January 1, 1963, of the revised United States tariff schedules authorized in the Tariff Classification Act of 1962. The United States Delegation reviewed the importance the United States still attached to early implementation of the revised schedules, but explained that consultations under way since September had in some cases proved more time-consuming than anticipated and had also been affected by the problem of providing adequate documentation. The United States Delegation, however, underscored its intention not to slacken efforts in providing documentation and other technical assistance to other delegations in order that consultations and negotiations can move forward to completion as rapidly as possible.

It was agreed that the 21st Session of the Contracting Parties will take place from October 22 to November 15, 1963.

Note: See Commercial Fisheries Review, December 1962 p. 56.

INTERNATIONAL COUNCIL FOR THE
EXPLORATION OF THE SEAREPORT ON FIFTIETH
STATUTORY MEETING:

The International Council for the Exploration of the Sea (ICES) held its 50th Statutory Meeting in Copenhagen, Denmark, October 1-10, 1962. It was attended by 175 delegates, experts, and observers representing 18 countries and 14 scientific organizations. A Special Meeting "to consider problems in the exploitation and regulation of the fisheries for Crustacea" immediately preceded the Statutory Meeting and lasted three days.

At the Special Meeting on Crustacea, two representatives of the Bureau of Commercial

International (Contd.):

Fisheries gave technical papers on the dynamics of king crab and penaeid shrimp populations, and one representative of the Fisheries Research Board of Canada presented a summary of lobster research. In addition, 8 scientists from the United States and 2 from Canada attended both meetings as nonofficial observers or informal participants.

The International Council, the oldest and perhaps the foremost organization of its kind, has a membership comprising 16 northern European countries. Its primary function has been and continues to be the coordination of efforts by member governments to ensure, by means of research and regulatory measures, the rational exploitation of marine (fishery) resources commonly fished by the nationals of each. Geographically, the Council's area of responsibility may be roughly defined as the North Atlantic Ocean from Greenland eastward to and including the Norwegian, North, Barents, and Baltic Seas, as well as all contiguous or adjacent European waters. Largely because of the Council's geographical area of interest, neither the United States nor Canada have as yet deemed membership necessary.

The Council operates through a system of 18 Committees, 14 of which are technical in scope and 4 administrative. The technical committees are composed of varying numbers of experts and established according to (1) type of general activity (e.g., the Hydrographical and Statistical Committees); (2) diverse research on particular groups of fishes (e.g., the Sardine and Herring Committees); or (3) exploited fish resources in a particular area (e.g., the Atlantic and Baltic-Belt Seas Committees).

Proceedings during the five-day period set aside for Committee meetings proved quite extensive (about 195 technical reports were presented) and the results therefore difficult to rank according to their relative importance. On the basis of amount of attention received, the following items, in the form of Committee recommendations to the Council, could be classed as the more significant:

(1) Increase efforts to align activities of oceanographers and fishery scientists;

(2) Focus more attention on the fast-growing problem of marine radioactivity;

(3) Re-evaluate the ultimate benefits of synoptic surveys of the marine environment and its inhabitants;

(4) Strengthen proposals to standardize methods of plankton research in particular and marine research in general;

(5) Expedite analysis and presentation of results of the International (multi-ship) Experiment on cod end mesh selectivity conducted in 1962;

(6) Hold Symposium of "Measurement of Abundance of Fish Stocks" immediately prior to 1963 Council Meeting which is to be held in Madrid;

(7) Undertake an International Herring Research Scheme which would involve selection of an area (such as a Norwegian fjord) harboring an isolated, unexploited herring population on which could be conducted an intensive dynamics study;

(8) Endorse the world meeting on Crustacea proposed by FAO;

(9) Enhance coordination in the execution of mark-recapture experiments being conducted on a variety of species by ICES members.

Some 43 scientific papers presented during the Special Meeting on Crustacea drew attention to: Lobster conservation and the need to control newly-discovered lobster diseases; attempts by the U. S. S. R. to transplant the Kamchatka king crab in the Barents Sea; the slow progress of research prerequisite to rational exploitation of prawn and shrimp; new theories in managing crab fisheries; and recent problems arising in connection with expanding fisheries for the Norway lobster. The Meeting closed with the general conclusion that the steadily increasing world demand for edible Crustacea of all kinds necessitates ensurance of expanding production based upon the modern principles of resource management.

Note: See Commercial Fisheries Review, October 1962 p. 45.

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GREAT LAKES FISHERY COMMISSION

MEETS IN OTTAWA:

An important contribution to science is being made in the development of a specific

International (Contd.):

poison to eradicate sea lampreys, Canadian Fisheries Minister J. Angus MacLean said at a meeting of the Great Lakes Fishery Commission held on November 27, 1962, in Ottawa. The sea lamprey is the predator responsible for the decimation of commercially valuable fish stocks in the Great Lakes. He stated that Canada and the United States have a great opportunity to show the world what can be done in the field of international conservation and development of a living resource. Canada and the United States are signatories to the bilateral convention under which the Great Lakes Fishery Commission operates.

The Canadian Fisheries Minister stated it was a very important time for the Commission because it was entering the eighth year of its treaty. It was considered a year when the Commission would have to assess its position and to review its accomplishments. He said that the Commission had provided excellent results for the expenditures invested in it, and he was confident that the good results would continue in the future. The Canadian federal Deputy Minister of Fisheries also referred to the Commission's achievements, particularly with respect to its measures to check the sea lamprey.

Speaking for the United States representation, D. L. McKernan, Director of the Bureau of Commercial Fisheries, said that his government regards the Commission as another example of the close relationship between the two countries. He said Canada's active participation in international fishery commissions was exemplified by the fact that its Deputy Minister of Fisheries had served as chairman on more international fisheries commissions than any man alive.

Note: See Commercial Fisheries Review, September 1962 p. 54.

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CANADA-UNITED STATES SEA LAMPREY CONTROL MEASURES IN GREAT LAKES PRODUCING RESULTS:

A concerted effort by Canada and the United States to control the sea lamprey of the Great Lakes is producing very encouraging results. On November 28, 1962 at the final session of the meeting of the Great Lakes Fishery Commission, held in Ottawa, the Commission Chairman said that real progress has been made in checking the spread of sea lamprey populations through the use of a specific poison or lampricide. However, he stressed that there still remains much to be done and the lamprey problem must be kept under constant observation.

Surveys of known lamprey-producing streams in both Canadian and United States waters of Lake Superior in 1962 showed that the adult population had been reduced by about 80 percent since the introduction of the lampricide. This information was contained in reports presented by scientists of the Fisheries Research Board of Canada and the U. S. Bureau of Commercial Fisheries, the agencies which conduct the Commission's scientific programs.

Both scientific agencies in their reports emphasized the importance of resurveying streams which had already been chemically treated. This year scientists resurveyed 178 streams on the Canadian side of Lake Superior and found that only 8 were again producing sea lamprey. To date 5 of those streams have been retreated. An additional 503 streams entering Lake Superior from the United States were resurveyed and only 6 of those were again producing lamprey, but in much smaller numbers.

United States officials reported that 20 known lamprey-producing streams in Lake Superior had now received their second treatment with lampricide. Additional streams will be retreated next spring.

Initial treatment of streams in Lake Michigan is now under way and a survey of Lake Huron to determine lamprey-producing streams is nearing completion.

The meeting also heard a report on a lake trout rehabilitation program for Lake Superior. In 1962, some 1,800,000 yearling lake trout were planted in the lake, an increase of about 600,000 over the previous year.

At an earlier session the Commission heard reports from the U. S. Bureau of Commercial Fisheries, the Ontario Department of Lands and Forests, and the Ohio Division of Wildlife, concerning the decline in recent years of the yellow pike (walleye) population of Lake Erie. Following a discussion of the three reports, the Commission decided that more scientific data would have to be documented before the Commission can recommend any course of action. It also suggested that the three agencies prepare a single report on the yellow pike problem and present this to their respective governments before the end of January 1963. Such a report would also be referred by the Commission to its scientific agencies and considered again at its next meeting.

NORTH PACIFIC FUR SEAL COMMISSION

REPORT ON SIXTH ANNUAL MEETING:

The North Pacific Fur Seal Commission concluded its Sixth Annual Meeting at Washington, D. C., on November 26, 1962, after adopting a recommendation to the four contracting countries concerning the method of sealing best suited to achieve the objectives of the Interim Convention on Conservation of North Pacific Fur Seals. For all fur seal islands, the Commission gave approval to a 1963 fur seal harvest which would be somewhat higher than the 1962 harvest. That decision indicates the continued success of the Commission in developing stocks of fur seals in the North Pacific to levels designed to produce the highest sustainable yields.

The Commission is composed of representatives from the member countries of Canada, Japan, the U.S.S.R., and the United States. The Commissioners are George R. Clark, Deputy Minister of Fisheries of Cana-

International (Contd.):

da; Shunichi Ohkuchi, Director, Marine Production Division, Fisheries Agency, Ministry of Agriculture and Forestry of Japan; A. S. Babaev, Deputy Chief, Far Eastern Fisheries Division, State Committee on Fisheries, Council of Ministers, of the U.S.S.R.; and Ralph C. Baker, Chief of the Division of Resource Development, U. S. Bureau of Commercial Fisheries. W. M. Sprules, Special Assistant to the Deputy Minister of Fisheries, acted for the Commissioner of Canada who was unable to attend the Sixth Commission Meeting. The Commission Meeting was preceded by a meeting of the Commission's Standing Scientific Committee. That Committee met November 20-23.

The North Pacific Fur Seal Commission has as its major responsibility the investigation of the fur seal resources of the North Pacific Ocean. The objective of the investigation is to determine the measures which will make possible the maximum sustainable yield from those resources, with due regard for their relationship to the productivity of other living marine resources in the area. The Convention requires that the Commission recommend to the four Governments at the end of the fifth convention year (October 13, 1962) the methods of sealing best suited to achieve that objective.

To aid it in determining the best methods of sealing, the Commission reviewed two reports prepared by its Standing Scientific Committee. One report gave the results of research conducted from 1958 through 1961 by scientists of the four countries, and the other reported on research conducted during the 1962 season.

The Commission took into account the current scientific knowledge of fur seals and the present technology of land and pelagic sealing. The Commission recommended to its Member Governments that land sealing, when carried out under strict government control and in accordance with appropriate measures regarding the size, sex, and age composition of the seasonal kill from a herd, is the method best suited to achieve the objectives of the Convention. The Commission also recommended that research be continued on the methods of sealing, as well as on other measures necessary to achieve the objectives of the Convention.

Under the terms of the Convention, pelagic sealing (killing of seals at sea) is forbidden except for specific numbers that may be taken pelagically for research purposes by scientists of the Member Countries, and for the operations of aborigines using primitive weapons. All land harvesting is done on the breeding grounds under the control of the Soviet Government on Robben Island in the Sea of Okhotsk and the Commander Islands in the western Bering Sea, and under the control of the United States on the Pribilof Islands in the eastern Bering Sea. During 1962, the commercial land take of seals by the U.S.S.R. was 12,427 and by the United States, 77,929. The Convention contains a provision whereby Canada and Japan each receive 15 percent of the seal skins taken in commercial operations on the breeding grounds under United States control. Subject to certain stipulations, Canada and Japan are entitled to a like percentage of the commercial take on the breeding grounds under U.S.S.R. control.

In accordance with plans developed by the Commission, research agencies of the four participating countries carry out research at sea. Research and management on the breeding grounds are conducted by the United States on the Pribilof Islands and by the Soviet Union on the Commander Islands and on Robben Island. The scientific investigations are concerned with the dynamics of the fur seal populations, distribution and migration at sea, feeding habits, and harvesting methods.

During 1962, scientists of the four Member Countries conducted extensive research at sea and the results of those operations, together with those of the U.S.S.R. and the United States on the breeding grounds under their respective control, were reviewed by the Commission.

Recoveries of tags from seals taken in research collections at sea and in harvests on the breeding grounds indicate that the seal herds of the eastern and western regions of the North Pacific Ocean intermingle to some extent both at sea and on the breeding islands.

Research at sea in 1963 will begin in January. It will be planned to obtain additional information on intermingling, distribution, abundance, and food habits of the herds. On land, the scientists will concentrate on studies of sizes, changes, and trends in fur seal populations.

International (Contd.):

Invitations have been extended by the U.S.S.R. to the scientists of Canada, Japan, and the United States to visit the Robben Island seal rookery during fur seal harvesting operations in 1963. A high degree of cooperation in the conduct of the Commission's scientific work exists among the Member Countries.

The Canadian Commissioner, George R. Clark, was elected Chairman of the Commission, and Shunichi Ohkuchi, the Japanese Commissioner, was elected Vice Chairman. The newly elected officers will serve through the next annual meeting.

The next annual meeting of the Commission will be held in Moscow, U.S.S.R., at a time not yet determined, but possibly in February 1964. The Standing Scientific Committee will meet one week prior to that meeting to consider the results of the preceding year's investigations and to prepare its report to the Commission.

* * * * *

STATEMENT BY SECRETARY OF THE
INTERIOR AT THE SIXTH ANNUAL
MEETING OF COMMISSION:

At the Sixth Annual Meeting of the North Pacific Fur Seal Commission, Washington, D. C., during the November 26, 1962, opening plenary session, United States Secretary of the Interior Stewart L. Udall said:

"It is with great pleasure that I welcome you to the city of Washington for the sixth annual meeting of the North Pacific Fur Seal Commission. The work of this Commission has been outstanding in demonstrating the results that can be obtained through international cooperation in managing a natural resource of international interest. All of you who are associated with this organization can be proud of the record you have made. At this time, when we are only beginning to recognize the importance of our marine resources in enhancing the standards of living of peoples throughout the world, it is most encouraging to have the accomplishments of this Commission as an example for other international endeavors.

"Last year marked the 50th anniversary of the signing of the original four-party treaty among Canada, Japan, Russia, and

the United States for the conservation of North Pacific fur seals. During this period the fur-seal resource in the North Pacific has increased from less than a quarter of a million to over one and three-quarter million animals. During the term of the present Convention, all the fur-seal stocks in this area have flourished.

"In 1958 an extensive cooperative research program was initiated under your auspices, involving investigations both on the high seas and on the rookery areas. Research vessels of the four Party Governments have ranged over a broad area of the North Pacific in a carefully coordinated study of the habits of fur seals in their marine environment. Other comprehensive studies recommended by the Commission have been carried out to good effect by the Soviet Union and the United States on the various fur-seal rookery areas under their respective control. The mutual research objectives of the parties have been advanced to a high degree through frequent exchanges of scientific personnel and through a free flow of data and ideas among their research teams.

"Significant results from this research have included information concerning migration routes, intermingling of North American and Asian stocks, food habits, life history, and population dynamics of fur seals. We have learned, for example, that significant numbers of fur seals born on the Pribilof Islands appear some years later on the Kommandorski Islands off Kamchatka, and, conversely, that fur seals born on the fur seal islands off the Asian coast later are found in significant numbers on the Pribilof Islands.

Research programs approved by the Commission have accelerated the adoption of new management techniques. For instance, female fur seals of the North American herd now are being harvested selectively on a large scale. It is gratifying to note that high-quality female fur seal pelts are increasingly in demand in the fur markets of the world. Through utilization of both sexes of fur seals, greater benefits can be realized from this resource as all of the North Pacific herds approach maximum levels of development.

"The Interim Convention on Conservation of North Pacific Fur Seals entered into force on October 14, 1957, more than five years ago. It is now appropriate under the terms of the Convention that the governments reach early agreement as to the nature of future

International (Contd.):

arrangements for international cooperation in the conservation of the North Pacific fur seal. During the past five years of intensive research, the Commission has accumulated a wealth of information upon which to base wise recommendations in this matter. I am most hopeful that the deliberations of this meeting will point the way to a permanent convention that will assure the conservation and rational utilization of this valuable resource for the benefit of all concerned.

"Again let me welcome you to Washington. I hope that you will enjoy your visit and that your meeting here will be most fruitful."

UNESCO

MARINE TAXONOMIC EXPERT APPOINTED FOR SOUTHEAST ASIA AREA:

The former Director, Dr. Raoul Serene, and later Adviser of the Oceanographic Institute of Nhatrang, Vietnam, has been appointed by UNESCO as Marine Taxonomic Expert to be attached to the UNESCO Southeast Asia Science Cooperation Office. The marine biologist has been working in the Southeast Asia region for many years and has acquired wide experience in marine science matters of the region. He was scheduled to assume his new duties in May 1962.

The assignment of a Marine Taxonomic Expert for the Southeast Asia region is the result of a recommendation adopted by the Regional Meeting on Marine Sciences convened by the Southeast Asia Science Cooperation Office in Saigon in January 1959.

The duties of the expert include the following:

1. To visit the countries of the region to determine the actual status of existing reference collections, their administration, facilities and equipment, staff, and associated library and laboratories.

2. To assist the scientists and governmental authorities in each country to establish or strengthen national reference collections, demonstrating how they should be organized and maintained, and assisting in training those persons who will carry out the work.

3. To assist local taxonomists in the identification of marine organisms.

4. To advise UNESCO on plans and needs of marine scientists in the region.

The marine biologist is initially assigned for the above work by the UNESCO Office of Oceanography for a period of one year. It is planned that he should visit initially for periods of approximately one month each of the countries of the region which are concerned with marine sciences and request his services. (Pacific Science Association Information Bulletin, July 1962.)

WORLD FISHERY CATCH

LANDINGS, 1961:

The world fish catch for 1961 was 41.2 million metric tons, an increase of 8 percent over 1960.

Japan continued to lead the world's fishing nations. Japan's share of the 1961 catch was 6.7 million tons, 0.5 million tons more than her 1960 catch. Japan has been the leading fishing nation since 1948. In 1960 she became the first country to reap more than six million tons of fish from the earth's waters.

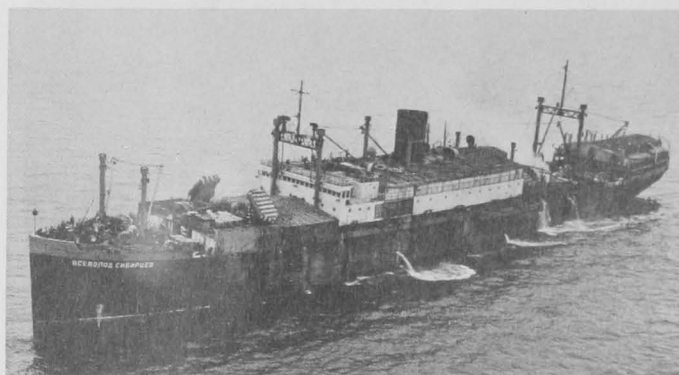


Fig. 1 - A large Soviet fishery factoryship.

Peru, with a catch of 5.2 million tons in 1961, is the number two fishing nation. Mainland China occupies the third spot, although computation of its catch (5 million tons) was based on estimates made by FAO. The Union of Soviet Socialist Republics and the United States, with catches of 3.2 and 2.9 million tons, respectively, are listed as four and five among the fishing powers. Other countries whose 1961 catch was 500,000 or more tons were: Norway, 1,500,000; Canada, 1,020,800; Spain, 1,014,500; South Africa and South-



Fig. 2 - British distant-water trawler Churchill approaching dock at Grimsby--fishes off Iceland, Greenland, and other distant grounds.

International (Contd.):



Fig. 3 - In Tunisia a vessel fishing at night is equipped with electric surface lamps for attracting fish. Here a net-load of fish is being hauled aboard.



Fig. 4 - In Somaliland a local fisherman is weighing fish.

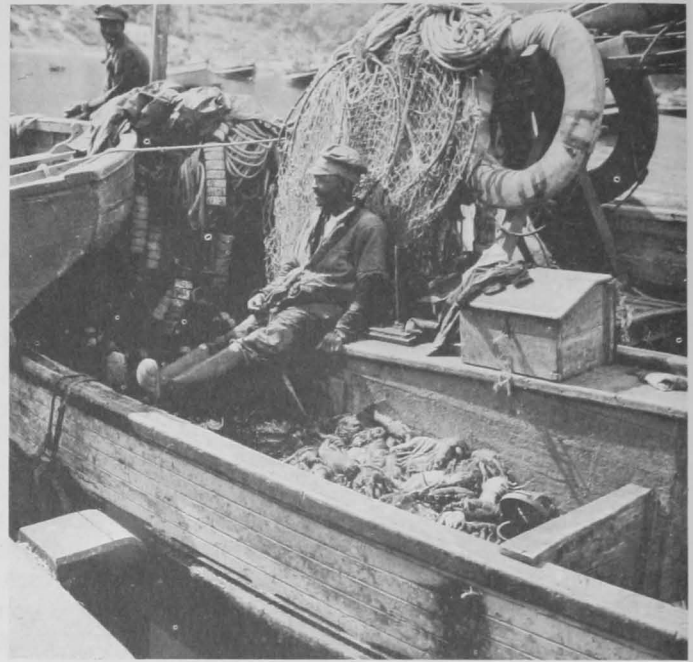


Fig. 5 - A fishing vessel at Hout's Bay, South Africa Republic, with a catch of spiny lobsters.

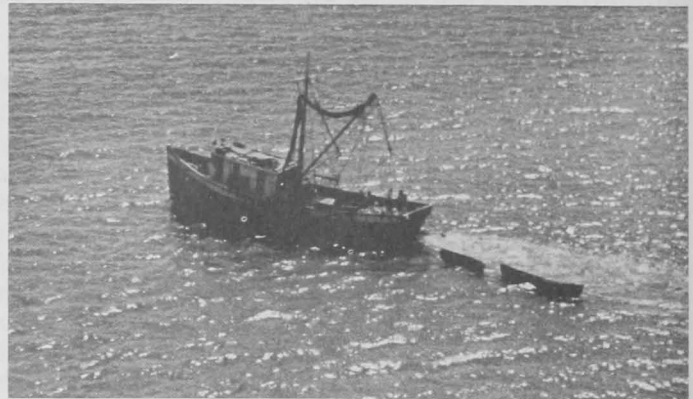


Fig. 6 - A Panamanian shrimp trawler.



Fig. 7 - In Mexico, Patzouaro Lake fishermen operating their unusual fishing gear.

West Africa, 1,010,300; India, 961,000; United Kingdom, 897,000; Denmark and Faroe Islands, 758,000; Indonesia, 734,000; Iceland, 703,000; German Federal Republic, 619,000; France, 568,000.

FAO experts also estimated the value of international trade in fish and fish products at between \$1,300 million and \$1,400 million, an increase of about \$50 million over 1960.

International (Contd.):

Chief species taken during the 1961 fisheries harvest were the herring, sardine, and anchovy-type fish. These made up 12.6 million tons or almost one-third of the world catch, a rise of 2.3 million tons over 1960. The cods, hakes, and haddocks came in second place with 5.1 million tons reported. This represented an increase of 300,000 tons over the 4.8 million tons caught during 1960. Fresh-water fish accounted for 4.4 million tons of the world total, about the same quantity as caught in 1960.

Four million tons of mullets, jacks, and sea basses were taken in 1961, 200,000 above the 1960 catch. The 1961 total for mollusk and crustaceans was 3.2 million tons. Crustaceans include lobsters, shrimp, and crabs while mollusk include oysters, mussels, clams, and squid. The catch of tuna, bonitos, and mackerel rose from two million tons in 1960 to 2.1 million in 1961. Flounder, sole, halibut, and other flatfish caught rose from 1.2 million tons in 1960 to 1.3 million in 1961. The salmon, smelts, and trouts were up from 600,000 to 800,000 tons.

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ONE-QUARTER OF CATCH USED IN FISH MEAL AND OIL PRODUCTION:

Almost one out of every four tons of fish caught during 1961 was used for reduction to fish meal and oil, according to the Food and Agriculture Organization. Of a total 1961 world catch of 41.2 million metric tons, 9.6 million tons (or 23 percent) was used to make meal and oil for feeding animals. (The total of 9.6 million tons refers to the weight of live fish as they are taken from the water, not to the weight of finished oils and meals.)

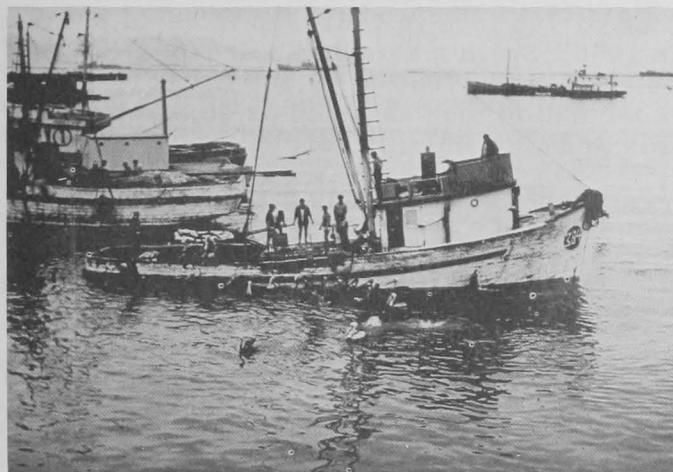


Fig. 1 - In Peru, anchoveta boat waiting to unload at the Port of Chimbote.

The 31.6 million metric tons remaining was used for human food in fresh, frozen, cured, or canned form. From canneries, freezing and filleting plants, smokeries and salting yards, one million tons of offal--raw material or waste from fish used primarily for other purposes--was also used for making meal and oil.

More fish, therefore, were reduced to oil and meal than in any previous year, the quantities of whole fish used rising by 2.1 million tons above the 1960 total of 7.5 million metric tons. World fish meal and oil production has doubled since 1956. Peru has accounted for the bulk of this increase.

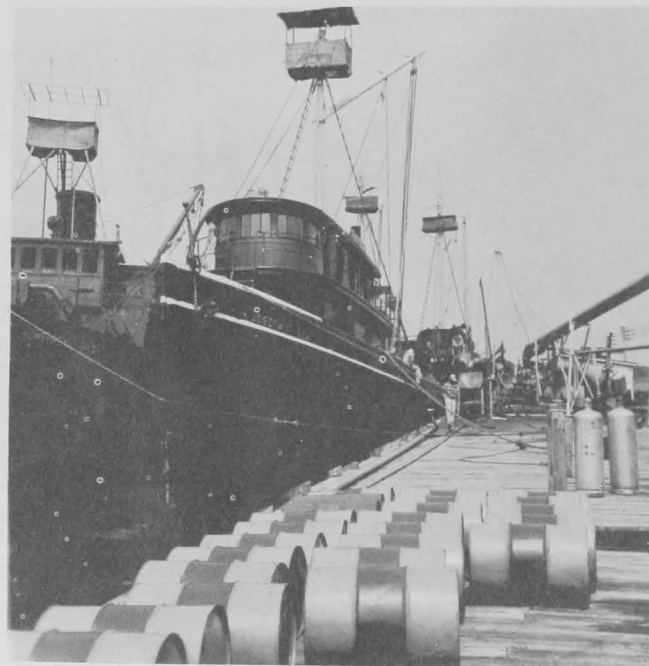


Fig. 2 - In the United States, a large menhaden fishing vessel at the Reedville, Virginia, dock of an industrial fish plant.

For the third straight year Peru led all other nations, with 5,012,100 tons--or better than 90 percent--of her total catch of 5,213,100 tons used to make meal. Peru's meal production, made from anchoveta, has multiplied by some 30 times since 1956.

Number-two fish meal producer was the United States with 1,067,800 tons of the 1961 fishery catch of 2,874,400 tons used for meal and oil. United States production has remained approximately steady for the past half dozen years.

Other nations during 1961 which used 100,000 or more tons of fish to make meal and oil were (in metric tons): Japan 843,300; Norway 754,800; South Africa and South-West Africa 467,600; Chile 337,600; Denmark 316,100; Iceland 229,900; and Canada 187,200.

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TUNA, BONITO, AND MACKEREL CATCH WAS UP IN 1961:

The world catch of tuna, bonito, and mackerel was 2.1 million metric tons in 1961, an

International (Contd.):

increase of 50,000 tons over the 1960 catch, according to the "Yearbook of Fisheries Statistics" issued in November 1962 by the Food and Agriculture Organization. World fishing of this group of fish has shown a tendency to rise steadily each year since 1956, when 1.7 million tons were landed.

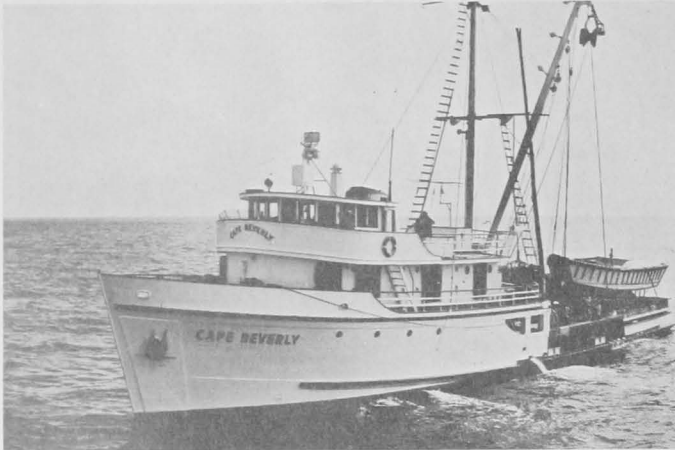


Fig. 1 - During the last two years in the United States, a large number of California tuna bait boats (pole-and-line fishing) have been converted to purse seiners. This is a typical California converted tuna purse seiner.

Japan, with 1,036,700 tons, accounted for just under one-half the 1961 world catch of tuna, bonito, and mackerel. In 1960 Japanese fishermen landed 930,400 tons.



Fig. 2 - Unloading frozen tuna from a California tuna purse seiner.

In second place came the United States with 175,000 tons, an increase of 15,200 tons over the 1960 catch but still under the 1956 high of 186,100 tons.

Peru was the number-three nation in fishing this group of fish in 1961 with a catch of 146,500 tons. Peru's 1960 total was 134,400

tons. The great bulk of the Peruvian catch was bonito.

India's catch of this group of fish dropped sharply--from 165,400 tons in 1960 to 73,300 tons in 1961. The Indian catch is made up mainly of mackerel and it was the drop from 133,700 tons of mackerel caught in 1960 to only 34,500 tons in 1961 that accounted for India's reduced 1961 catch.



Fig. 3 - In Libya, Mediterranean fishermen use set nets to catch tuna.

South Africa's 1961 catch of 61,800 tons was about 50 percent above the 1960 total of 38,200 tons. Practically all the South African catch was mackerel. The French catch of tuna, bonito, and mackerel dipped to 60,100 tons from 68,300 in 1960. China (Taiwan) took 51,700 tons in 1961--up from 44,300 tons in 1960. Spain's catch also dropped--from 56,400 tons in 1960 to 42,900 in 1961. No other nation took as much as 40,000 tons of this group of fish in 1961.

TRADE

JOINT UNITED STATES-JAPAN TRADE AND ECONOMIC COMMITTEE MEETING:

The White House in November 1962 announced plans for the second meeting of the Joint United States-Japan Committee on Trade and Economic Affairs, December 3-5, 1962, in Washington, D. C.

The White House announcement said that "the second meeting will afford a welcome opportunity to continue and build on the achievements of the first," which was held in Japan in November 1961.

The six Japanese Cabinet officers designated by Prime Minister Ikeda to attend the meeting, all of whom were appointed in July 1962 included the Minister of International

International (Contd.):

Trade and Industry, and the Minister of Agriculture and Forestry. The United States delegation consisted of the Secretary of State as Chairman of the meeting, Secretary of the Treasury, Secretary of the Interior, Secretary of Agriculture, Secretary of Labor, Acting Secretary of Commerce, and Chairman of Economic Advisers.

In the course of the daily sessions, the White House said, the Joint Committee would consider the two countries' current economic situations, financial, monetary, and balance of payments situations, economic growth, expansion of trade, and promotion of economic relations, trends in international trade and economic relations, and problems of economic development in the less developed countries.



Austria

AUSTRIA LIBERALIZES IMPORT REGULATIONS OF SOME FISHERY PRODUCTS:

Smoked and preserved fish may now enter Austria without a certificate of origin. The change in import regulations became effective when announced by the Austrian Ministry of Interior, November 1, 1962. Editor's note: Withdrawal of certificates of origin may improve the market in Austria for United States smoked and preserved fishery products. At present, very little fish is exported to Austria directly from the United States. It is believed that Austria has received some United States fishery products by transshipment from Germany and other countries.

Canned sardines in olive oil may enter Austria duty free between November 1, 1962, and January 31, 1963. The Austrian import duty on canned sardines in olive oil has been 6 percent ad valorem. The Austrian retail price of canned sardines in olive oil should be reduced by the tariff cut, which was effected by Ordinance No. 103,000-13/62 of the Austrian Finance Ministry.

Canned sardines in olive oil is the only fishery product included in the widespread Austrian tariff cuts of November 1, 1962. The import duty on some products was reduced for an indefinite period. Tariff reduc-

tion is part of the Austrian Government's price stabilization program. The Government wishes to give the consumer the benefit of tariff cuts. Importers who do not pass on the entire advantage of reduced customs duties will be compelled to pay the full import duties previously in effect. (United States Embassy, Vienna, November 9, 1962.)



Brazil

NORTHEAST BRAZIL'S WHALE CATCH, 1960-62:

A Japanese firm with two whale catcher vessels caught and processed in their Paraiba plant, 511 whales in 1960 and 521 whales in 1961.

Landings of Whales by Months in Northeast Brazil			
Month	1962	1961	1960
June	17	8	33
July	72	135	103
August	-	204	168
September	-	172	164
October	-	2	43
Total	89	521	511

The 1961 landings consisted of 501 sei whales, 8 humpback whales, and 5 sperm whales.

In the 1962 season the Japanese operated only one catcher vessel which landed 89 whales (mostly sei) as of July 15. The whaling grounds are located only 40-100 miles offshore from Paraiba. (United States Consulate, Recife, July 31, 1965.)

Editor's Note: Sei whales have low oil yield.



Canada

BRITISH COLUMBIA CANNED SALMON PACK REACHES HIGH LEVEL IN 1962:

The 1962 pack of canned salmon by the British Columbia canneries of close to 1.8 million standard cases (48-1-lb. cans) was up about 28.7 percent from the 1.4 million cases packed in 1961 and almost threefold the 1960 pack. In addition, the pack in 1962 exceeded the average pack for 1957-1961 by about 40.0 percent.

The pack of pink salmon in 1962 of close to 1.2 million cases was one of the best in

Canada (Contd.):

Pack of British Columbia Canned Salmon, 1957-1962

Species	1962	1/1961	1/1960	1/1959	1/1958	1/1957
(Standard Cases--48-1-Lb. Cans)						
Sockeye (red)	298,188	398,236	226,905	256,170	1,074,305	228,452
Spring (king)	7,069	7,927	5,913	15,230	10,550	10,481
Steelhead	818	979	500	867	1,205	1,126
Blueback	12,050	12,527	23,456	10,114	11,103	12,147
Coho (silver)	175,913	234,047	68,891	202,991	120,424	180,911
Pink	1,187,933	661,458	219,624	458,597	451,802	751,608
Chum (keta)	133,638	95,400	86,800	133,128	230,636	239,539
Total	1,815,609	2/1,410,574	2/632,089	2/1,077,097	1,900,025	1,424,264

1/Totals are based on final revised figures.

2/Includes fish canned from previous year's frozen stock.

many years and made up about 65.4 percent of the total salmon pack for the year. The pack of sockeye or red salmon in 1962 was fair, but disappointing from the standpoint of the vast numbers of spawners in 1958, the parent of the 1962 sockeye salmon stocks.

Note: See Commercial Fisheries Review, Nov. 1962 pp. 61-62, February 1962 p. 59, January 1961 p. 57, and February 1960 p. 69.

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SURCHARGES ON IMPORTS OF FISHERY PRODUCTS REMOVED:

All surcharges on fishery products imported by Canada were removed as of November 15, 1962. The removal of surcharges also applied to a long list of other imported food products.

Note: See Commercial Fisheries Review, September 1962 p. 67.

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PRODUCTION, UTILIZATION, AND FOREIGN TRADE IN MARINE-ANIMAL OILS, 1961 AND JANUARY-JULY 1962:

Production: Canadian production of marine-animal oils in 1961 was 77.1 percent above that in 1960, but only 17.0 percent above the 5-year average production in 1956-1960 (see table 1). The increase was due to greater production of herring oil in British Columbia. According to preliminary data, marine oil production on the Atlantic Coast in January-July 1962 amounted to 5,898,000

Table 1 - Canada's Production of Marine-Animal Oils, 1959-1961 and 1956-1960 Average

	1961	1960	1959	5-Year Avg. 1956-60
(1,000 Pounds)				
<u>Atlantic Production:</u>				
Cod oil	5,035	8,006	8,037	7,626
Other	4,998	4,589	4,358	5,934
Total	10,033	12,595	12,395	13,560
<u>British Columbia Production:</u>				
Herring oil	41,482	16,489	45,564	30,481
Total Production	51,515	29,084	57,959	44,041

pounds, as compared with 5,086,000 pounds in the same period of 1961. Herring oil production in British Columbia in January-July 1962 amounted to 16,356,000 pounds, as compared with 15,292,500 pounds in the same period of 1961. But 1962 fall and winter production of herring oil in British Columbia was not expected to equal that in 1961.

Use in Margarine and Shortening: The quantity of marine oils used in Canadian margarine and shortening in 1961 was much greater than in 1960. For margarine, usage was up 154.8 percent; for shortening, usage was up 121.3 percent (see table 2). The decided

Table 2 - Canada's Use of Marine-Animal Oils in Margarine and Shortening Production, 1959-1961 and 1956-1960 Average^{1/}

	1961	1960	1959	5-Year Avg. 1956-60
(Million Pounds)				
<u>Margarine:</u>				
Production	184.0	166.6	152.5	144.0
<u>Marine Oils:</u>				
Quantity used in margarine	31.6	12.4	12.8	15.8
Percentage of total oils used	21.3	9.1	10.4	13.8
<u>Shortening:</u>				
Production	167.4	164.4	160.9	159.6
<u>Marine Oils:</u>				
Quantity used in shortening	16.6	7.5	5.4	15.5
Percentage of total oils used	10.0	4.6	3.3	9.7

^{1/}Refined-oil basis.

switch in Canada from vegetable oils to marine oils for margarine production began in the second quarter of 1961. It has paralleled a decline in the price of marine oils. The prices of British Columbia herring oil delivered at Toronto, Canada, in 1961-1962 were (in Canadian cents per pound); 1961: April 9.92; September 8.12; 1962: January 7.67; April 7.67; and July 7.1.

Accelerated use of marine oils continued during January-July 1962, when marine oils accounted for 30.0 percent of total oils used in margarine as compared with 16.9 percent in the same period of 1961. Marine oils ac-

Canada (Contd.):

counted for 11.0 percent of total oils used in shortening in January-July 1962, as compared with 9.5 percent in the same period of 1961. The increase in the use of marine oils has been mainly at the expense of soybean oil.

Foreign Trade: Canadian imports of marine oils (mainly fish oil) in 1961 showed a large increase, while Canadian exports of marine oils slumped (see tables 3 and 4).

for herring oil. Herring oil exports dropped from over 23 million pounds in 1960 to less than one million pounds in 1961.

In January-July 1962 marine oil imports of 1,139,000 pounds were 68.4 percent below imports of 3,611,000 pounds in the same period of 1961. By type, marine oil exports in January-July 1962 (with comparable data for the same period in 1961) were: fish oil 1,011,000 pounds (3,334,000 pounds in 1961); cod-liver oil 18,000 pounds (141,000 pounds in 1961); and whale and sperm oil 110,000 pounds (136,000 pounds in 1961).

In January-July 1962, marine oil exports totaling 4,940,000 pounds were 10.9 percent below exports of 5,543,000 pounds in the same period of 1961. By type, marine exports in January-July 1962 (with comparable data for the same period in 1961) were: fish oil 126,000 pounds (725,000 pounds in 1961); cod-liver oil 4,221,000 pounds (4,809,000 pounds in 1961); whale oil 593,000 pounds (9,000 pounds in 1961). (U. S. Foreign Agricultural Service Report, Ottawa, October 5, 1962.)

Note: See Commercial Fisheries Review, July 1961 pp. 50-51.

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BEDFORD INSTITUTE OF OCEANOGRAPHY OPENS:

Canada's new center of marine sciences on the Atlantic Coast was officially opened on October 25, 1962. The main building contains 22,000 square feet of laboratory space that is fitted out with the latest in scientific equipment. The office wing contains 55 offices, a board room, a library, and a cafeteria. The building is designed to accommodate a staff of 300 scientists and supporting staff. About one third of the complement has been hired. Full complement is expected by 1965 and will include oceanographers, hydrographers, fisheries research scientists, geophysicists, underwater geologists, and engineers.



Bedford Institute of Oceanography.

Table 3 - Canada's Marine-Animal Oil Exports by Country of Destination, 1959-1961

	1961	1960	1959
	... (1,000 Pounds) ...		
Cod-Liver Oil, Pharmaceutical, Crude and Sunrotted:			
United States	5,883	6,829	6,484
United Kingdom	1,338	1,543	996
Others	3	-	3
Total	7,224	8,372	7,483
Herring Oil, Industrial:			
United States	444	60	564
United Kingdom	515	21,760	21,287
Netherlands	-	597	-
Western Germany	-	597	1,411
Others	-	14	-
Total	959	23,028	23,262
Whale Oil:			
United States	129	64	634
United Kingdom	-	-	1,822
Netherlands	-	-	942
El Salvador	-	-	815
Western Germany	-	-	582
Total	129	64	4,795
Other Fish Oils:			
United States	519	225	4
Others	17	1	1/
Total	536	226	4
Total Exports	8,848	31,690	35,544
1/Less than 1,000 pounds.)			

The increase in imports was due mainly to larger shipments of fish oil from the United States and Iceland. The decline in exports was due mainly to a loss of foreign markets

Table 4 - Canada's Marine-Animal Oil Imports by Country of Origin, 1959-1961

	1961	1960	1959
	... (1,000 Pounds) ...		
Cod-Liver Oil:			
United States	12	-	-
United Kingdom	917	1,353	2,099
Netherlands	-	-	30
Norway	48	122	71
Others	5	-	-
Total	982	1,475	2,200
Whale & Sperm Oil:			
United States	693	264	190
United Kingdom	350	298	40
Norway	96	67	68
Total	1,139	629	298
Other Fish Oils:			
United States	17,732	10,198	3,647
Japan	19	55	175
Iceland	12,711	-	-
Bahama Islands	948	-	-
Others	83	24	7
Total	31,493	10,277	3,829
Total Imports	33,614	12,381	6,327

Canada (Contd.):

Between the main building and the dock area is the depot building with equipment storage and staging areas for shipboard cruise material and instruments. It also contains workshops for carpenters, machinists, welders, and painters. The docking area beyond the depot building has an extensive loading area with berthing facilities for 10 vessels. It includes a 700-foot quay and a 500-foot jetty. There is room for future expansion to three jetties.

The Institute was built at a cost of C\$4.5 million and will house the scientists and engineers of both the Department of Mines and Technical Surveys and the Fisheries Research Board, who are studying Canada's Atlantic and sub-Arctic oceanic and estuarine areas.

The Institute will have one of the world's most modern fleet of research vessels. This fleet will comprise the East Coast vessels of the Canadian Hydrographic Service, the vessels of the Atlantic Oceanographic Group of the Fisheries Research Board, and four new vessels, the largest of which will be the \$6.5 million C.G.S. Hudson. The Hudson will work mostly in the Atlantic and Arctic areas; however, in line with Canada's policy of co-operation in international programs, Canadians expected that she will also participate in international oceanographic expeditions anywhere in the world.

Note: See Commercial Fisheries Review, October 1962 p. 48.

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ATLANTIC COAST SEA-SURFACE ENVIRONMENTAL CHARTS:

An important advance in the rapidly developing science of oceanography in Canada is the regular production, in RCN Dockyard at Halifax, of charts depicting oceanographic conditions off Canada's east coast. At present used mainly by the research worker, the charts may well prove valuable in the future to fisherman in the location of new fishing grounds.

The charts are somewhat similar to weather maps since they depict sea-temperature distribution, variation of sea temperatures, etc. They represent the first Canadian effort to present data on short-term changes in the characteristics of the temperate seas bordering Canadian coasts. They are produced in the RCN Dockyard from re-

ports of observations, made and sent by radio, from ships and/or units of a number of Federal agencies: the Royal Canadian Navy, the Royal Canadian Air Force, Defense Research Board, Fisheries Research Board, and the Department of Mines and Technical Surveys, and from United States vessels as well.

Naval ships, government survey vessels, etc., by prearrangement, make bathythermographic observations. They radio their findings to the Dockyard which receives hundreds of reports a month from all parts of the northwest Atlantic Ocean. In the case of sea-surface temperature, some 200 reports are received daily.

By showing changes in sea temperature, the charts should prove most useful to fisherman. The cod fishing grounds in the northwest Atlantic, for instance, shift from year to year, and those movements are apparently associated with changes in temperature. With more study it should be possible to use the charts to indicate the probable direction of those movements.

The new Bedford Institute of Oceanography will be a valuable new source of assistance in the production of the charts. Not only will the Institute direct research to developing improved methods of processing the data for the charts but its ships will be additional sources of information on the waters in which they work.

* * * * *

NEW FISHERIES RESEARCH VESSEL FOR WEST COAST:

The G. B. Reed, newest and largest of Canada's fisheries research vessels on the Pacific coast, underwent trials and was due to be handed over to the Fisheries Research Board of Canada this fall, the Parliamentary Secretary to the Fisheries Minister announced on October 19, 1962.

Launched in June 1962, the G. B. Reed is a sistership to the research vessel A. T. Cameron which has been carrying out widespread scientific operations in the North Atlantic Ocean for the past four years.

Built in Esquimalt, British Columbia, the vessel brings to the Board's scientists in the Pacific Area the benefits of a specially designed and modern floating laboratory for their work in studying the fishery resources of the Northeast Pacific Ocean.

Canada (Contd.):

The new vessel has a range of 8,500 miles, accommodations for 9 scientists and 5 laboratories furnished with the latest in scientific equipment. With the great impetus that has occurred in the Pacific fisheries in the past decade, the G. B. Reed is slated to play a prominent role in maintaining Canada's position in world fishing affairs. (Canada's Department of Fisheries, Ottawa, October 19, 1962.)

Note: See Commercial Fisheries Review, December 1962 p. 64.



Chile

FISH MEAL INDUSTRY EXPANSION:

An annual production of 600,000 metric tons of fish meal at Iquique, Chile, by 1965 is one of the goals of Corporacion de Fomento de la Produccion de Chile (CORFO), a national development corporation. During October 1962, the Council of CORFO ceded 35,360 square meters of land in the port area of Iquique for another fish meal plant. The Inter-American Development Bank, according to a local report, has approved \$5 million in credits for this purpose. The General Manager of CORFO has expressed satisfaction at the progress being made in Iquique in the development of the fishing industry. In addition to fish meal, the 1965 annual production goals at Iquique include 37,000 tons of canned fish, 30,000 tons of frozen fish, and 120 tons of fish and shellfish for local consumption. If the objectives are realized, Iquique would earn about \$70 million a year in foreign exchange, according to the General Manager.

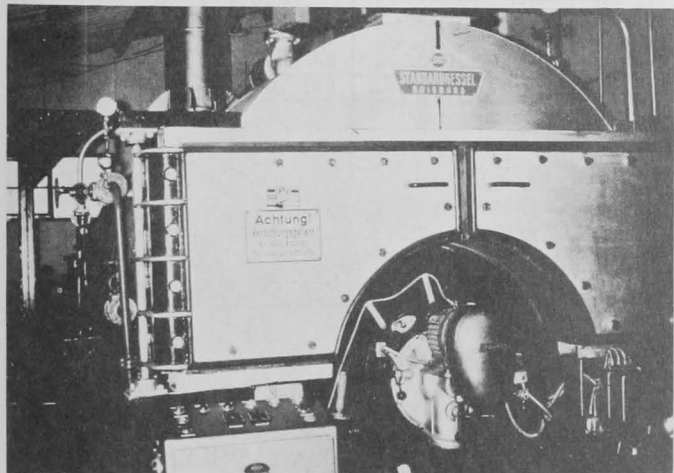


Fig. 1 - Boiler room of fish meal plant in San Antonio, Chile.



Fig. 2 - Fish meal being bagged at a fish meal plant in San Antonio.

Expansion of fish meal production in other ports in northern Chile is also planned. A Canadian firm recently requested authorization for the construction of a fish meal plant in Tocopilla, Chile. (United States Consulate, Antofagasta, October 31, 1962.)



Denmark

FISH FILLETS AND BLOCKS AND FISHERY INDUSTRIAL PRODUCTS EXPORTS, JANUARY-OCTOBER 1962:

Denmark's exports of fresh and frozen fillets and blocks during the first ten months of 1962 were 18.9 percent greater than in the same period of 1961, mainly because of an increase of 120.7 percent in exports of herring fillets. Exports of flounder and sole fillets increased 9.6 percent, but exports of cod and related species declined 5.3 percent. During the first ten months of this year exports to the United States of fresh and frozen fillets and blocks of about 10.6 million pounds (mostly cod and related species) were up from the exports of about 10.0 million pounds in the same period of 1961.

Denmark's Exports of Fresh and Frozen Fish Fillets and Blocks and Fishery Industrial Products, Jan.-Oct. 1962 ^{1/}				
Product	October		Jan.-Oct.	
	1962	1961	1962	1961
..... (1,000 Lbs.)				
Fillets and Blocks:				
Cod and related species	1,907	1,406	25,840	27,286
Flounder and sole	3,383	2,781	24,546	22,389
Herring	3,809	1,619	20,311	9,201
Other	66	103	553	1,030
Total	9,165	5,909	71,250	59,906
..... (Short Tons)				
Industrial Products:				
Fish meal, fish solubles, and similar products . .	6,431	5,590	59,816	45,081

^{1/}Shipments from the Faroe Islands and Greenland direct to foreign countries not included.

Denmark (Contd.):

Denmark's exports of fresh and frozen fish fillets and blocks during October 1962 were 55.3 percent above exports in the same month in 1961. Of the total exports, about 836,000 pounds (mostly cod and related species) were shipped to the United States in October 1962 as against 431,000 pounds in the same month in 1961. The leading buyers of frozen fillets in October 1962 were West Germany and the United Kingdom.

Denmark's exports of fish meal, fish solubles, and similar products in January-October 1962 were 32.7 percent greater than in the same period a year earlier. Exports to the United States during the same period were 110 tons in 1962 as against 28 tons in 1961.

During October 1962, Denmark's exports of fish meal, fish solubles, and similar products were 15.0 percent above the amount shipped out in the same month of 1961. The principal buyers were the United Kingdom, Finland, and West Germany.

* * * * *

FISH FILLETS AND BLOCKS AND FISHERY INDUSTRIAL PRODUCTS EXPORTS, JANUARY-SEPTEMBER 1962:

Denmark's exports of fresh and frozen fillets and blocks during the first nine months of this year were 15.0 percent greater than in the same period of 1961, mainly because of an increase of 117.6 percent in exports of herring fillets. Exports of flounder and sole fillets increased 7.9 percent, but exports of cod and related species declined 7.5 percent. During the first nine months of this year exports to the United States of fresh and frozen fillets and blocks of about 9.8 million pounds (mostly cod and related species) were up from the exports of about 9.5 million pounds in the same period of 1961.

Denmark's exports of fresh and frozen fish fillets and blocks during September 1962 were 1.1 percent above exports in the same month in 1961. Of the total exports, about 168,000 pounds (mostly cod and related species) were shipped to the United States in September 1962 as against 378,000 pounds in the same month in 1961. The leading buyers of frozen fillets in September 1962 were the United Kingdom and the Federal Republic of Germany.

Denmark's Exports of Fresh and Frozen Fish Fillets and Blocks and Fishery Industrial Products, Jan.-Sept. 1962 ^{1/}				
Product	September		Jan.-Sept.	
	1962	1961	1962	1961
 (1,000 Lbs.)			
Fillets and Blocks:				
Cod and related species . . .	1,356	1,484	23,933	25,880
Flounder and sole	3,265	3,996	21,163	19,608
Herring	2,560	1,594	16,502	7,582
Other	10	40	487	927
Total	7,191	7,114	62,085	53,997
 (Short Tons)			
Industrial Products:				
Fish meal, fish solubles, and similar products . . .	4,730	5,957	53,385	39,491

Denmark's exports of fish meal, fish solubles, and similar products in January-September 1962 were 35.2 percent greater than in the same period a year earlier. Exports to the United States during the same period were 110 tons in 1962 as against 28 tons in 1961.

During September 1962, Denmark's exports of fish meal, fish solubles, and similar products were 20.6 percent below the amount shipped out in the same month of 1961. The principal buyers were the United Kingdom, Finland, and West Germany.

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FISHERIES TRENDS, JANUARY-SEPTEMBER 1962:

Landings: Landings of fish and shellfish at Danish ports during the first nine months of 1962 were 18 percent greater than the previous year and 9 percent larger than the record year (1959) for the same periods. With normal weather, the total 1962 catch was ex-



Fig. 1 - Gammel Strand fish market in Copenhagen. Live eels and plaice are sold in this market. Copenhagen is a market for fishery products rather than an important fishing port.

Table 1 - Danish Fishery Landings, January-September 1962 with Comparisons

Species	1962	1961	1/1959
..... (Metric Tons)			
<u>Landings in Denmark by</u>			
<u>Danish Vessels:</u>			
<u>Salt-Water Fish:</u>			
Plaice, dabs, & flounders	41,100	38,600	27,300
Cod	48,200	50,600	47,300
Herring	196,100	186,600	198,100
Other salt-water fish ^{2/}	275,800	198,200	236,700
Total salt-water fish	561,200	474,000	509,400
<u>Fresh-Water Fish and</u>			
<u>Shellfish:</u>			
Pond trout	5,700	5,700	4,900
Fresh-water fish	2,500	2,500	2,400
Mussels & starfish	10,800	8,800	18,500
Shrimp, lobsters, etc. ^{3/}	5,100	4,400	3,300
Total fresh-water fish and shellfish	24,100	21,400	29,100
Total fish and shellfish	585,300	495,400	538,500
<u>Landings in Denmark by</u>			
<u>Foreign Vessels</u>	77,000	41,900	54,400
<u>Danish Landings in Foreign</u>			
<u>Ports of:</u>			
United Kingdom, Sweden, & Holland	5,500	7,100	4,400

^{1/}Year of record total catch of 667,800 metric tons.

^{2/}Mostly industrial fish.

^{3/}Mostly deep-water shrimp and Norway lobsters.

Source: Preliminary data from Ministry of Fisheries.

Denmark (Contd.):

pected to surpass 700,000 metric tons and easily establish a new record. The increased landings of industrial fish for fish meal and oil and for brook and rainbow trout and animal food were 16 percent greater than in 1959, reflecting the recovery of the reduction industry as world market prices for fish meal improved.

Exports: For the first nine months of 1962 exports were up 19 percent in value and 11 percent in volume as compared with the same period of 1961 (a record year). The largest gains occurred in exports of fresh and frozen herring, canned fish, and fish meal.

Exports to Common Market and EFTA Countries: The value of Danish fishery exports taken by Common Market (EEC) and European Free Trade Association (EFTA) countries increased in 1962 as compared with the first nine months in 1961, but the 38-percent gain in the Common Market countries was so much greater that they now are significantly better customers than Denmark's EFTA partners.

Exports to United States: Danish fishery exports to the United States for the first nine months of 1962 were 14 percent greater in value than for the same period in 1961--about the same increase as in the EFTA countries. Canned herring accounted for the major share of the gain, stimulated by the short Maine

Table 2 - Danish Fishery Products Exports, January-September 1961/62

Products	1/1962			1961		
	Quantity	Value		Quantity	Value	
	Metric Tons	1,000 Kroner	US\$1,000	Metric Tons	1,000 Kroner	US\$1,000
To all countries	213,700	404,600	58,663	191,800	338,900	49,137
To United States:						
<u>Fresh and Frozen Fillets:</u>						
Cod	4,300	13,100	1,899	4,100	12,200	1,769
Flatfish	1/	100	15	1/	200	30
Other salt-water fish	300	1,800	261	300	1,400	203
Pond trout and eggs	600	4,600	667	800	6,200	899
Lobsters	200	4,500	652	200	3,300	478
Others	1/	1/	1/	100	100	15
Total fresh and frozen exports to U. S.	5,400	24,100	3,494	5,400	23,400	3,394
<u>Processed:</u>						
Semipreserves	1/	100	15	1/	100	15
<u>Canned:</u>						
Herring and brisling	1,400	5,500	797	600	2,400	348
Other	200	1,500	217	100	1,100	159
Others	200	200	30	300	600	87
Total processed exports to U. S.	1,800	7,300	1,059	1,000	4,200	609
Total exports to U. S.	7,200	31,400	4,553	6,500	27,600	4,003

1/Less than 50 metric tons.

Note: One Danish krone equals about US\$0.145.

Source: Ministry of Fisheries.



Fig. 2 - Tuna fishery in Øresund. Bluefin tuna landings in Denmark vary considerably from year to year. Most of the catch is made in the North Sea.

sardine pack in 1961. In view of the normal Maine sardine pack in 1962 and lower United States prices this fall, Danish sardine canners do not expect to maintain the same sardine exports to the United States. Frozen lobster tail exports increased about one-quarter in quantity and one-third in value. Cod fillet exports were up only slightly in quantity and value. Pond trout exports to the United States are continuing to decrease with better markets and prices available in Europe.

Vessels Using Boom Trawl: A number of Esbjerg cutters probably will follow the lead of three vessels from that port which have successfully adopted the Dutch boom trawl for catching sole. This type gear is relatively unknown in Denmark, but has been used

Denmark (Contd.):

for years by Dutch and German vessels. It consists of two trawls which are fished simultaneously from 23-foot booms, one off each side of the vessel. The trawls are towed with the booms horizontal, but are hauled in with the booms in a vertical position. The trawls are fished with and against the tide for about one hour. One Danish vessel made 4 tows in 7 hours, catching 823 pounds of sole. German vessels also have used the gear with good success for plaice. Rigging a vessel with the new gear costs US\$1,305-\$1,450, which is less costly than a Danish seine. The gear is not legal for use within the Danish three-mile limit. Opinions are divided as to its effect on the bottom and young fish but it fishes well and the quality of the catch is excellent. Fishermen averaged 32.1 U. S. cents a pound for sole in 1961 as compared with a record average of 38.2 cents in 1958.

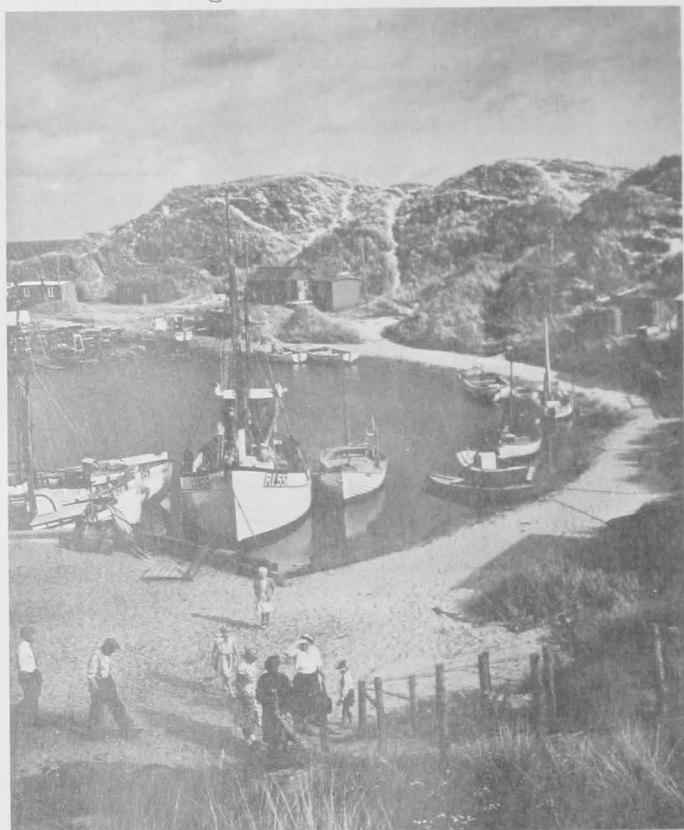


Fig. 3 - Hvide Sande, a Danish fishing port. Its fishing craft, such as the RI.55 catch mostly plaice and herring.

"Bubble Curtain" Used with Eel Traps: Preliminary experiments with eel gear using a "bubble curtain" to divert or guide the eels into traps has been encouraging in tests sponsored by the Danish Fisheries Association and Fisheries Ministry personnel. A

perforated plastic hose and an air compressor produce a wall of bubbles which replaces the line of stakes normally installed between the traps. Catches have been about the same with the new device as with control gear in the same area. If further experimentation confirms the initial success there should be considerable savings in the cost and upkeep of the stakes used with the present gear.

Minimum Prices and Size Limits: The establishment of minimum prices and minimum size limits for plaice, long stalled by the inability of the two largest fishermen's organizations to agree on a submission to the Fisheries Ministry, is moving off dead center again. The Danish Fisheries Association now is planning to proceed without the cooperation of the West Jutland Association, although requesting the concurrence of the latter's two largest units in Esbjerg and Hirtshals. A minimum size limit of 270 millimeters ($10\frac{5}{8}$ inches) and a minimum price of 6.9 U. S. cents a pound were the earlier goals. Now some are mentioning a minimum price of 7.9 cents a pound, the price recently guaranteed a large cooperative of producers by a large filleting plant in Fredericia in East Jutland.

The advent of minimum prices for plaice undoubtedly will be followed by requests for similar action on other marine species.

Fishermen in Skagen, the principal Danish shrimp port, have proposed for discussion in the Fisheries Commission a minimum price of 17.1 cents a pound for deep-water shrimp, and that all shrimp be sold at auction. The average auction price last year was 19.8 cents a pound. Some vessels now contract to sell their catches outside the auction to shrimp canneries for 13.2-16.5 cents a pound.

Cutters Sought by Philippine Fisheries Ministry: Eight Danish cutters of about 100 gross tons each have been offered the representative of the Philippine Fisheries Ministry during a visit to Copenhagen to seek fishing vessels for his country. Prices asked are reported to be between US\$87,000 and \$101,500. A new 80-ton cutter now costs over US\$145,000. Danish fishermen would sail the cutters to the Philippines and remain for several months to teach the local fishermen Danish fishing techniques. Earlier negotiations for Danish cutters initiated by a United States fishing company in the Philippines fell through because the Danish fishermen, who were to remain in the Philippines for two years, believed too much economic risk was involved.

Denmark (Contd.):

International Fisheries Fair in 1964: The Fifth International Fisheries Fair to be held in Copenhagen, September 11-20, 1964, will be supported officially by the Fisheries Council, an association of Danish fishery associations. It is reported that 80 percent of the exhibition area already has been reserved by previous exhibitors.

Seaworthiness of Steel Cutters Questioned: Denmark's largest steel cutter, Nina Nordfish (193 gross tons) capsized and sank in heavy weather in October 1962 with a loss of three lives. Three similar cutters and 14 of their crew members were lost in a February 1962 storm. On November 19, a fifth steel cutter, fully loaded with industrial fish, sank after drifting two days with a 40 degree list. It is reported that the cutters do not right themselves readily when struck by a cross sea. Numerous other cutters have had this difficulty besides those which were lost. An earlier request for initiating an immediate investigation of their seaworthiness was not approved by the Government because of the financial situation. It was suggested it be delayed until the 1963/64 fiscal year. A renewed request for immediate action is now up for consideration. A Professor of the Polytechnical Teachers College has developed plans to carry out the stability and model tests which will cost US\$13,775 and take about a year. He recently concluded tests of wooden cutters which demonstrated that their stability is adversely and seriously affected when they are heavily loaded, and heading into heavy seas at 5 or 6 knots.

Of the approximately 1,200 Danish cutters over 20 gross tons, about 100 are steel cutters built in the last 5 or 6 years and are mostly in the 100-ton category. The change from the traditional wood cutters was made to get more fishing days per year, a greater radius of action, larger hold capacity, and more earning power. Critics of the vessels claim their difficulties are due to too powerful engines, faulty maneuvering, inadequate ballast, too high a center of gravity because of the large pilothouse and superstructure, and an inability to shed quickly the water coming aboard from large seas.

Porpoise Research: Research on the sense organs of porpoises or dolphins, financed by a North American Treaty Organization grant, is under way in a blocked-off

oil refinery harbor in the northwest corner of the Danish island of Fyn. The investigations have military applications, but the scientists are quoted as saying that successful research could lead to new forms of fishing by teaching porpoises to herd fish into schools and drive them into the fishermen's nets. The research was begun several years ago by scientists of the Marine Biological Institute, Den Helder, Holland and the French Laboratoire Acoustique Animal. When efforts to bring living porpoises to their laboratories failed, they began the research in Denmark near an area where porpoises are abundant.

Four porpoises have been captured and are in the basin, tame enough to take herring by hand. Six or eight more were expected to be caught. Nets are used to capture and prevent any damage to the mammals, such as might be caused by darts which would render the porpoises unconscious. (Regional Fisheries Attache for Europe, Copenhagen, reports of November 7, 14, and 21, 1962.)

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SALMON FISHERY IN EASTERN BALTIC SEA:

Salmon are caught in the Eastern Baltic Sea by fishing fleets from Denmark, Sweden, Finland, Poland, and West Germany. The Danish fleet of about 150 cutters took 1,410 metric tons (3.1 million pounds) of salmon during the past season (July 1961-June 1962). This is about three-fifths of the total catch. According to a Fisheries Ministry biologist, the Danish salmon catch in 1961/62 not only is the best since records on total catch became available in 1952/53 but probably the greatest ever reported.

Season	1,000 Lbs.	Season	1,000 Lbs.
1961/62	3,102	1956/57	2,358
1960/61	2,730	1955/56	1,417
1959/60	1,637	1954/55	2,132
1958/59	2,435	1953/54	1,630
1957/58	1,674	1952/53	1,888

Landings are concentrated in the fishing ports of Bornholm (the small Danish island just south of the lower end of Sweden), but the cutters making up the fleet come from ports all over Denmark. Most of the Danish catch is taken on hooks, but there is a drift-net fishery when the weather is good. Although some anchored long lines are used,

Denmark (Contd.):

the greater number are drifted in the open Baltic Sea. The salmon season for the Danish cutters may begin as early as August, but the best fishing months are October to January. Over 68 percent of the catch was taken during those months in the 1961/62 season. A typical 40-ton Danish cutter carries a crew of four and fishes from September or October to about May.

Table 2 - Monthly Danish Catches in Eastern Baltic Sea, 1961/62 Season (Drawn Weight)

Month	1,000 Lbs.	Percent	Month	1,000 Lbs.	Percent
July . . .	-	-	January	440	14.1
August	8	0.3	February	190	6.1
September	129	4.2	March	274	8.8
October	342	11.0	April	185	6.0
November	638	20.6	May	133	4.3
December	705	22.7	June	58	1.9

The long-line gear used in the salmon fishery consists of a main line (each 16 to 20 meters or 52 to 66 feet) to which are attached nylon gangions and hooks. From 1,500 to 2,000 hooks are used and more than 30 kilometers (18.6 miles) of line may be set out. Bait must be of the best quality. One frozen hornfish will make bait for 5 to 7 hooks. Large frozen brisling, available about Christmas, are better bait and herring also are used. The hooks are baited and the long line is set in the dark as the salmon bite best at daybreak. Also, the poorer the weather the better they bite, so gear may be set in a gale wind. The set begins with the setting of a buoy which is followed by other buoys at intervals of every 80 hooks, seldom less than 25 in all. Each buoy carries a consecutively numbered flag and often is supplied with a battery-powered electric lamp. When the set is completed the gear in the water is valued at 9,000-10,000 kroner (US\$1,305 to \$1,450).

The gear is hauled about noon or 1:00 p.m., a task often taking 9 or 10 hours. Since fishing occurs in waters heavily traveled by vessel traffic, gear often is lost in whole or in part. Practically all the cutters carry navigating equipment in order to pinpoint their positions when setting and picking up the gear. The hooked salmon are taken on board with a net and handled carefully to avoid bruising. They are eviscerated immediately and packed in ice. Salmon already hooked on the long line often are taken by the numerous seals and occasional porpoises.

From a sample of 16 cutters which took 5.4 percent of the total catch in the 1961/62

season, Danish biologists reported that 16.5 salmon were taken per 1,000 hooks. The average price to the fisherman for all Danish catches of salmon (drawn weight) during the calendar year of 1961 was 13.33 kroner a kilo (88 U. S. cents a pound) as compared with 14.54 kroner a kilo (96 U. S. cents a pound) in 1960, the record year for prices.

At the beginning of the 1962/63 season there seemed to be abundance of small salmon weighing 2.2 to 4.4 pounds. Salmon weighing 5½ to 11 pounds seemed to be few in number, but the 11 to 19.8 pounds size was abundant. The largest salmon taken weigh mostly 22 to 24.2 pounds with occasional giants weighing 39.6 to 44 pounds each.

Table 3 - Size Distribution of Danish Catch of Salmon, 1961/1962 (Drawn Weight)

Market Categories:			
Kilos	Pounds	Number	Percent
9 and over	19.8 and over	12,000	3.3
7 - 9	15.4 - 19.8	24,600	6.8
5 - 7	11.0 - 15.4	37,600	10.4
3 - 5	6.6 - 11.0	162,000	44.9
1 - 3	2.2 - 6.6	124,700	34.5
Under 1	Under 2.2	200	0.1
Total		361,100	100.0
Average weight:			
3.9		8.6	

Danish exports of fresh salmon go mostly to Sweden, Switzerland, Finland, Norway, and West Germany. Exports of frozen salmon are taken mainly by France, Norway, Switzerland, and the United Kingdom. (Regional Fisheries Attache for Europe, U. S. Embassy, Copenhagen, November 14, 1962.)



Ecuador

NEW TARIFF SCHEDULE RAISES DUTIES SHARPLY ON U. S. CANNED FISH:

The increased duties provided in the new Ecuadorean tariff schedule (effective July 2, 1962) on imports of sardines and salmon are clearly protectionist. Possibilities for obtaining a reduction in duties on sardines are not considered good due to Government of Ecuador interest in promoting the domestic fish industry. Although there are no sardines in Ecuadorean waters, the local products "tunalette" (tuna) and mackerel appear to be accepted substitutes on the Ecuadorean market.

The effects of the new Ecuadorean customs schedule on the imports into Ecuador of United States canned pilchards or sardines is com-

Ecuador (Contd.):

plicated by the fact that the 1962 schedule has changed the classifications in this category, so that exact comparison or determination of the effects of the new schedule is impossible.

Under the former schedule, "sardines and salmon" (Section 120) comprised one classification, which was assessed a duty rate of 5 sucres^{1/} per net kilo (about 12.5 U. S. cents a pound) plus a 20 percent ad valorem duty. In 1960, total imports in that category had an f.o.b. value of 5 million sucres (US\$275,028) of which imports from the United States accounted for approximately 4 million sucres (US\$220,022). According to Anuario de Comercio Exterior, total duties paid on United States imports in 1960 amounted to about 4.9 million sucres (US\$269,527). In 1961, total imports were valued at 2.6 million sucres (US\$143,014) and United States imports paid duties also amounting to 2.6 million sucres (US\$143,014).

The former schedule also carried a classification of "prepared fish, others" which included tuna and carried a rate of 18 sucres per net kilo (about 44.9 U. S. cents a lb.) plus a 20 percent ad valorem duty. Total imports amounted to 155,000 sucres (about US\$8,526) f.o.b., of which, United States imports were about 115,000 sucres (\$6,327). Duties imposed on United States imports amounted to about 175,000 sucres (US\$9,626).

The classifications and duty rates under the 1962 schedule (Section 120) are as follows: Sardines, 12 sucres per net kilo (29.9 U. S. cents a lb.) plus 10 percent ad valorem; Salmon, 7.50 sucres per net kilo (18.7 U. S. cents a lb.) plus 10 percent ad valorem; Tuna, 18 sucres per net kilo (44.9 U. S. cents a lb.) plus 20 percent ad valorem; and Prepared fish, others, 15 sucres per net kilo (37.4 U. S. cents a lb.) plus 10 percent ad valorem.

A rough estimate of the differences in duties may be obtained from the following: The classification "sardines and salmon" accounted for total duties of 4.9 million sucres (US\$269,527) in 1960. Assuming that the largest percentage of imports in that category was for sardines, and calculating on the basis of 1960 import figures, duties paid on sardines under the July 1962 import schedule would amount to 10.3 million sucres (US\$566,556), or more than double previous figures.

^{1/}Values converted at rate of 18.18 sucres equal US\$1.

There are no appreciable changes in duty rates on other fish products. "Crustaceans and mollusks" (Section 121 of the new schedule) shows no change in rates. Exact comparisons with Sections 19, 20, and 21 of the old schedule is impossible because of changed classifications. In any event, 1960 imports from the United States were minimal, totaling only 3,800 sucres (US\$209) for both categories of fresh fish and smoked fish. The new schedule makes specific provision for the free entry of breeding stock.

One of the specific intents of the 1962 customs schedule has been to provide rates which will make attractive the establishment of new industries or which will give impetus to the further development of existing industry. The Director of the Tariffs Section of the Ministry of the Treasury states that the new tariffs on fish products are frankly protectionist and are expected to reduce greatly importation of sardines, the principal fish import into Ecuador. According to Treasury calculations the full tariff incidence on sardines and salmon under the old schedule was 117 percent on f.o.b. value whereas under the new schedule the tariff on sardines is 251 percent and on salmon 161 percent. The tariff on tuna remains the same at 250 percent f.o.b. value. The recently established 40-mile restricted fishing zone is an indication of pressures being exerted for development of the domestic fishing industry.

It is doubtful that a more favorable duty for the importation of United States canned sardines can be obtained. A wholly-owned subsidiary of a United States firm is producing and is marketing a so-called "tunalette" which is cut and packaged in a form similar to sardines and which appears to be fully competitive with imported sardines. There also are three small canneries in Guayaquil canning mackerel, also a sardine substitute. It seems probable that attempts will be made to continue to develop this portion of the industry which will, for the time being, meet local demands, even though not producing true sardines. Until a greater demand develops, local production will probably be considered sufficient to meet the local demand and it can be expected that imports of canned fish from the United States will show additional declines as the result of the new schedules. (United States Embassy in Quito, September 12, 1962.)



Faroe Islands

FISHERY TRENDS, NOVEMBER 1962:

New Filleting Plant to Export to U. S.:

The first large fish filleting plant in the Faroe Islands will be completed early in 1963. Its production will be exported primarily to the United States and Great Britain. The plant is being constructed as a part of the largest fishing activity in the islands. It is being equipped with the most modern filleting and freezing equipment, and will produce 100 metric tons of quick-frozen fillets each 24 hours. The storage capacity will be 2,000 tons. The firm's fleet of smaller vessels will supply the plant with raw material, mainly fish from home waters.

Frozen Fillet Exports Up in First Nine Months: Exports of frozen fillets during the first nine months of 1962 were valued at 2,200,000 kroner (US\$319,000), 41 percent greater than for the same period in 1961.

Sales of fresh fish to the British market totaled 16,700,000 kroner (US\$2.4 million), 9 percent less than in 1961, because most of the new steel vessels entered the fishery later than usual after making salt-fish trips to Greenland.

In the last 12 months the Faroese fleet has increased by 14 new steel vessels (3,500 gross tons), according to a report of November 21 from the Regional Fisheries Attache in Europe, United States Embassy, Copenhagen.



Fiji Islands

TUNA BASE PLAN:

Plans for the establishment of a joint Japanese-British tuna base at Levuka, Fiji Islands, initially proposed by a Japanese Diet member affiliated with the Democratic-Liberal Party, have been completed and the Japanese Fisheries Agency is expected to approve the venture. The base is being established jointly by Japanese and British interests.

Reportedly, the Fijian tuna base is initially likely to be granted a tuna production quota of 5,000-6,000 metric tons. The South Pacific Ocean Fisheries Cooperative, which is to manage the venture, is said to have already

completed arrangements with practically all of the owners of 15 surrounding-net fishing vessels (whose vessels were withdrawn from the depressed coastal surrounding-net fishery and who were granted licenses to construct 100-ton tuna vessels in their places) to fish for tuna out of its Fijian base. In addition, the Cooperative hopes to obtain special licenses to construct additional tuna vessels under 100 tons gross for assignment to the Levuka base.

Earlier press reports indicated that the Fijian Government, in hopes of encouraging the establishment of the base, was reported to be willing to grant 7-year resident permits to Japanese fishermen, technicians, and their families emigrating to the Fiji Islands, and also would grant special tax considerations. According to those reports, the base facilities would include a cannery and cold-storage facilities, and thirty 99-ton tuna vessels would be assigned to the base during its first year of operation. (Suisan Tsushin, November 21, 1962, and other publications.)



France

ENTRY HELD UP OF MOROCCAN FROZEN SARDINES:

A shipment of frozen Moroccan sardines to France in October 1962 was placed in port storage until the French Sardine Marketing Authority decides whether to permit entry. The shipment was Morocco's first attempt to resume exports of frozen sardines to the important French market since shipments were suspended in July 1962. The shipment resulted in renewed though nonviolent objections by fishermen in the French port. Frozen tuna from Morocco was included with the shipment of frozen sardines. The frozen tuna was allowed entry by France. (United States Embassy, Rabat, November 9, 1962.)



German Federal Republic

FINANCIAL DATA ON STERN-TRAWLER FACTORYSHIPS:

The following financial data on West German stern-trawler factoryships were obtained from trawler companies and shipyards in West Germany:

Private Financing: Most trawler operators normally are able to finance about 20 to 40 percent of the cost of new ves-

German Federal Republic (Contd.):

sels, while banks provide for a little over 50 percent. The remainder of the cost is sometimes paid by the bank and guaranteed by the local government.

Government Subsidies: Trawler operators in the port of Bremerhaven stated that financial assistance for vessel construction from the Federal Government consisted of the following:

(1) A loan of up to 25 percent of the ship's total cost, with a maximum payment of DM 1.5 million (US\$375,000), at 4 percent interest for 14 years (repayable only when the vessel operates at a profit). The total Government appropriation for this purpose in 1962 was only DM 8 million (US\$2 million).

(2) Government assumption of up to 3 percent of the interest rate paid by vessel operators on bank loans for those vessels which lost money in 1960 and 1961 and which foresee a loss in 1962. Only 3 or 4 trawler operators are reportedly eligible for such assistance.

(3) The scrapping premium of DM 400 (US\$100) per ton for obsolete vessels; however, an average of only DM 160,000 (\$40,000) is paid per vessel.

Construction Costs: The estimated composition of shipyard construction costs were:

- (a) Labor - 30-35 percent.
- (b) Materials - 35-50 percent.
- (c) Machinery - 20-30 percent.

Gear and equipment cost estimates for stern-trawler factoryships were:

- (a) Fishing gear - DM 50,000-150,000 (US\$12,500-37,500)
- (b) Freezing equipment - DM 180,000-500,000 (US\$45,000-125,000)
- (c) Processing equipment - DM 200,000-400,000 (US\$50,000-100,000)

Equipment for beheading, filleting, and skinning ocean perch and cod is installed on some stern-trawler factoryships.

Operating Costs: A breakdown of crew wages was not available, but one company reported that a crewman's regular salary and his percentage of the value of the catch totaled about DM 900 (US\$225) monthly. Another company stated the captain normally received 4.5 percent of the value of the catch.

One company made the following estimate of trawler operating costs on a daily basis:

- (1) DM 6,000 (US\$1,500) per day for a vessel of 1,000 British registered tons (BRT) with a daily freezing capacity of 10 metric tons, cold-storage capacity of 90 tons, room for 300 tons of iced fish, fish meal production capacity of 20 tons per day, 35-man crew, and engine of 2,000 horsepower.
- (2) DM 7,500 (US\$1,875) per day for a vessel of 1,200-1,600 BRT with a daily freezing capacity of 15-20 tons, cold storage capacity of 250 tons, room for 175 tons of iced fish, fish meal production capacity of 20 tons per day, 42-man crew, and engine of 2,000 horsepower.

Landings and Sales: The annual gross sales of one trawler of 1,000 BRT with daily operating costs of DM 6,000 (US\$1,500) as described above have been estimated at DM 2,400,000 (US\$600,000) based on annual landings of 1,765 metric tons of fresh fish, 515 tons of

frozen fish, 304 tons of salted fish, 311 tons of fish meal, and 99 tons of fish oil. The estimate is based on 196 days actual fishing time. (Regional Fisheries Attache for Europe, United States Embassy, Copenhagen, October 17, 1962.)

Note: One Deutsche Mark (DM) equals US\$0.25.



Ghana

AMERICAN FISHERMEN TRAIN CREWS ON NEW TUNA PURSE-SEINE VESSELS:

It has been learned that American rather than British fishermen are training the crews on four new Ghanaian tuna purse-seiners recently purchased from a British shipyard. The United States mission was sent to Ghana by the United States Agency for International Development (AID) upon the request of the Ghanaian Government. The training mission consists of two American tuna vessel captains and two American tuna fishermen.

The new Ghanaian vessels are crewed with British captains, mates, and engineers experienced in trawl fishing. Ghanaian fishermen previously trained on United States tuna purse-seiners are working on the vessels as fishermen. The British and Ghanaian crews are expected to be operating the vessels efficiently as tuna purse-seiners after a year of training by the American fishermen.



Greece

EEL PRICES, AUGUST 1962:

At the auction in Patras, Greece, August 25, 1962, the highest bids for eels from the lagoons of western Greece were made by a fishery firm in the Netherlands.

Patras Eel Auction Prices, August 25, 1962		
Source of Eels	Prices	
	Drachmas/Kilogram	U. S. Cents/Pounds
Preveza Lagoon	24	36.3
Vonitsa "	30-32	45.3-48.4
Kotychi "	20.5	31.0
Messolonghi "	23.5	35.5

A fishery firm in the Netherlands also signed a contract to buy eels from the Greek lagoons of Mourghia (Pyrgos) and Agoulinitza for 28 drachma per kilogram (42.3 U.S. cents per pound). (Alieia, September 1962.)

Greece (Contd.):

LANDINGS OF FROZEN FISH BY ATLANTIC FREEZER-TRAWLER FLEET:

During September 1962, five Greek freezer trawlers landed 1,831 metric tons of frozen fish, as compared to five trips in August 1962 with 1,385 tons. In September 1961, three vessels landed 635 tons of frozen fish.

The total landings of frozen fish during January-September 30, 1962, totaled 12,888 tons as compared with 10,131 tons during the same period of 1961.

During the month of September 1962, Greek shipowners bought in Germany three old steam-powered fishing trawlers, which they intend to convert into Diesel-powered freezer-trawlers. These vessels will increase the Greek Atlantic fleet to about 24 freezer trawlers. Included in that number is a 41.5-meter (136 feet) freezer-trawler under construction in a Greek shipyard.

The consumption of frozen fish for the whole of Greece during August 1962 amounted to 1,734 metric tons, as compared with 1,580 tons in July 1962. (Alieia, October 1962.)



Iceland

FISHERIES TRENDS, EARLY NOVEMBER 1962:

South Coast Herring "Share-of-the-Catch" Dispute: The settlement proposed by Icelandic Government mediators in the South Coast winter herring fishing contract dispute would give fishermen a share of the catch that was equal, or in some cases exceeded, the share received by fishermen in the summer herring fishery. The share of the catch in the proposed settlement would partly depend on the type of vessel and its equipment. Fishermen and motor boat owners finished voting on the proposed settlement November 7, 1962, but the results are not yet known. The Minister of Fisheries in a Parliament debate suggested Government intervention in the South Coast herring dispute in case there is no agreement between fishermen and motor boat owners.

British Trawler Fined: The skipper of a British trawler charged with operating within the Icelandic fishing limits zone was

fined 230,000 kronur (US\$5,341) and his catch and fishing gear were confiscated, according to the Icelandic press. (United States Embassy, Reykjavik, November 9, 1962.)

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FISHERIES TRENDS, MID-NOVEMBER 1962:

South Coast Herring "Share-of-the-Catch" Dispute: Boat owners and fishermen overwhelmingly rejected the settlement proposed by Icelandic Government mediators in the South Coast winter herring fishing contract dispute. Motor boat owners in Akranes have made a separate settlement with the local herring fishermen which is more advantageous to the fishermen than the State proposal.

License to Use U. S. Process in Freezing Fish Fillets: The Federation of Icelandic Cooperative Societies got a license on November 8, 1962, from a fishery firm in Gloucester, Mass., to use a United States patented process which slows escape of juices (drip) from fillets both before freezing and after defrosting. The process will be used on about 16 percent of Iceland's frozen fish. (United States Embassy, Reykjavik, November 16, 1962.)

* * * * *

EXPORTS OF FISHERY PRODUCTS, JANUARY-OCTOBER 1962:

During January-October 1962, there was a considerable increase in exports of frozen herring, frozen fish fillets, salted herring, herring oil, and herring meal as compared with the same period in 1961, ac-

Product	Jan.-Oct. 1962			Jan.-Oct. 1961		
	Qty.	Value f.o.b.		Qty.	Value f.o.b.	
		Metric Tons	1,000 Kr.		US\$ 1,000	Metric Tons
Salted fish, dried	1,938	38,111	884	3,069	57,674	1,511
Salted fish, uncured	24,982	302,598	7,020	25,174	251,157	6,580
Wings, salted	983	11,271	261	1,250	11,517	302
Stockfish	6,550	167,751	3,892	7,156	167,773	4,396
Herring on ice	4,899	17,144	398	3,754	9,630	252
Other fish on ice	26,943	84,915	1,970	20,562	95,363	2,499
Herring, frozen	17,076	93,552	2,170	10,069	48,151	1,262
Other frozen fish, whole	1,134	15,344	356	1,460	15,971	418
Frozen fish fillets	40,322	703,639	16,324	29,827	458,430	12,011
Shrimp and lobster, frozen	328	32,591	756	354	27,114	710
Roes, frozen	648	12,401	288	515	6,817	179
Canned fish	222	11,235	261	183	11,619	304
Cod-liver oil	3,751	30,459	707	3,350	28,737	753
Lumpfish roes, salted	401	6,156	143	476	8,068	211
Other roes for food, salted	2,745	37,922	880	2,468	24,897	652
Roes for bait, salted	1,387	8,678	201	1,348	8,131	213
Herring, salted	28,999	256,601	5,953	19,266	173,056	4,534
Herring oil	33,294	141,245	3,277	11,006	65,293	1,711
Ocean perch oil	15	59	1	460	2,572	67
Whale oil	1,152	9,104	211	917	6,452	169
Fish meal	19,334	121,130	2,810	26,684	106,994	2,803
Herring meal	37,230	243,555	5,650	23,260	116,927	3,063
Ocean perch meal	34	204	5	3,581	16,170	424
Wastes of fish, frozen	4,544	11,457	266	9,794	17,773	466
Liver meal	305	2,029	47	315	1,822	48
Lobster and shrimp meal	13	42	1	318	755	20
Whale meal	402	2,151	50	1,342	4,955	130
Whale meat, frozen	1,621	12,284	285	1,188	8,314	218

Note: Values converted at rate of 1 kronur equals 2.32 U. S. cents in 1962 and 2.62 U. S. cents in 1961.

Iceland (Contd.):



According to the Statistical Bureau of Iceland's Statistical Bulletin, October 1962. Exports of fish meal, ocean perch meal, frozen fish waste, lobster and shrimp meal, whale meal, and dried salted fish showed a considerable decrease in the first ten months of 1962.

FISHERY LANDINGS BY PRINCIPAL SPECIES, JANUARY-JUNE 1962:

Species	January-June	
	1962	1961
	. . . (Metric Tons) . . .	
Cod	148,521	153,443
Haddock	15,977	16,778
Saithe	5,986	5,239
Ling	4,195	3,638
Wolffish (catfish)	9,910	8,901
Cusk	3,599	3,507
Ocean perch	2,962	10,640
Halibut	649	761
Herring	99,285	58,390
Shrimp	349	430
Other	3,331	3,595
Total	294,764	265,322

Note: Except for herring which are landed round, all fish are drawn weight.

FISHERY LANDINGS BY PRINCIPAL SPECIES, JANUARY-JULY 1962:

Species	January-July	
	1962	1961
	. . . (Metric Tons) . . .	
Cod	157,276	162,968
Haddock	19,010	18,890
Saithe	6,644	5,954
Ling	4,392	3,749
Wolffish (catfish)	10,832	10,287
Cusk	3,646	3,558
Ocean perch	3,436	13,225
Halibut	821	962
Herring	244,231	177,864
Shrimp	349	430
Other	6,327	6,460
Total	456,964	404,347

Note: Except for herring which are landed round, all fish are drawn weight.

UTILIZATION OF FISHERY LANDINGS, JANUARY-JUNE 1962:

How Utilized	January-June	
	1962	1961
	. . . (Metric Tons) . . .	
Herring^{1/} for:		
Oil and meal	72,577	28,657
Freezing	14,070	8,004
Salting	4,851	17,609
Fresh on ice	7,718	4,119
Canning	69	-
Groundfish^{2/} for:		
Fresh on ice landed abroad	12,730	15,539
Freezing and filleting	82,007	87,908
Salting	62,143	55,458
Stockfish (dried unsalted)	31,004	41,082
Home consumption	5,319	3,997
Oil and meal	1,156	1,718
Shellfish for:		
Freezing: Lobster	771	801
Shrimp	263	304
Canning (shrimp)	86	126
Total production	294,764	265,322

^{1/}Whole fish.
^{2/}Drawn fish.

UTILIZATION OF FISHERY LANDINGS, JANUARY-JULY 1962:

How Utilized	January-July	
	1962	1961
	. . . (Metric Tons) . . .	
Herring^{1/} for:		
Oil and meal	183,516	113,758
Freezing	16,104	9,445
Salting	36,603	50,542
Fresh on ice	7,718	4,119
Canning	289	-
Groundfish^{2/} for:		
Fresh on ice landed abroad	13,475	16,312
Freezing and filleting	92,821	99,409
Salting	65,218	59,876
Stockfish (dried unsalted)	31,466	42,040
Home consumption	6,253	4,751
Oil and meal	1,463	2,378
Shellfish for:		
Freezing: Lobster	1,689	1,287
Shrimp	263	304
Canning (shrimp)	86	126
Total production	456,964	404,347

^{1/}Whole fish.
^{2/}Drawn fish.



India

FIRM SEEKS JOINT FISHING VENTURE WITH JAPANESE:

An India fishing firm is reported to have approached the Japanese Overseas Fisheries Cooperative Association (a government-sponsored organization) with an offer to establish a joint fishing venture with a Japanese firm. A representative of the India company was in Japan during November 1962 to conduct

India (Contd.):

negotiations for this purpose. Reportedly, the India company wants to conduct trawl fishing in cooperation with a Japanese firm to increase its fish production, which presently totals 128,000 metric tons per year. Fishing by the company is conducted within a distance of 25 kilometers (15 miles) from the Indian coast. (Shin Suisan Shimbun Sokuho, November 6, 1962.)



Ivory Coast

SECOND FISHING TRAWLER LAUNCHED:

A Franco-Ivoirien shipbuilding firm launched Ivory Coast's second locally built fishing trawler, the Mafou AN 483 on November 24, 1962. About 69 feet long with a beam of 14 feet and drawing 7½ feet, the vessel is of similar size to the Golitcha, launched in May 1962. Both vessels were designed and built by a Spanish master shipwright from Morocco with aid of 20 native apprentice shipwrights. Early in 1963, a third vessel will be launched, and the keel of a fourth vessel was laid in November 1962.

The construction of new vessels plus a developing fishing port, freezing plant, and cannery is indicative of intense activity in expansion of Ivoirien fishing industry. Beneficial to Ivory Coast is training afforded fledgling Ivoirien shipwrights. (United States Embassy, Abidjan, November 30, 1962.)



Japan

CANNED TUNA EXPORT REGULATIONS FOR 1963:

New regulations governing exports of canned tuna to the United States were announced on November 30, 1962, by the Japanese Ministry of International Trade and Industry (MITI). Under the new regulations, export quotas will be allocated on the basis of actual quantities of canned tuna exported during December 1, 1961, through November 30, 1962. Previously, quota allocations for canned tuna were determined on the basis of actual quantities exported during the period 1950-1955. Canned tuna exports for the period December 1, 1962, through November 30, 1963, will be approved in accordance with the following procedure:

I. Limits on Variety: Approval of canned tuna exports to the United States shall be limited to canned tuna in brine and to tuna specialty packs (excluding tuna packed in oil).

II. Canned Tuna in Brine: Total export quota of canned tuna in brine shall be fixed and the allocation of

that quota to exporters shall be computed under the following method: (A) Total export quota shall be computed on the basis of actual quantities of canned tuna in brine exported to the United States during December 1, 1961, through November 30, 1962. However, in allocating quotas, quantities of less than 10 cases shall be counted as 10 cases. (B) In the event that an exporter transfers his quota to another exporter, his quota shall be reduced by the amount that was transferred, and the recipient's quota shall be correspondingly increased. (C) Exporters applying for approval to export canned tuna in brine to the United States must submit either one of the following documents with their applications: (1) members of the Japan Canned Foods Exporters Association shall submit an export certificate issued by the Association; (2) other exporters shall submit proof of sales contract concluded with the Tokyo Canned Tuna Sales Company; members of the Japan Canned Foods Exporters Association may substitute, in lieu of the Exporters Association's export certificate, documentary proof of sales contract concluded with the Tokyo Tuna Sales Company until such time that the Association's "Regulations on quantities of canned tuna to be exported to the United States" are issued. (D) Authorization of export quotas under the new regulations shall be based on 48 No. 2 cans (U.S. No. 1/2 7-oz.) as the standard case. Conversion rates for canned tuna of other sizes shall be as follows:

Japanese Can Size	Equivalent U.S. Can Size	Conversion Factor
Tuna No. 1 can 24's	13-oz. 24's	0.94
Tuna No. 3 can 48's	3-1/4-oz. 48's	0.48
Tuna 2-kg. cans 6's	4-lb. 6's	1.16

III. Tuna Spread and Pet Food: Exporters applying for approval to export tuna spread and pet food to the United States must submit the following documents: (A) Tuna spread--authorized copy of inspection certificate issued by the Japan Canned Foods Inspection Association. (B) Pet food--certificate of inspection issued by the Ministry of Agriculture and Forestry.

IV. Other Canned Tuna Exports: Exporters applying for approval to export other canned tuna products to the United States must submit a certificate showing that the products are not subject to United States import duty (certificate issued either by the U. S. Government or by the Japan Canned Foods Exporters Association) and, in addition, a certificate issued by the Japan Canned Foods Inspection Association certifying compliance with the United States tariff requirements.

V. Country of Destination: The term "United States" as used in the regulation refers to the 50 states in the United States, the District of Columbia, Puerto Rico, Virgin Islands, Panama Canal Zone, Guam Island, American Samoa, Wake Island, Midway Island, Canton Island, Endebury Island (Phoenix Islands' group), and St. Thomas Island.

VI. Export Performance Report: With the exception of members of the Canned Foods Exporters Association, all exporters applying for approval to export canned tuna in brine to the United States during December 1, 1962, through November 30, 1963, must submit to MITI by December 20, 1962, previous export licenses (Customs Clearance Forms) covering the period December 1, 1961, through November 30, 1962, for certification of their export records. (Suisan Keizai Shimbun, December 1, 1962.)

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FROZEN TUNA EXPORTS TO UNITED STATES, APRIL-OCTOBER 1962:

Data compiled by the Japan Frozen Tuna Producers Association for frozen tuna approved for export to the United States from

Japan (Contd.):

Frozen Tuna Exports to U. S. Direct from Japan, April-October 1962 and 1961		
Product	1962	1961
	... (Short Tons) ...	
Albacore:		
Round	13,363	12,710
Loin	106	524
Dressed	-	5
Yellowfin:		
Gilled & gutted:		
With head	22,465	16,512
Without head	350	320
Fillet	2,683	1,657
Loin	2,462	1,707
Big-eyed:		
Round	45	114
Gilled & gutted:		
With head	124	27
Without head	-	21
Fillet	25	321
Loin	357	55
Skipjack:		
Round	151	217
Loin	-	1
Fillet	-	5
Bluefin:		
Loin	41	6
Fillet	-	5

Japan proper during April-October 1962 are shown in the table. There is a balance of 5,809 short tons in the yellowfin tuna export quota available for export to the United States for the remainder of the current fiscal year. (Suisan Tsushin, November 2, 1962.)

FROZEN TUNA EXPORT TRENDS, EARLY NOVEMBER 1962:

Early in November 1962, the trend of Japanese exports of frozen tuna was causing concern to the industry in Japan due to the dull market abroad and the stagnancy in sales.

Tuna export prices as of early November 1962 to the United States were \$310 for albacore, \$270 for yellowfin, f.o.b. Japan. Those prices were substantially lower than those prevailing in April and May 1962 when they had reached a peak of \$430 for albacore and \$380 for yellowfin.

A marked drop in shipments of frozen tuna to the United States occurred beginning in September 1962. Taking exports of frozen yellowfin, for example, the Export Frozen Tuna Fisheries Association reported exports of 6,000 tons in April, 5,800 tons in May, 2,300 tons in June, 7,400 tons in July, 3,100 tons in August, 2,200 tons in September, and an estimated 2,000 tons in October.

(Translation from Japanese periodical Suisan Keizai Shimbun, November 10, 1962.)

BUYERS REQUEST POSTPONEMENT OF FROZEN ALBACORE TUNA SHIPMENTS FROM JAPAN:

As of the latter part of October 1962, Japanese shippers reported that the prices offered by buyers of frozen albacore tuna had been dropping ten dollars a short ton almost weekly. The last offer was US\$295 a short ton f.o.b. Japan as of the end of October 1962.

Due to the market situation in the United States, September-November shipments were postponed by many buyers. It was estimated that more than 2,500 tons of albacore remained unshipped as of mid-October 1962 because of requests by buyers to postpone shipment. (Japanese periodical, October 27, 1962.)

JAPANESE FIRM SEEKS PRIVATE U. S. CAPITAL TO BUILD TUNA VESSELS:

A Japanese firm is promoting a plan to construct tuna vessels of the 1,000-ton class with funds to be borrowed from a large United States fruit canner. Of the US\$1.1 million planned for the construction of the tuna vessels, the Japanese firm has almost reached an agreement to borrow \$750,000 from the large packer in California at an interest of slightly more than 5 percent a year. The plan was submitted to the Japanese Fisheries Agency early in November 1962.

The United States packer specializes in canning fruits, but recently entered into the field of tuna packing. The raw fish for the operation would be supplied by the planned 1,000-ton vessels which are expected to fish in the South Atlantic. (Translations from the Japanese periodicals Suisan Tsushin and Suisan Keizai Shimbun.)

FROZEN TUNA EXPORT QUOTAS FOR 1963:

The Japan Frozen Tuna Producers Association, which held a special meeting on November 28, 1962, to study the 1963 frozen tuna export quota from Japan proper to the United States, reportedly has adopted a proposal to increase the present frozen yellowfin tuna export quota (35,000 short tons) by 10,000 short tons and the present tuna loin export quota (5,000 short tons) by 1,000 short tons. The

Japan (Contd.):

increase of 10,000 tons for yellowfin tuna is to be allocated as follows: 8,000 tons to producers on the basis of past performance records; 1,970 tons unassigned (so-called free quota); and 30 tons to newly authorized exporters. The 1,000-ton increase for tuna loin exports is to be allocated as follows: 800 tons on the basis of past performance records; 195 tons unassigned; and 5 tons to newly authorized exporters. The new quotas are to become effective from December 19, 1962.

At the same meeting, the Association also agreed to request the Fisheries Agency to designate Philipsburg, Saint Martin Island, Dutch West Indies (due east of Puerto Rico) as a transshipment port. The port of Philipsburg can accommodate 2,000-ton (gross tons) vessels and, if approved by the Fisheries Agency, would become the nearest transshipment port to the United States for Japanese fishing vessels operating in the Atlantic Ocean.

Other designated transshipment ports in the Caribbean Sea area are Port-of-Spain (Trinidad Island), Willemstad (Curacao Island)^{1/}, and Cristobal (Panama). (Shin Suisan Shimbun Sokuho, November 29, 1962, and other sources.)

^{1/}Although Willemstad has been designated as a transshipment port by the Japanese Government, cold-storage facilities at that port are described to be inadequate and Japanese tuna vessels reportedly are not now using that port for transshipment purposes. Reportedly, Willemstad is expected to be used as a transshipment port as soon as adequate cold-storage facilities are built by a large Japanese fishery firm, which plans to construct a 1,000-ton capacity cold-storage plant, as well as a cannery, at that site. Available information indicates that the Japanese firm is experiencing difficulty in procuring necessary foreign exchange to proceed with its plans.

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FROZEN TUNA EXPORTS TO ITALY:

Japanese exports of frozen tuna to Italy had exceeded 22,000 metric tons during January-September 1962. (Ordinarily the exports consist of direct shipments and transshipments of tuna caught by Japanese vessels operating in the South Atlantic area.) It was expected that by the end of 1962 exports would reach a total of 33,000 tons. In the past, exports totaled 22,000 to 25,000 tons annually. In 1962 there was a resumption of shipments direct from Japanese ports--the annual total should be around 2,500 tons.

The Japanese late in October 1962 reported a comparatively firm tone for frozen tuna for export. The price of US\$375 c.& f. a metric ton was only about \$15 lower than the highest summer market price. (Japanese periodical, October 27, 1962.)

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FROZEN TUNA EXPORTS TO SPAIN AND PORTUGAL:

A Japanese press report dated December 10, 1962, states that the Japanese Fisheries Agency has decided to approve exports of frozen tuna to Spain and Portugal in view of the tremendous demand for tuna in those countries. This decision represents a reversal of the Agency's original policy of not approving frozen tuna exports to those countries for fear that the canned tuna they produced from Japanese-supplied raw materials would be exported to the United States, where they would enter into direct competition for the United States tuna market with Japanese canned tuna.

The Fisheries Agency reportedly is satisfied that economic conditions (high c.i.f. price) rule out this potential danger but is limiting such exports to those from Japan proper only. At the same time, the Fisheries Agency approved the landing of a maximum of 2,000 metric tons of frozen tuna at Las Palmas, Canary Islands (Spanish territory), for Japanese fiscal year 1963 (April 1963-March 1964) and 700 metric tons for the period to March 1963 for processing by local packers. In granting those landing quotas, the Fisheries Agency is requesting that canned tuna packed in the Canary Islands from raw tuna supplied by Japan should not be exported to the United States or shipped to Spain proper.

According to an earlier press report dated November 27, albacore landed in Spain at that time were bringing \$500-517 a metric ton, whereas, in 1961, the price was \$384-400 a metric ton. (Suisan Tsushin, November 27, and December 10, 1962.)

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EX-VESSEL TUNA PRICES AT TOKYO:

The following ex-vessel prices were paid on December 4, 1962, for 500 metric tons of tuna and other fish landed at the Tokyo Central Fish Market, according to a translation from the Japanese periodical Suisan Keizai Shimbun, December 6, 1962.

Japan (Contd.):

Product	Price	
	Yen/Kg.	\$/Short Ton
Yellowfin (gilled and gutted):		
Extra large (over 120 lbs.)	97-105	245-264
Large (100-120 lbs.)	112-113	282-285
Medium (80-100 lbs.)	116-117.4	292-296
Small (20-80 lbs.)	117-118.4	295-298
Albacore	121.3-126.3	306-319
Skipjack	40-41.5	101-105
Filletts:		
Yellowfin	132.3-139.1	334-350
Big-eyed	140.7-144	354-363
Bluefin	132.8-135	335-340

CANNED TUNA IN BRINE EXPORTS TO UNITED STATES INCREASED:

The Japan Canned Foods Exporters Association held a meeting on November 16, 1962, to discuss the additional sale of canned tuna in brine for export to the United States since the Association's export quota (2,200,000 cases) established for the current year had already been filled. (Actual exports totaled 2,202,960 cases.) At the meeting, the Association members agreed to offer an additional 75,000 cases for sale. Shipments were expected to be completed by the end of November to ensure entry of the products into the United States before the end of the calendar year. (Nihon Suisan Shimbun, November 21; Suisan Tsushin, October 16, 1962.)

EXPORTS OF CANNED TUNA IN OIL AND SPECIALTY PACKS:

Data compiled by the Japan Export Tuna Packers Association reveal that canned tuna in oil approved for export from Japan during April-October 1962 totaled 777,230 cases. This was a 10-percent decrease from April-October 1961 exports (which totaled 846,077 cases) and a 40-percent increase over the same period in 1960 (when exports totaled 552,086 cases).

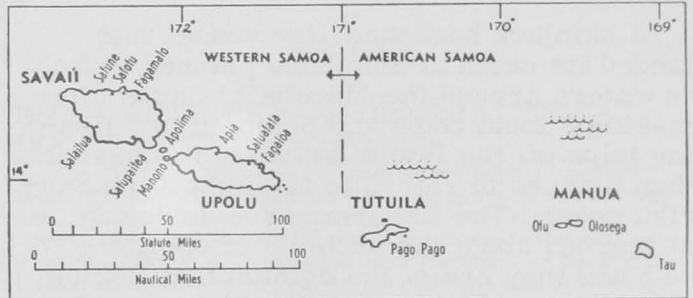
Exports of canned tuna specialty packs totaled 263,776 cases April-October 1962, showing more than a twofold increase over the same period in 1961, when exports totaled 127,589 cases. By kind, they were as follows: 66,526 cases of jelly tuna; 88,565 cases of vegetable tuna; 6,069 cases of tuna in tomato sauce; and 2,616 cases of other packs. (Suisan Tsushin, November 30, 1962.)

CANNED TUNA INDUSTRY REPRESENTATIVES TOUR U. S.:

A party of four Japanese representatives of the tuna-tangerine packing industry left Japan on November 28, 1962, for a two-week tour of the United States to study United States market conditions. They were: Isokichi Goto, Executive Director, Japan Tangerine Packers Association; Komazo Yoshida, Chief, Marine Products Division, Tokyo Shokuhin; Yoichi Sakurada, President, Sakurada Industries; and Seiichi Shibano, President, Shimizu Suisan Kaisha. The Japanese visitors were scheduled to arrive in Los Angeles on December 6, 1962, and were to spend one day in the Los Angeles area. (Suisan Keizai Shimbun, November 29, 1962, and other sources.)

AMERICAN SAMOA TUNA PRODUCTION QUOTA FOR JAPANESE VESSELS:

Following the announcement by a large United States packer of a plan to construct a cannery in American Samoa, several Japanese fishing firms are said to have unofficially approached



the Fisheries Agency concerning the allocation of a new production quota for that area. Reportedly, such a quota, if granted, is very likely to be allocated to two Japanese groups. The Fisheries Agency is said to be considering an additional production quota of around 6,000 short tons for American Samoa. Present production quota for Japanese tuna fishing vessels delivering their catches to American Samoa is 18,000 short tons of tuna. (Suisan Tsushin, November 21, 1962.)

Editor's Note: Another United States tuna packer already has a cannery in American Samoa and the quota of 18,000 tons is for that cannery.

Japan (Contd.):

HOOK-AND-LINE SKIPJACK TUNA FISHERY TRENDS:

The Japanese hook-and-line fishery for skipjack tuna off Kinkazan, Miyagi Prefecture, began in mid-June 1962. Early in November 1962, the season was near the end as some vessels had already left the fishing grounds. Local hook-and-line vessels and those from Kochi, Mie, and Shizuoka Prefectures were expected to wind up the season after two more fishing trips. Compared with 1961 when catches were good and prices high, landings in 1962 were light and prices low. All the vessels were looking forward to more profitable fishing in southern Pacific areas.

The vessel operators commented that they had difficulties with high-priced sardine for bait in 1962 with prices at \$3.89-\$4.72 per bucket as of the end of October. It takes US\$1,111 to provide bait for one fishing trip. Adding the cost of ice and other items, expenses for a trip were \$2,222. Operating costs are considered too high for a profitable operation.

A skipjack hook-and-line vessel that landed its catch at Shiogama planned to fish in waters around the Marshall Islands after making 2 local trips and completing 3 fishing trips off the Bonin Islands. The vessel then planned to return to fishing off the Sanriku coast. The fishermen are seriously concerned about the problem of obtaining bait and they are of the opinion that fishing cannot be profitable until the high cost of bait is solved. (Suisan Keizai Shimbun, November 9, 1962.)

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VESSELS USE HOOK AND LINE TO FISH TUNA OFF AFRICA WEST COAST:

Since June 1962, a Japanese firm has been fishing tuna with hook and line in the inshore waters off the southwest coast of Africa. Good fishing was reported attracting the attention of the industry in Japan. This is the first time the Japanese have used hook and line to fish tuna off Africa.

The hook-and-line method is used by the company's four tuna vessels, the Kuroshio Maru No. 70, No. 71, No. 72, and No. 73, all 230-ton class vessels. They were specially designed to fish hook and line and long line concurrently. This is the first attempt by

the Japanese to design a vessel that could use both methods of fishing.

As of early November 1962, Tima and Freetown in Ghana were used as bases. The tuna catch consisted of yellowfin weighing 61 pounds each, small yellowfin weighing 17 pounds each, and skipjack weighing 7 pounds each. Compared with tuna long-line vessels operating in the Atlantic, they are getting surprisingly larger catches. On each vessel there are three natives in addition to 23 Japanese crew members. Fishing trips last 15-20 days. Live sardine are used for bait. Bait is abundant along the coast and this helps in catching 100 tons per fishing trip.

The fishing method used is based on studies carried out since 1960 by two technicians of the Japanese company. The vessel used was designed to fish hook and line concurrently with long line. With the Kuroshio Maru No. 70 completed in February 1962 as the first one, four vessels of the same type were built at the Hakodate Shipyards. Early in November the fifth vessel, the Kuroshio Maru No. 75, sailed from Kurihama for the African coast.

The characteristics of the vessel are (1) the position of the platform for hook and line, (2) mechanized handling of catch, (3) holding facilities for live bait, (4) ability to catch and replenishing live bait supply (two powered catchers on board are capable of operating surrounding and dip nets), and (5) equipped also for tuna long-line fishing. (Translation from Japanese periodical, November 10, 1962.)

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FIRM'S TUNA MOTHERSHIP FLEET DEPARTS FOR SOUTH PACIFIC:

A large Japanese fishing company's tuna mothership Tenyo Maru (3,750 gross tons), accompanied by a fleet of 50 catcher vessels, was scheduled to depart Japan for the South Pacific Ocean on December 3, 1962, on a 117-day fishing trip. It was scheduled to return to Japan toward the end of April 1963. The mothership's catch target is 5,000 metric tons of tuna and other fish. (Suisan Tsushin, November 20, 1962.)

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TUNA VESSEL OPERATIONS IN ATLANTIC OCEAN, EARLY NOVEMBER 1962:

In October 1962, there were 77 Japanese tuna long-liners fishing in the Atlantic Ocean-

Japan (Contd.):

this was the greatest number to operate in that area since tuna fishing was started by the Japanese in the Atlantic. But in November it was expected that there would be 79 long-liners in the Atlantic. In November 1961, there were only 52 vessels. Most of the fleet was fishing albacore tuna off Angola. Fishing continued good and the catch consisted of 60-70 percent albacore.

Although exports of frozen albacore to the United States had dropped off, exports to France were increasing rapidly. But as of early November, there was only a small balance left in the quota allocated for France. (Suisan Tsushin, November 10, 1962.)

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INDIAN OCEAN TUNA FISHING REPORTED POOR:

A Japanese fishing firm's Class II portable-vessel-carrying tuna mothership^{1/} Ban-shu Maru No. 5 (3,700 gross tons), which commenced fishing in the Indian Ocean in the vicinity of the Seychelles Island from October 16, was reported to have encountered poor fishing mid-October to mid-November 1962. Her eight portable catcher vessels in one month reportedly caught an average of 1.5 metric tons of fish a day per vessel, totaling 12 tons a day, which is far below the anticipated daily catch target of 20 tons. To seek

Composition of Catch by Japanese Tuna Mothership, Mid-October to Mid-November 1962	
Species	Catch
	Metric Tons
Yellowfin tuna	128.8
Albacore tuna	1.6
Big-eyed tuna	60.4
Spearfish	33.1
Shark, etc.	22.1
Total catch	246.0

better fishing, the vessel was reported to have made a four-day run, beginning November 16, to the fishing grounds off Mombasa, Kenya.

As of November 16, the vessel had landed a total of 246 tons of tuna and other fish (Suisan Tsushin, November 20, 1962.)

^{1/}Under the revised mothership regulations, Class II portable-vessel-carrying tuna motherships (over 2,000 gross tons) are not permitted to engage directly in fishing and can employ only portable vessels to do the actual fishing.

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TUNA RESEARCH COUNCIL MEETS:

The All Japan Skipjack and Tuna Research Council met in Tokyo in November 1962 and determined its work plan. The council is going to emphasize research on (1) mechanization and automation of fishing techniques, and (2) tagging studies and development of new bait fish.

In February 1962, the council backed several types of tuna research in process or planned. Included among these was research on the development of a fish finder for "use in the study of the ecology of tuna, research on the operation of long-line gear in sea water, and the vertical distribution of tuna species with use of a fish finder." Now reportedly an interim report on the subject has been published and it is said that the data have been obtained with use of an extra high-frequency fish finder. On the depth of long-line gear in sea water, the data obtained have checked out with those obtained by actual survey with the use of depth indicators. The practical use of a fish finder for determining the depth at which tuna long lines fish may be possible. (Japanese fishery periodical, November 17, 1962.)

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ESTABLISHMENT OF CENTRAL TUNA COOPERATIVE PROPOSED:

The Japanese National Federation of Fishery Cooperatives (ZENGYOREN) scheduled a meeting for November 30, 1962, to discuss the establishment of a central tuna cooperative, called Katsuo Maguro Chuo Kosha. The central tuna cooperative is to be made up of members of the regional cooperatives who were granted special tuna vessel licenses under the Japanese Government's plan to assist the depressed coastal fishery. ZENGYOREN hoped to develop at the meeting articles of association, business plans, and other details. Affected by this plan are 30 medium-class (40-100 tons gross) tuna vessels.

The Fisheries Agency is reported to be actively supporting the idea of centralized management of the newly-licensed tuna vessels, as proposed by ZENGYOREN. The Agency is also reported to be planning on giving priority in allocating tuna production quotas to owners whose vessels were withdrawn from the depressed fisheries, such as the coastal, trawl, and surrounding-net fisheries and who were granted special tuna vessel licenses. This has stirred interest among large fishing companies to offer fishing contracts to those vessel owners.

On November 19, the Fisheries Agency met with prefectural government fishery representatives to study the operational plans of vessel owners in the coastal prefectures who were granted medium-class tuna vessel licenses under the Government's plan to aid the depressed fisheries. It was disclosed at that meeting that there were some discrepancies in the ZENGYOREN data made available to the meeting and the data submitted by the prefectural government representatives. ZENGYOREN's data showed that owners of eight newly-licensed tuna vessels who originally had engaged in the coastal fishery had indicated their intentions of joining the central tuna cooperative, whereas

Japan (Contd.):

the prefectural government representatives' data showed that, as of November 19, only three such vessel owners had announced their intentions of joining the central cooperative. This discrepancy was attributed in part to the lack of recent and full communication between the prefectural governments and prefectural cooperatives. (*Nihon Keizai Shimbun*, November 4; *Suisan Tsushin*, November 14 & 21, 1962.)

Editors's Note: According to earlier press reports, the Fisheries Agency in August 1962 authorized, over a two-year span, the construction of new medium-class (40-100 tons) tuna vessels (20,000 gross tons) as replacements for fishing vessels to be withdrawn from the depressed fisheries. The new tuna vessel construction was allotted to the fisheries as follows: salmon fishery 10,500 gross tons, coastal 3,000 tons, trawl 3,000 tons, surrounding net 1,500 tons, and tuna 2,000 tons (to be allocated to tuna vessel owners who are planning to construct vessels larger than 99 tons gross).

Apparently, under the plan, coastal fishing vessel operators are building thirty 100-ton tuna vessels and surrounding-net fishing vessel operators are constructing 15 vessels of the same size.

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EXPORTS OF TUNA VESSELS:

The Japanese periodical *Suisan Tsushin*, December 7, 1962, reports that, following negotiations between the Governments of Japan and South Korea, the Japanese Government appears to have decided to approve the export of 15 additional tuna vessels to South Korea. These 15 vessels are in addition to the five 135-ton tuna vessels earlier approved for export (as freezer carriers) to South Korea by the Japanese Government. Reportedly, part of the funds for the construction of the 15 vessels is being supplied by a large United States tuna canner and by Japanese trading firms, and the majority of the vessels, when completed, are expected to be based at American Samoa.

The periodical further states that the Government of Okinawa has indicated a strong desire to purchase, as well as charter, Japanese tuna vessels. Reportedly, the Japanese Government is expected to respond to the Okinawan request but would likely restrict the export and charter of tuna vessels to a maximum of 2,350 tons in vessel tonnage, and the Okinawan Government is expected to issue formally vessel import licenses in the near future, according to reports. Vessels to be transferred to Okinawa reportedly would be made up wholly of old Japanese tuna vessels retired from the Japanese tuna fishery.

In addition to South Korea and Okinawa, Southeast Asian nations, like Formosa and Ceylon, are said to want to purchase Japa-

nese tuna vessels, and those nations are reported to be taking active measures through Government channels to negotiate those purchases.

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DISTANT-WATER TRAWL FISHERY:

There are as of October 1962 seven Japanese trawl fishing firms operating a total of 31 distant-water trawlers, the Japanese periodical *Minato Shimbun* of November 1 reports. The annual production of the overseas trawlers is reported to be 80,000 metric tons of frozen fish. The Japanese distant-water trawl operators will soon complete their first trawler construction program and will embark on a second trawler construction program for FY 1963 (April 1963-March 1964). The construction of additional trawlers will increase the trawler fleet to 41 vessels, totaling 70,000 gross tons. It is estimated that this fleet expansion will increase the annual fish production of the distant-water trawl fishery to more than 130,000 metric tons. Since the existing trawl fishing grounds would not be able to accommodate all of those vessels, new fishing grounds would have to be sought, and moreover, the fleets themselves may have to process their catches. Reportedly, the trawlers planned for construction under the second vessel construction program will be 2,500 gross tons or larger in size and will be equipped with fillet machines and fish meal plants. In order to expand the Japanese distant-water trawl fishery in the future, the trawlers will have to be capable of processing their catches for the production of fillets and fish meal at sea.

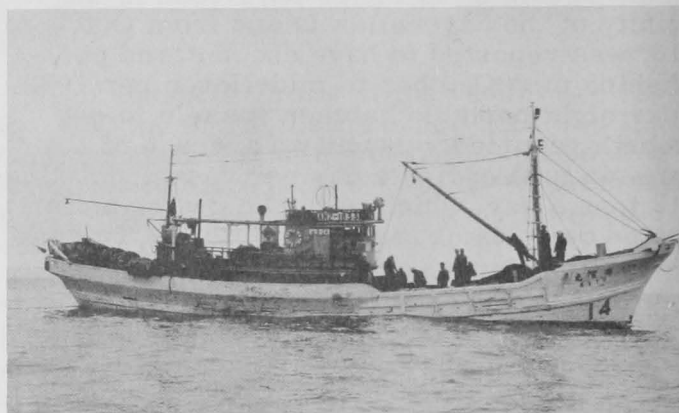


Fig. 1 - Typical Japanese trawler operating together with a mother-ship in North Pacific.

Since trawl fishing is conducted in distant international waters, cooperation among the fishing firms as well as assistance of the Government are desirable. Trawl fishing grounds off the western and southern coasts of Africa are the dollar-earning fishing areas for Japan. More than 10 large Japanese trawlers are operating regularly in those waters which abound in commercially-valuable fish. Japanese fishing firms are expanding their trawl fleets because they see trawling as the only fishery which can still be expanded. They are now extending trawl fishing to the northwest Atlantic Ocean, which is considered to be one of the world's three major fishing grounds. Japanese operations in that area are favored by the fact that the catches of cod and other groundfish can be exported directly to the United States and to European countries, thus earning foreign currencies for Japan. Needless to say, such exports are in accord with Japan's policy of promoting and expanding her foreign trade.

Fishing in distant waters presents various problems involving claims on territorial waters by foreign countries,

Japan (Contd.):



Fig. 2 - Catch of groundfish on the deck of a Japanese trawler fishing for bottom fish in the North Pacific.

fishery treaties, base operations, regulation of exports, and quality standards. The seven Japanese fishing firms engaged in the distant-water trawl fishery are reportedly planning to establish a distant-water trawl fishery association to deal with those problems as well as to prevent competition among themselves. The Fisheries Agency is said to be viewing this idea favorably.

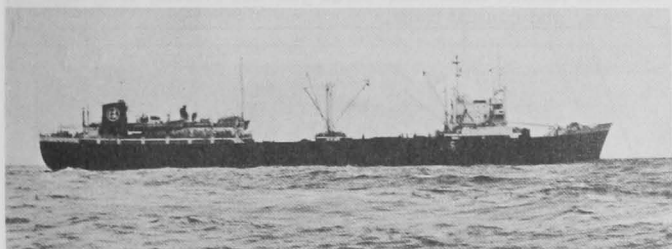


Fig. 3 - Japanese factoryship operating in North Pacific waters. This factoryship was accompanied by 4 fishing trawlers.

Overseas trawl fishery forges ahead, opening up new fishing grounds for Japanese fishermen. Needless to say, this fishery must be firmly established with the support of the Government. It is reported that France is seeking Japanese cooperation and aid in developing the St. Pierre fishing port.

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TRAWLING OPERATIONS IN NORTHWEST ATLANTIC:

A large Japanese fishing company is said to be planning on sending 2 or 3 large trawlers of the 3,500-ton class to the northwest Atlantic Ocean in 1963, one of which will be the Tenyo Maru No. 3 (3,800 gross tons). The Tenyo Maru is being used as a tuna mothership but is scheduled to be converted into a trawler upon her return from the South Pacific tuna fishing grounds in spring 1963.

The firm has not designated the names of the other trawlers it plans to send to the northwest Atlantic Ocean but is understood to be planning on constructing four large stern trawlers of over 2,600 gross tons. Catches are to be processed on board the trawlers and landed in Hamburg, Germany, for export to the United States, Canada, and the Common Market nations.

The first Japanese trawler to enter the Northwest Atlantic fishery belonged to another Japanese firm. The trawler, Aoi Maru No. 2 (1,386 gross tons), began fishing in the waters off the Newfoundland coast in mid-October 1962. It is reported to have experienced poor fishing. The Japanese Fisheries Agency attributed this to the lack of adequate investigations of the fishing grounds. (Shin Suisan Shimbun, December 3; Shin Suisan Shimbun Sokuho, December 5, 1962.)

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TRAWLER FISHES IN NORTHWEST ATLANTIC FROM ST. PIERRE BASE:

The first Japanese trawler to operate in the Northwest Atlantic arrived at her new base in St. Pierre (French), off the coast of Newfoundland, early in October 1962. The vessel was the Aoi Maru No. 2 (1,138 gross tons) which sailed from Nagasaki early in August. Her first fishing trip from the St. Pierre base was expected to be about the middle of October--for cod principally, off Newfoundland and Greenland. During the winter months the vessel's area of operations was to be extended as far south as Florida for shrimp fishing.

Fishing operations of the Aoi Maru No. 2 are to continue until the end of 1963, with plans calling for six fishing trips before she returns to Japan in January 1964.

Japanese trawlers have not been entirely successful in fishing for groundfish in north Pacific waters, and Japan's fishing firms are now looking for more productive groundfish fishing areas. Results of the trawler's operations in the Northwest Atlantic will be closely observed by Japanese fishing interests.

The fishing firm operating the vessel is one of three firms which have applied for permits from the Japanese Fisheries Agency to fish in the Northwest Atlantic. (Japanese newspaper, October 26, 1962.)

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Japan (Contd.):

TUNA VESSEL CONSTRUCTION:

The Japanese salmon fishermen engaged in the Japan Sea pink salmon fishery were excluded from among those granted special tuna licenses in August 1962 to construct the equivalent of 200 100-ton vessels (total vessel construction tonnage equal to 20,000 gross tons). Those fishermen have been asking for special tuna fishing licenses and are now demanding that they be permitted to construct at least 14 medium-class (40-100 tons gross) tuna vessels. The Japanese Fisheries Agency, which was reported to be considering licensing only about 7 tuna vessels, is expected to license less than 10 vessels to the pink salmon fishermen. (Suisan Tsushin, December 10, 1962.)

TRAWL FLEET AND TRAWLER CONSTRUCTION:

Two large 2,500-ton trawlers are reported to have been ordered by a large Japanese fishing firm. Vessel construction was scheduled to begin the latter part of November 1962 for one vessel and in February 1963 for the other, with delivery scheduled for May and August 1963, respectively. Since 1960, this same firm has purchased six 2,500-ton trawlers (Amagi, Ibuki, Unzen, Hidehiko, Oe, Kaibun). These vessels have been assigned to the West African trawl fishing grounds together with two 1,000-ton trawlers, Asama Maru and Ikoma Maru. Upon completion of the two 2,500-ton trawlers, the firm will have a fleet of 12 trawlers over 1,000 gross tons.

Another Japanese fishing company's trawler fleet consists of two 1,800-ton trawlers and seven 1,500-ton trawlers. The addition of Taiyo Maru No. 73 (1,500 gross tons), which was scheduled for delivery in late November 1962, will increase the firm's fleet to 10 trawlers over 1,000 gross tons. Under the second trawler construction program, which begins in 1963, the firm plans to construct four 2,600- to 3,500-ton trawlers.

Besides the two firms indicated above, other fishing firms also operate large trawlers of more than 1,000 gross tons as follows: one firm--two 1,500-ton trawlers; another firm--two 1,500-ton trawlers; another--one 1,500-ton trawler; and still another--one 1,000-ton trawler. (Suisan Tsushin, November 2, 1962.)

FISHERY CATCH OF IMPORTANCE TO CANNING INDUSTRY, 1957-1961; AND CANNED FISHERY PRODUCTS EXPORTS, 1961:

Salmon: Japan's most valuable canned fish export in 1961 was salmon. But Japanese exports of canned salmon in 1961 were down 42.4 percent in quantity and 35.3 percent in value from those in 1960 (see table 5). The Japanese catch of salmon has been declining since 1958 (see table 1). In 1962, the over-all Japanese fishing quota for salmon was reduced to 115,000 metric tons.

Table 1 - Japanese Catch of Salmon, by Species and Source of Catch, 1957-1961

Source of Catch and Species	1961	1960	1959	1958	1957
.....(Metric Tons).....					
<u>Motherships:</u>					
Red	34,901	28,047	18,463	24,248	42,564
Chum	13,013	20,584	23,787	35,918	21,726
Pink	4,908	2,459	25,252	22,091	34,681
Silver	647	2,387	3,215	9,203	934
King	105	499	200	157	95
Total from motherships	53,574	53,976	70,917	91,617	100,000
<u>Other Sources:1/</u>					
Pink salmon	70,115	58,127	75,786	69,283	60,716
Other "	21,975	34,744	32,358	35,727	20,820
Total from other sources	92,090	92,871	108,144	105,010	81,536
Total salmon catch	145,664	146,847	179,061	196,627	181,536

1/Includes salmon from land-based gill-net vessels, long-line vessels, and coastal traps.



Fig. 1 - A large catch of crabs on the deck of a Japanese crab factoryship in the North Pacific.

Tuna: In volume, tuna is Japan's leading canned fish export. Japanese exports of canned tuna in 1961 were up 9.4 percent in quantity and 21.2 percent in value from those of 1960. There was a modest upward trend in Japanese tuna landings in 1957-1960, due in large part to the development of a Japanese tuna fishery in the Atlantic Ocean. The catch of yellowfin tuna has shown a large increase, while the catch of other species of tuna has fluctuated.

Japan (Contd.):

Table 2 - Japanese Catch of Tuna, by Species and Source of Catch, 1957-1961 and January-September 1962

Source of Catch and Species	Jan.-Sept. 1962	1961	1960	1959	1958	1957
 (Metric Tons)					
Motherships:						
Bluefin			594	6,595	4	5
Albacore			7,971	5,554	4,096	3,125
Big-eyed			1,709	1,364	1,910	1,854
Yellowfin			8,587	2,920	4,656	5,153
Skipjack			60	77	41	42
Total mothership catch	1/	1/	18,921	16,510	10,707	10,179
Atlantic:						
Bluefin			684	256	34	63
Albacore			8,516	3,614	1,992	860
Big-eyed			2,801	1,478	453	454
Yellowfin			57,756	44,071	27,159	13,198
Skipjack			1	-	-	3
Total catch from Atlantic	1/	1/	69,758	49,419	29,638	14,578
Overseas Bases Other Than Atlantic:						
Bluefin			8	22	-	-
Albacore			11,897	12,029	10,760	5,625
Big-eyed			862	726	567	500
Yellowfin			2,592	2,542	2,986	1,551
Skipjack			-	-	3	-
Total catch from bases other than Atlantic	1/	1/	15,359	15,319	14,316	7,676
Other Sources:						
Bluefin	42,979	49,151	64,449	44,202	21,092	34,166
Albacore	51,189	43,138	60,721	46,971	46,327	68,111
Big-eyed	50,327	76,775	67,124	70,604	70,048	57,495
Yellowfin	63,848	63,375	85,085	76,866	76,735	79,613
Skipjack	68,262	124,217	78,546	166,628	147,388	97,418
Total catch from other sources	276,605	356,656	355,925	405,271	361,590	336,803
Total Catch by Species:						
Bluefin			65,735	51,075	21,130	34,234
Albacore			89,105	68,168	63,175	77,721
Big-eyed			72,496	74,172	72,978	60,303
Yellowfin			154,020	126,399	111,536	99,515
Skipjack			78,607	166,705	147,432	97,463
Total tuna catch	1/	1/	459,963	486,519	416,259	369,236

1/Data not available.

Note: Includes direct landings in foreign countries by Japanese fishing vessels. Does not include catch of tunalike fish.

Herring (or Herring-Like Fish) and Mackerel: Japan's exports of pilchards and anchovies in 1961 were down 57.0 percent in quantity and 55.2 percent in value from those in 1960. The over-all catch in Japan's fishery for "Iwashi" (sardine, anchovy, and pilchard) declined each year in 1957-1961. Japan cans sardines and small pilchards in cottonseed oil in dingley or quarter cans. They are marketed for domestic use only. The Japanese sardine pack in oil in quarter cans amounted to 18,000 cases in 1960 and 50,000 cases in

1961. Japan's exports of "sardines" consist of large pilchards and anchovies usually packed in tomato sauce. In 1961, the Japanese pilchard pack amounted to 622,300 cases of which 240,000 cases were packed in 15-ounce ovals (48 cans per case); 220,000 cases in 7½-ounce ovals (96 cans per case); 147,000 cases in 5-ounce flats (100 cans per case); 7,500 cases in 15-ounce tall (48 cans per case); and 7,800 cases in 8-ounce oblongs (96 cans per case). The entire pack of anchovies, which amounted to 4,500 cases, was packed in 7½-ounce ovals (96 cans per case).

Table 3 - Japanese Catch of Herring (or Herring-Like Fish) and Mackerels, 1957-1961 and January-September 1962

Species	Jan.-Sept. 1962	1961	1960	1959	1958	1957
 (Metric Tons)					
Herring (or Herring-Like Fish):						
Sardine	60,817	84,633	78,101	119,581	136,654	212,239
Round herring	36,709	19,307	48,877	47,067	56,544	52,815
Anchovy	246,404	258,369	349,175	356,232	417,281	430,211
Total Herring-like Fish	343,930	362,309	476,153	522,880	610,479	695,265
Mackerel:						
Horse mackerel and mackerel-scad ..	383,352	373,969	595,722	432,256	324,374	312,634
Mackerel	290,900	279,491	351,149	294,543	268,444	275,329
Mackerel-pike	90,153	108,930	287,071	522,566	575,087	421,530

Japan (Contd.):

Table 4 - Japanese Catch of Principal Shellfish Species of Importance to the Japanese Canning Industry, 1957-1961 and January-September 1962

Species	Jan.-Sept. 1962	1961	1960	1959	1958	1957
..... (Metric Tons)						
King Crab:						
From motherships	1/	1/	19,346	19,401	20,790	21,284
From other sources	3,734	4,501	5,985	8,052	7,427	4,605
Total king crab	1/	1/	25,331	27,453	28,217	25,889
Korean crab	1/	1/	13,413	10,900	11,062	9,626
Other crab	1/	1/	25,426	19,100	19,791	23,430
Total crab	1/	1/	64,170	57,453	59,070	58,945
Short-necked clams	85,544	95,385	102,491	84,261	85,145	86,933
Other clams	13,346	11,132	15,847	13,114	14,104	25,361
Oysters, shucked	1/	1/	25,977	24,555	20,051	18,649
Common squid	256,312	176,298	480,661	480,667	354,225	364,365
Cuttlefish	48,861	46,416	19,116	19,277	19,115	14,816

1/Data not available.

Table 5 - Japanese Exports of Principal Canned Fishery Products, 1961

Product	1961		1960	
	Quantity	Value	Quantity	Value
	1,000	US\$	1,000	US\$
	Cases	1,000	Cases	1,000
Salmon, trout	1,245	37,094	1,776	57,369
Tuna in oil	1,436	10,205	1,340	8,921
" " brine	2,207	19,181	2,034	16,397
Other tuna	62	370	12	59
Mackerel	938	3,501	497	1,628
Mackerel-pike	405	2,187	1,045	5,786
Pilchard and anchovy	313	2,450	715	5,475
Crab	496	11,856	520	11,659
Oyster	431	2,941	363	2,543
Other fish	1,093	9,249	834	6,387
Total	8,626	99,034	9,136	116,224

Note: Based on Japanese Customs statistics.

Japanese exports of mackerel in 1961 were up 88.3 percent in quantity and 115.0 percent in value from those in 1960. Exports of mackerel-pike in 1961 were down 61.2 percent in quantity and 62.2 percent in value from those in 1960. Japan's landings of mackerel-pike were down sharply in 1960 and 1961.



Fig. 2 - Removing shell from processed crab meat aboard a Japanese crab factoryship.

Shellfish: Crab and oysters are Japan's most important canned shellfish exports. Japanese landings of crab and oysters showed a modest upward trend in 1957-1960.

Note: See *Commercial Fisheries Review*, May 1962 p. 62, April 1962 p. 56, February 1962 p. 77.

* * * * *

JAPANESE AND UNITED STATES STEAMSHIP COMPANIES REACH AGREEMENT ON FREIGHT-POOLING SYSTEM:

At a meeting held in Tokyo, August 2-10, 1962, Japanese and United States representatives of the Japan-Atlantic and Gulf Freight Conference agreed to implement a freight-pooling system for the Japan-New York City service for a period of five years commencing October 1, 1962. Attending the meeting were representatives from nine Japanese companies and officials from three United States steamship companies. The operators agreed that, based on records for the past three years, Japanese operators will share 70 percent of the pool-freight earnings and United States operators 30 percent. Distribution of increased earnings during the five-year period will be the subject of discussion in subsequent meetings. Other members of the conference were invited to become participants in the system. The pooling arrangement was hailed by Japanese representatives as a united front to meet competition of non-conference members on the route and also to prevent excessive competition among Japanese lines. (Fisheries Attache, United States Embassy, Tokyo, August 24, 1962.)

* * * * *

Japan (Contd.):

KING CRAB FALL FISHING IN EASTERN BERING SEA ENDS:

The Japanese Ishiyama Maru king crab mothership fleet (with 8 catcher vessels) left the eastern Bering Sea grounds early in November 1962 after attaining its production target of 400 metric tons of frozen crab meat. The Ishiyama Maru fleet (operated jointly by four Japanese firms) was one of two king crab mothership fleets issued licenses to operate in the eastern Bering Sea king crab fishery in the fall of 1962.

The other fleet, Shinyo Maru (with 4 catcher and 4 portable launch-type vessels), had left the fishing area earlier and had arrived in Japan in October 1962 with its production quota of 350 tons of frozen crab meat. The Shinyo Maru fleet also was operated jointly by four other Japanese firms.

The product consists of frozen "discs," described as crab meat which has been processed and prepared for immediate canning in shore canneries.

The Japanese fall king crab fishing in the eastern Bering Sea ended with the return of the Ishiyama Maru fleet to Japan. (Japanese newspaper, November 9, 1962.)

* * * * *

SHIPMENTS OF FROZEN OYSTERS TO THE UNITED STATES UNDER NEW U. S.-JAPANESE SHELLFISH SANITATION AGREEMENT:

Initial exports to the United States under the new United States-Japanese Shellfish Sanitation Agreement have amounted to 50 metric tons of frozen shucked oysters at a reported price of about ¥520,000 (US\$1,437) per ton, c.i.f. United States. The frozen oyster shipment was packed in an oyster-freezing and canning plant in Hiroshima (opened in 1960) owned by a leading Japanese salmon-canning firm. The firm is the only Japanese company presently certified under the new Shellfish Sanitation Agreement and its officials expect to increase shipments of frozen oysters to the United States. (United States Embassy, Tokyo, November 16, 1962.)

Note: See Commercial Fisheries Review, December 1962 p. 77.

* * * * *

SPERM WHALE OIL PRODUCTION FOR 1962/63 SEASON REPORTED SOLD:

Although sales of baleen whale oil are poor, the Japanese whaling industry is enjoying a boom in sales of sperm whale oil. According to information from the Japan Aquatic Whale Oil Association, the entire output of sperm whale oil for the 1962/1963 factoryship season, estimated at 27,600 long tons, has been



Japanese whaling vessel in North Pacific waters.

sold through advance contracts to United States European, and domestic firms. About 60 percent (16,500 tons) of the estimated production will be delivered to the United States; 600 tons exported to the Netherlands; and 11,500 tons consigned to domestic dealers.

Contract prices for sperm whale oil to be delivered to United States firms are reported to be £86-88 (US\$240.80-246.40) a long ton as compared with £76-82 (US\$212.80-229.60) in 1961 (prices are c.i.f. New York City). Exports of sperm whale oil to the United States in 1961 amounted to 11,000 long tons. (Fisheries Attache, United States Embassy, Tokyo, August 24, 1962.)

日本

Mexico

WEST COAST SHRIMP FISHERY TRENDS, OCTOBER-NOVEMBER 1962:

Shrimp vessels on Mexico's west coast were tied up for about two weeks and did not start fishing until about October 1. The 1961/62 west coast shrimp fishing season was originally scheduled to start on September 15, 1962, but was delayed because of a price dispute between the boat owners and cooperatives. At Mazatlan alone, the delay

Mexico (Contd.):

was estimated to have caused a loss of about 800 metric tons of shrimp valued at US\$1.5 million.

Shrimp landings and exports for Mexico's west coast were reported normal during October and continued about the same into November. Shrimplandings are generally at a peak during the four-month period October through January. Vessels operating out of Mazatlan during those months have landed an average of about 1,800 tons of shrimp with an ex-vessel value of from \$1.5 to \$1.8 million.

About 80 shrimp vessels were operating out of Mazatlan as of mid-November. Prior to October 1, 1962, some 240 shrimp vessels were privately owned and about 40 vessels were owned by the cooperatives. But because the new contract between boat owners and the cooperatives called for about 45 percent of the returns to go to the cooperatives, some of the boat owners were dissatisfied with those terms and this resulted in the sale of some 40 vessels to the cooperatives.

If shrimp fishing continues good, the individual boat owners stand to make money although not as much as they did before. It was reported that, if necessary, the Mexican Government is ready to give assistance to the individual boat owners so that they can operate profitably. (United States Consulate, Mazatlan, Mexico, November 15, 1962.)

* * * * *

CHANGES IN EXPORT DUTIES ON FRESH AND FROZEN FISHERY PRODUCTS:

With the exception of frozen shrimp, almost all frozen packaged fishery products were freed of Mexican ad valorem export duties effective November 27, 1962 (Diario Oficial, November 26, 1962). Before the change, Mexican ad valorem export duties on frozen packaged fishery products ranged from 3 to 12 percent.

Mexican export duties on fresh or iced fish and shellfish were also changed November 27, 1962. The new ad valorem export duties on fresh or iced shellfish are: 3 percent for oysters in shell; 5 percent for abalone (in shell or shucked), clams, crab, octopus, fresh-water shrimp; 10 percent for crustaceans not specified, and mollusks not specified.

The new export duty rates on fresh or iced fish range from 3 to 10 percent ad valorem. A rate of 8 percent ad valorem applies to fresh or iced red snapper, corvina, catfish, and tuna (other than skipjack and albacore). A rate of 5 percent ad valorem applies to most other fresh or iced fish including such species as flounder, mackerel, grouper, pompano, mullet, mojarra, drum, Spanish mackerel, and totuava. There are no specific duties for fresh or iced, and frozen and frozen packaged fish. Only ad-valorem duties are applied. (United States Embassy, Mexico City, November 28, 1962.)



Morocco

FROZEN SARDINE EXPORTS TO FRANCE ENCOUNTER TROUBLE AGAIN:

Dock workers at Lorient, France, refused to unload a shipment of frozen Moroccan sardines though frozen tuna was off-loaded from the same vessel. Agreement finally was reached, however, to permit the provisional storage of the sardines in port pending a final decision.

Moroccan sardine exports to France have been cut off since the violent protests staged by Breton fishermen in July 1962. It was believed that the current difficulties would be overcome in a manner which would permit a resumption of frozen sardine exports to France. (United States Embassy, Rabat, November 2, 1962.)



Netherlands

FOREIGN TRADE, PRODUCTION, AND SUPPLY OF FISH AND MARINE-ANIMAL OILS, JANUARY-JUNE 1962:

Supply and Distribution: The Netherlands supply of marine oils in January-June 1962 was mainly provided by stocks on hand January 1, 1962, and imports. Imports were almost six times greater than domestic production. In the first half of 1962, domestic use absorbed 63.1 percent of the marine oil supply, 7.6 percent was exported, and 29.3 percent was carried over on July 1, 1962.

Imports: The Netherlands imports of marine oils (mostly fish and whale oil) in January-June 1962 were down 15.8 percent in

Netherlands (Contd.):

Table 1 - Netherlands Imports of Fish and Marine-Animal Oils, January-June 1961-62

Product and Origin	January-June 1962			January-June 1961		
	Quantity Metric Tons	Value		Quantity Metric Tons	Value	
		1,000 Guilders	US\$1,000		1,000 Guilders	US\$1,000
Fish Liver Oils:						
Belgium-Luxembourg	2	2	1	5	5	1
West Germany	206	106	29	201	133	37
Iceland	-	-	-	657	363	101
Norway	95	98	27	184	171	47
Japan	52	350	97	53	108	30
Other countries	99	58	16	8	7	2
Total fish-liver oils	454	614	170	1,108	787	218
Fish Oils:						
Belgium-Luxembourg	112	36	10	106	47	13
West Germany	837	336	93	847	463	128
Iceland	-	-	-	1,098	602	167
Angola	-	-	-	375	154	43
United States	9,215	3,675	1,019	4,021	2,252	624
Peru	7,554	3,071	852	9,280	5,127	1,422
Chile	3,500	1,232	342	-	-	-
Argentina	198	92	26	390	204	57
Other countries	537	193	53	546	266	74
Total fish oils	21,953	8,635	2,395	16,663	9,115	2,528
Whale Oil:						
Iceland	1,016	713	198	-	-	-
South-West Africa	-	-	-	410	322	89
Republic of South Africa	-	-	-	1,969	1,521	422
Chile	-	-	-	489	255	71
Japan	3,715	2,316	642	2,467	1,804	500
New Zealand	-	-	-	318	238	66
Landings from whaling factoryships	1,295	829	230	10,945	7,862	2,180
Other countries	20	14	4	88	54	15
Total whale oil	6,046	3,872	1,074	16,686	12,056	3,343
Other Marine Oils:						
Belgium-Luxembourg	-	-	-	2	2	1
Portugal	265	216	60	-	-	-
Peru	505	382	106	100	67	18
Chile	-	-	-	210	154	43
Japan	142	108	30	-	-	-
Landings from whaling factoryships	-	-	-	208	137	38
Other countries	146	122	34	69	52	14
Total other oils	1,058	828	230	589	412	114
Total fish and marine-animal oils	29,511	13,949	3,869	35,046	22,370	6,203

Note: Values converted at rate of 3.605 guilders equals US\$1.

Table 2 - Netherlands Exports of Fish and Marine-Animal Oils, January-June 1961-62

Product and Destination	January-June 1962			January-June 1961		
	Quantity Metric Tons	Value		Quantity Metric Tons	Value	
		1,000 Guilders	US\$1,000		1,000 Guilders	US\$1,000
Fish-Liver Oils:						
Belgium-Luxembourg	18	14	4	14	15	4
West Germany	236	111	31	34	19	5
Other countries	11	14	4	5	6	2
Total fish-liver oils	265	139	39	53	40	11
Fish Oils:						
Belgium-Luxembourg	71	41	11	86	56	16
United Kingdom	-	-	-	747	434	120
West Germany	564	225	62	1,441	812	225
Sweden	98	49	14	-	-	-
Other	62	33	9	66	37	10
Total fish oils	795	348	96	2,340	1,339	371
Whale Oil:						
Belgium-Luxembourg	-	-	-	101	80	22
France	3,909	3,120	865	2,078	1,724	478
Italy	680	541	150	-	-	-
Other	103	54	15	110	86	24
Total whale oil	4,692	3,715	1,030	2,289	1,890	524
Other Marine Oils:						
West Germany	177	142	39	-	-	-
Other	-	-	-	6	6	2
Total other oils	177	142	39	6	6	2
Total fish and marine-animal oils	5,929	4,344	1,204	4,688	3,275	908

Netherlands (Contd.):

quantity and 37.6 percent in value from those in the same period of 1961. Whale oil imports were down 63.8 percent in quantity and 67.9 percent in value. Although fish oil imports were up 31.7 percent in quantity, their value was down 5.3 percent because of generally lower prices. The decline in whale oil imports was due mainly to a sharp drop in imports from whaling factoryships. The increase in fish oil imports (increase mainly from the United States and Chile) is explained by the decline in price, according to trade sources in the Netherlands, which report that fish oil is now widely used in the lower-priced margerines.



Exports: The Netherlands exports of marine oils (mainly whale oil) during the first half of 1962 were up 26.5 percent in quantity and 32.6 percent in value from those in the same period of 1961. Whale oil exports were up 105.0 percent in quantity and 96.6 percent in value. But fish oil exports were down 66.0 percent in quantity and 74.0 percent in value. France was the leading buyer of whale oil from the Netherlands in 1962, while West Germany was the leading buyer of fish oil and fish-liver oil. (Foreign Agri-

Table 3 - Netherlands Whale and Fish Oil Supply and Distribution, January-June 1962

Item	Whale Oil	Fish Oil	Total Marine Oil
. (Metric Tons)			
Supply:			
Opening stocks	25,000	11,425	36,425
Imports	6,046	1/24,052	30,098
Production	4,430	846	5,276
Total supply	35,476	36,323	71,799
Disposition:			
Exports	4,692	795	5,487
Domestic utilization	20,284	25,009	45,293
Total distribution	24,976	25,804	50,780
Closing stocks	10,500	10,519	21,019

1/Does not check with data in table 1. Probably includes a number of marine fats and oil categories not included in table 1.

cultural Service, United States Embassy, The Hague, October 22, 1962.)

Note: See Commercial Fisheries Review, September 1961 p. 94.



Nigeria

POLISH SCIENTIST APPOINTED BY FAO TO HEAD FISHERIES PROJECT:

To carry out a fisheries survey in the western region of Nigeria, the Food and Agriculture Organization (FAO) has appointed a Polish scientist. The scientist, who has a broad training in fisheries, will serve for the next four years as director of the United Nations Special Fund fisheries project. He was due to arrive in Lagos on November 23, 1962. At a later date he will settle in Ibadan where his duty station will be.



In 1956, a 20-foot aluminum surf boat was designed and built for the Federal Fisheries Department of Nigeria by a British shipyard. It was an experimental vessel designed for ring-net fishing. This shows the first trials of the boat and the rudder being placed in position.

Nigeria (Contd.):

From 1960 until his present FAO assignment, the Polish scientist was Scientific Director of the Sea Fisheries Institute of the Polish Ministry of Navigation at Gdynia. In addition he was, until September of 1961, head of the fish technology department of the Polytechnic University at Gdansk.

Before 1960 he was a professor at the Polish Academy of Sciences at Warsaw, where he lectured and worked on various fisheries research projects. He is the author of a number of scientific publications on fisheries subjects.



Norway

EXPORTS OF CANNED FISHERY PRODUCTS, JANUARY-JUNE 1962:

Smoked small sild sardines in oil was Norway's most important canned fish export in January-June 1962, accounting for 40.6 percent of the quantity and 34.6 percent of

Table 1-Norwegian Exports of Canned Fishery Products by Type, January-June 1962

Product	June			Jan.-June		
	Quantity	Value		Quantity	Value	
	Metric Tons	Kroner 1,000	US\$ 1,000	Metric Tons	Kroner 1,000	US\$ 1,000
Smoked brisling in oil	447	2,865	401	2,365	16,155	2,263
Smoked brisling in tomato	109	629	88	183	1,013	142
Smoked small sild in oil	886	3,739	524	6,104	25,946	3,633
Smoked small sild in tomato	234	834	117	605	2,189	306
Unsmoked small sild in oil	30	101	14	110	369	52
Unsmoked small sild in tomato	9	35	5	48	182	25
Kippered herring (Kippers)	273	1,115	156	2,495	10,831	1,517
Unsmoked herring in tomato	7	18	3	65	155	22
Mackerel	105	499	70	363	1,698	238
Roe unclassified	106	481	67	841	2,991	419
Soft herring roe	94	428	60	578	2,364	331
Fish balls	28	72	10	277	739	103
Other canned fish	8	52	7	62	433	61
Shellfish	191	2,156	302	931	9,973	1,397
Total	2,527	13,024	1,824	15,027	75,038	10,509

Table 2-Norwegian Exports of Canned Fishery Products ^{1/} by Country of Destination, January-June 1962

Country of Destination	June			Jan.-June		
	Quantity	Value		Quantity	Value	
	Metric Tons	Kroner 1,000	US\$ 1,000	Metric Tons	Kroner 1,000	US\$ 1,000
Finland	-	-	-	67	390	55
Sweden	60	310	43	183	831	116
Belgium-Luxembourg	94	440	62	359	1,678	235
Ireland	36	115	16	185	629	88
France	28	109	15	242	988	139
Netherlands	12	48	7	78	287	40
United Kingdom	847	3,894	545	2,775	11,440	1,602
West Germany	58	201	28	314	1,211	170
East Germany	-	-	-	616	2,098	294
Nigeria	20	70	10	30	105	15
South Africa Republic	92	377	53	459	1,946	273
Iraq	10	38	5	53	203	28
Canada	105	605	85	516	2,979	417
United States	703	3,638	510	7,217	36,778	5,151
Australia	206	833	117	853	3,421	479
New Zealand	21	79	11	64	260	36
Other Countries	72	250	35	476	1,673	234
Total ^{2/}	2,364	11,007	1,542	14,487	66,917	9,372

^{1/} Does not include exports of canned shellfish.
^{2/} Totals are slightly larger than the combined exports of canned fish (excluding shellfish) shown in table 1.
 Note: Norwegian kroner 7.14 equal US\$1.

the value of total exports of canned fishery products. Combined exports of smoked small sild sardines in oil, smoked brisling in oil, and kippered herring accounted for 73.0 percent of the quantity and 70.5 percent of the value of Norway's exports of canned fishery products in the first half of 1962.

Exports to the United States accounted for 49.8 percent of the quantity and 55.0 percent of the value of Norway's total exports of canned fish in the first half of 1962. The value of shipments to the United States was over three times greater than the value of shipment's to Norway's second most important customer, the United Kingdom. (Norwegian Cannery Export Journal, October 1962.)



Panama

SPINY LOBSTER EXPLORATORY FISHING PROJECT:

M/V "Pelican" Cruise 4 (August 30-September 7, 1962): A one-year exploratory survey for spiny lobsters along the Caribbean and Pacific coasts of Panama was started on August 27, 1962, when the M/V Pelican, a chartered commercial fishing vessel, arrived in Colon, Panama. The survey is being conducted by the U. S. Bureau of Commercial Fisheries through an interagency agreement with the U. S. Agency for International Development (AID) Mission to Panama as an Alliance for Progress program.



Fig. 1 - M/V Pelican, commercial fishing vessel under charter to U. S. Bureau of Commercial Fisheries for exploratory work off Panama.

The Pelican, which has been outfitted with specialized equipment for exploratory spiny lobster fishing, is a 72-foot steel hull shrimp vessel capable of 21 days of continuous operation, with accommodations for a 10-man

Panama (Contd.):

crew and staff. A 17-foot outboard-powered skiff is available for shoal-water work.



Fig. 2 - Fiberglass skiff, loaded with pots and buoys, used for shoal-water exploratory spiny lobster fishing off Panamanian coast.

The objective of Cruise 4 was to test the operational effectiveness of the electronic equipment and fishing gear. Tests were made in the Chiriqui Lagoon area on the northwestern coast of Panama. Six fishing stations were completed with 39 traps set for average periods of 48 hours. Twenty-four reed traps, 5 wire traps, and 10 wooden slat traps were used, weighted and buoyed in the conventional manner. Five traps were lost due to squalls and strong tides. The total catch was limited to a single lobster (*Panulirus argus*) and a few snapper and grouper. Gear modifications consisted of increasing the anchoring weights and using flag and radar buoys.

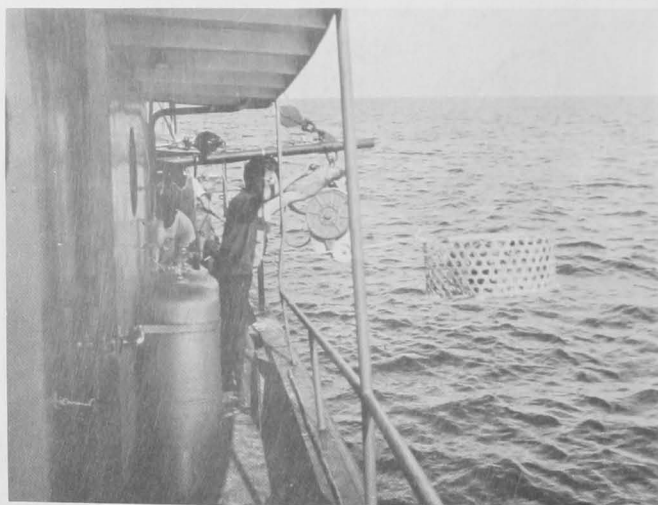


Fig. 3 - Setting a reed lobster pot (nasa) from the M/V Pelican. The hydraulic pot puller can be seen on the boom tip.

M/V "Pelican" Cruise 5 (September 17-28): During this cruise, trap fishing was continued in the San Blas Island area along the northeast coast. A total of 15 trap fishing stations were completed with 90 traps set for average periods of 77 hours. Thirty-seven wire traps, 27 wooden slat traps, and 26 reed traps were used with a variety of baits including shark, barracuda, dolphin, scrap fish, and canned petfood. The total spiny lobster catch consisted of 5 *Panulirus argus*, 4 in wire traps baited with shark meat, and one in a reed trap baited with scrap fish. Only one trap was lost due to tides, and three were considered "donated" to the local Indian fishermen. Two SCUBA diving stations were completed in the area in an attempt to locate spiny lobsters visually. The results were generally negative; only a few were observed. In the San Blas Island area small quantities of spiny lobsters are caught for local consumption by spearing at night within the reef areas.

Trawling Observations on the Caribbean Coast: During cruises 4 and 5, four-trawling stations using a 40-foot shrimp trawl were made in areas where depth-recorder readings indicated smooth bottom. Two tows in the Chiriqui Lagoon caught small numbers of white and brown shrimp (*Penaeus schmitti* and *P. brasiliensis*) but heavy concentrations of bottom debris created unusual trawling problems. Off Icacos Island in 30 fathoms a 1-hour and a 2-hour tow produced catches of 50 and 60 pounds of mixed brown and pink (*P. duorarum*) shrimp, averaging 26-30 count heads-off.

Future Work in Caribbean: Future cruises on the Caribbean coast will combine trap fishing with a thorough habitat reconnaissance. The spiny lobster is restricted to definite rough bottom and reef areas, and successful exploration of the lobsters will depend on knowledge of areas meeting the requirements. Cruises 6 and 7 were to be conducted on the Pacific Coast, in the Gulf of Panama and in the Pta. Burica-Parida Island area.

M/V "Pelican" Cruise 6 (October 10-20, 1962): Between October 10 and 20, fishing was conducted in two areas, directly off Panama City-Balboa, in depths of 3 to 10 fathoms; and at the northern end of the Perlas Islands, in 5 to 10 fathoms.

Off Panama City, 141 traps were fished a total of 17,338 trap-hours, yielding a catch of 166 spiny lobsters (*P. gracilis*), and 5 rock lobsters (*Scyllarides* sp.). At 12 sta-

Panama (Contd.):

tions, the traps fished for periods of 2 to 4 days caught 36 spiny lobsters. The remaining 12 stations were fished for intervals of 5 to 11 days, and caught 130 spiny lobsters. Highest catch in a single trap was 9 spiny lobsters. Only two traps were lost.

Off the Perlas Islands, 28 traps were fished for a total of 561 trap-hours, and produced one spiny lobster. Eight traps were lost due to strong currents.

Individual spiny lobsters ranged from 2 to 54 ounces and averages 20.2 ounces. The mature females (43 percent of the total) were either carrying eggs or had recently released them.

M/V "Pelican" Cruise 7 (October 30- November 16, 1962); Trap fishing was conducted off Punta Chame, in 5-13 fathoms; off Cabo Mala, in 12-15 fathoms, between Coiba Island and Jicaron Island, in 4-10 fathoms; at Montuoso Island, in 8-10 fathoms; and at the Belonos and Parida Islands, in 4-10 fathoms.

Off Punta Chame, 35 traps were fished for a total of 2,833 trap-hours with no lobster catch. An additional 25 traps were lost due to strong currents and shark damage.

At Cabo Mala, 17 traps were fished a total of 245 trap-hours with no lobster catch. Seven additional traps were lost because of strong currents.

North of Jicaron Island, 40 traps were fished a total of 4,172 trap-hours, and 19 P. gracilis and one Scyllarides sp. were caught. Two traps were lost from unknown causes.

At Montuoso Island, 12 traps were fished for 180 trap-hours with no lobsters produced and with no trap losses.

In the Parida Island area, the best fishing to date was experienced. Eighty-two traps were fished for a total of 3,785 trap hours. Total production was 79 P. gracilis. Trap-hours per lobster averaged about 48 compared to 104 hours per spiny lobster off Panama City (Balboa Point). The lobster averaged 19.3 ounces, and males outnumbered the females 2 to 1. The mature females were spawned out. Nine traps were lost from various causes.

The catch rate in the Prida-Belanos area, considering the exploratory nature of these first fishing trials, appears to offer some potential for commercial exploitation. Therefore, Pelican cruise 8 has been rescheduled to permit a more comprehensive evaluation of that area, and simulated commercial-scale production will be attempted.

Notes: (1) M/V Pelican cruises 1, 2, and 3 consisted of U. S. Bureau of Commercial Fisheries cruises off the southeast of the United States.

(2) See Commercial Fisheries Review, Sept. 1962 p. 100.



Peru

SUPPLY, EXPORTS, AND
CONSUMPTION OF EDIBLE
FISHERY PRODUCTS, 1960-1962:

Production of edible fishery products in Peru in 1961 was 8.3 percent greater than in



Fig. 1 - Typical procedure along the northern Peruvian and Ecuadorean coasts is to clean fish on the beach. This scene is at Mancora, Peru.

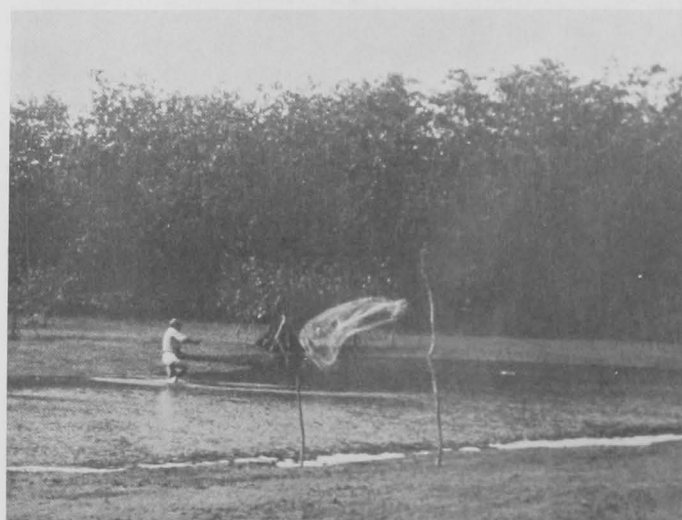


Fig. 2 - Cast netting at Puerto Pizarro. Catch by this type of gear used mainly for home consumption.

Peru (Contd.):

Peruvian Supply, Exports, and Consumption of Edible Fishery Products, 1960-1962							
Year	Supply			Exports	Total Apparent ^{1/} Consumption	Population of Peru as of June 30	Per Capita Consumption Pounds
	Production	Imports	Total Supply (Metric Tons)				
1962 ^{2/}	110,000	500	110,500	35,000	72,000	11,565,000	13.7
1961 ^{3/}	104,000	526	104,526	29,027	70,438	11,250,000	13.8
1960 ^{4/}	96,064	510	96,574	23,971	69,122	10,935,000	13.9

^{1/}Adjusted for changes in year-end inventories.

^{2/}Forecast.

^{3/}Preliminary.

Note: Data is for net weight of edible portion of fishery products.



Fig. 3 - Shrimp vessels beached at Puerto Pizarro. Vessels are brought to this shelter for cleaning and repairing.

1960. During the same period, exports of edible fishery products increased 21.1 per cent, while total apparent consumption in Peru increased only 1.9 per cent and per capita consumption declined slightly. (Foreign Agricultural Service, United States Embassy, Lima, October 8, 1962.)



Philippines

PLAN TO DEVELOP FISHERIES:

During the third quarter of 1962, Philippine officials announced new moves to



Fig. 1 - In 1959, under the guidance of an FAO expert from Japan, fishermen in the little village port of Mariveles, Bataan Province, are carrying sections of a nylon trammel net to the beach for assembling.

strengthen and promote the fishing industry. The plan, as announced by the Secretary of Commerce, aims at making fishing a major industry. In the past, it has provided only a small part of the consumption needs of the country, therefore raising the level of domestic fish production would make a major contribution to the government's socio-economic program and save needed foreign exchange.



Fig. 2 - FAO expert from Japan explaining the value of a nylon trammel net to fishermen assembled on the beach at Mariveles.

The plan would attack the major problems of the fishing industry: financing, lack of harbor facilities, inadequate refrigeration, and the high cost of marketing and operations. It also calls for the establishment of a fishermen's bank and cooperative fish canning factories. Apart from utilizing Japanese reparations there is no indication of how the plan is to be financed. (United States Embassy, Manila, November 19, 1962.)

Philippines (Contd.):

FISHING INDUSTRY DEVELOPMENTS:

About 60 percent of the 1961 fish production in the Philippines was of the sustenance type, followed by about 27 percent from commercial fishing vessels, and 13 percent from fish ponds, according to data furnished by the Philippine Bureau of Fisheries.

Despite increases in the Philippine gross annual fish production (454,890 metric tons in 1961 as compared with 362,927 tons in 1955), the net production deficiency of the Philippines appears to be rising. On the basis of per capita requirements of 26.97 kilograms (59.4 lbs.) of fish established by the National Research Food Council, production in 1961 fell short of requirements by 41.3 percent as compared with 39.9 percent in 1960. To meet requirements in 1961, a total of 74,630 metric tons were imported at a cost in foreign exchange of P34.63 million (about US\$12.6 million). Total available supply was about 529,530 metric tons, or a per capita consumption of about 20 kilograms (44 lbs.) for the year, or still short of the per capita requirements. Of total fish imports of P34.63 million in 1961, about 94 percent was in the form of canned fish (about 79.4 percent canned sardines mostly from the United States, Japan, and the Union of South Africa).

In 1961, more than 39 percent of the landings of commercial fishing vessels came from the Sulu Sea fishing grounds and about 25 percent from the Visayan Sea. Manila Bay yielded about 7 percent of the commercial landings.

There were in 1961 about 1,560 (over 3 gross tons) registered commercial fishing vessels, of which 1,309 were "powered" vessels. Most commercial fishing vessels (about 30 percent of the total number) are actually large motor bancas using Diesel outboard motors. Generally, these large motor bancas are each just a little over 3-gross tons. Close to 43 percent of the catches by commercial fishing vessels are made with the bag-net, and about 40 percent made with the otter trawl.

By the end of 1961, about 125,810 hectares (about 311,000 acres) of fish ponds yielded 60,824 metric tons of fish. About 125,810 persons were employed in fishpond operations. Estimated investments in fish

ponds reached P251.6 million (US\$91,490,900). In terms of area covered, most fish ponds in operation are leased from the Government (about 60 percent).

Most (about 65 percent) sustenance fishing is done by using fish corrals and filter nets, rather than by boat or vessels.

On August 28, 1962, the Secretary of Commerce announced that he had met with officials of the Inter-Island and Deep-Sea Fishing Association, the Chief of Harbor and Port Facilities of the Department of Public Works, and the Director of Fisheries. He announced that the meeting had developed a plan to raise the Philippine fishing industry to the level of a major Philippine industries. The success of the plan would depend upon the solution of problems of the industry: financing, lack of harbor facilities, inadequate refrigeration, and high cost of marketing and operations. As evolved at the meeting the plan envisages the following: establishment of a fishermen's bank; establishment of cooperative fish canning factories; utilization of loans from Japanese reparations; and assignment of an exclusive harbor with all facilities for fishing boats. (United States Embassy in Manila, September 13, 1962.)

Note: Values converted at rate of P2.75 equal US\$1



Rumania

JAPANESE TRAWLERS TO BE PURCHASED:

A Rumanian firm is reported to have signed in late October 1962 a provisional contract with a Japanese shipbuilding company for the delivery of two factory trawlers, each of 3,800 gross tons. This is the first transaction involving vessel export from Japan to the Republic of Rumania. Further vessel exports to Rumania are anticipated since the Rumanian economic mission, which arrived in Japan in October, showed interest in purchasing additional Japanese vessels.

Reportedly, the purchase of the two factory trawlers was transacted at a total price of US\$5.8 million, payable in five years. The first trawler is scheduled to be delivered to the Rumanian firm in late 1963 and the second trawler in early 1964.

Specifications of the trawlers are as follows: over-all length, 278.8 feet; beam 51.2

Rumania (Contd.):

feet; speed, 13 knots. (Nihon Keizai Shimbun, October 27, 1962.)



Senegal

FISHERIES LANDINGS, 1959-1961:

Fisheries landings in Senegal in 1961 were 7.5 percent above those in 1960. In 1961, total landings of all species other than tuna were 11.1 percent greater than in the previous year, but tuna landings dropped 14.0 per-

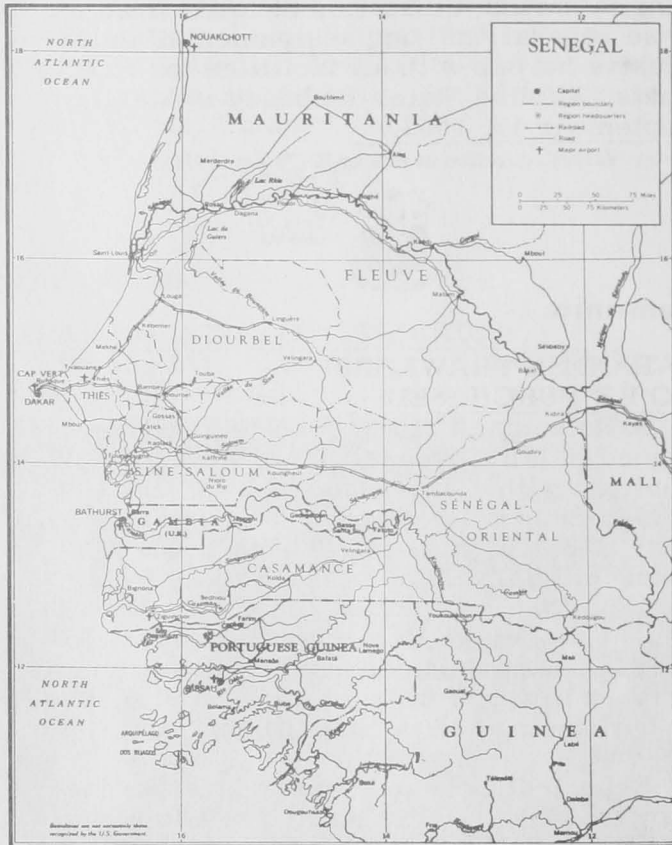
Senegal Fisheries Landings, 1959-61			
Species	1961	1960	1959
Tuna ^{1/}	11,979	13,924	9,880
Other species ^{2/}	92,749	83,488	63,599
Total	104,728	97,412	73,479

(Metric Tons)

^{1/}Mainly landed by French vessels.

^{2/}Mainly landed by Senegalese small vessels.

Note: Included are landings of frozen fish for re-export.



cent, according to the "Report on the First Year of Execution of the Four-Year Development Plan of Senegal, 1961-64" published by the Commissariat General au Plan of Senegal.



South Africa Republic

FISHERIES TRENDS, JANUARY-OCTOBER 1962:

Speaking at the third Harvest Festival of the Sea at Lambert's Bay, South Africa, on October 27, 1962, the South African Deputy Minister of Economic Affairs outlined current trends and plans for South Africa's fisheries as follows.

Total Exports: The annual value of South Africa's exports of fishery products has risen rapidly since 1945 and now exceeds R40 million (US\$55.8 million).

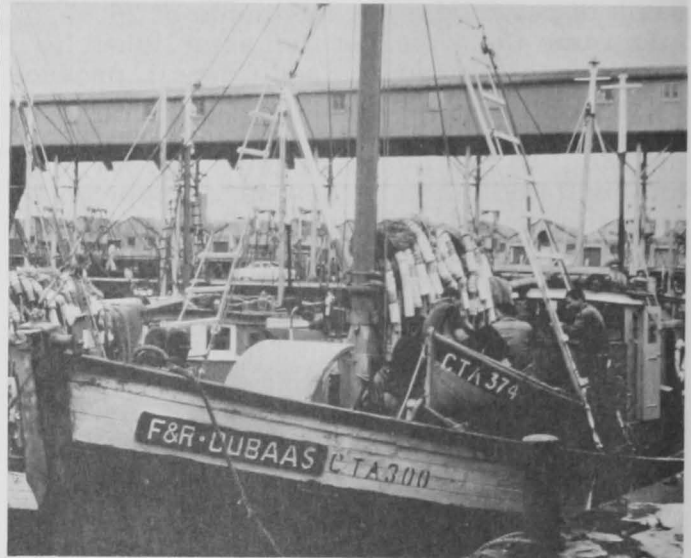


Fig. 1 - A spiny lobster vessel with a few of the crew members relaxing around one of the dinghies used to tend the lobster pots.

Pilchard-Maasbanker Fishery Landings and Exports: The catch of pilchards, maasbanker (jack mackerel), and mackerel in the January-July 1962 season amounted to a record 512,982 short tons, an increase of 3,500 tons over the catch in the same period of the previous year. (Editor's note: Adding the 1962 catch quota in South-West Africa of 435,000 tons, the total landings for the fishery was almost one million tons. In South-West Africa, the fishing season now lasts all year. In the South Africa Republic, the main fishing season, which ends July 31, is followed by a short season in November and December, when only maasbanker and mackerel may be caught. But the second season attracted little interest in 1961, when total landings in November and December amounted to only 2,502 tons.)

The increased capacity of South Africa's pilchard vessels has contributed to the heav-

South Africa Republic (Contd.):

ier landings. In the 1962 season, 27 of the 126 licensed pilchard fishing vessels had hold space for over 100 short tons of fish, and 72 of the vessels could carry 80 tons or more.

The bulk of the pilchard-maasbanker catch is canned or processed into fish meal. About 15 percent of the total catch is canned and exported to 60 different countries where strong competition from Japan, the United States, and certain European countries is being successfully faced. The demand for South African fish meal is also good and the entire 1962 production has been sold.

Harbor Improvements: There is a great need for better fishing harbors along the long coast of South Africa. Expanded facilities for large vessels and fleets are needed. A total of R1,060,000 (US\$1,477,640) has been spent on improvements and extensions to the fish-harbor at Lambert's Bay. Between R7 mil-



Fig. 2 - A large otter trawler at the dock in Cape Town. The vessel is typical of the fleet that fishes for "stock-fish."

lion to 9 million (US\$9.8-12.5 million) is to be spent on fishing harbor improvements at Cape Town. But other harbors will be needed. The Director of Sea Fisheries is investigating the steps necessary for rapidly building fishing harbors. The Railways and Harbors Administration and the Fisheries Development Corporation are assisting in the study. The latter organization has appointed five engineers to help plan new harbors.

Tuna: Preliminary results from efforts to develop a commercial tuna fishery in Cape waters are promising. Two large South African pilchard vessels recently tried long-lining for tuna off the Eastern Cape. Experimental purse-seining for tuna is being spon-

sored by the Fisheries Development Corporation with the chartered vessel Thynnus. A large nylon purse-seine net was imported for use by the Thynnus. A South African Division of Sea Fisheries technologist who studied tuna purse-seine methods in the United States is giving valuable help to the Thynnus.

Fish Meal Venture in Chile: South African capital has been invested to build a fish meal factory in Chile. Engineers and building contractors from South Africa have gone to Chile to build the factory. Five vessel captains and their machinists have left South Africa for Chile to fish for the new factory. A South African engineering firm has received contracts worth R320,000 (US\$446,080) to manufacture machinery for the factory. The venture is in line with the recommendation of the Deputy Minister of Economic Affairs that South Africa expand its fishing industry to operate in distant-water fisheries. (South African Digest, November 1, 1962.)

Notes: (1) One South African rand equals US\$1,394.

(2) See Commercial Fisheries Review, October 1962 p. 66, September 1962 p. 101, and May 1962 p. 45 and p. 68.

* * * * *

CAPE TOWN BOATYARD BUILDS THIRTY FISHING VESSELS:

The year 1962 has been a very busy one for the largest builder of wooden fishing vessels in South Africa. By the end of 1962 the boatyard may have completed 30 vessels, more than double the number built in 1961. With their engines and other equipment, the vessels represent an investment of about R1,000,000 (US\$1.4 million).

Over a ten-year period to the end of 1961 this Cape Town yard has built more than 200 wooden vessels, about 175 of them longer than 50 feet and nearly all of them for the fishing industry of South and South-West Africa.

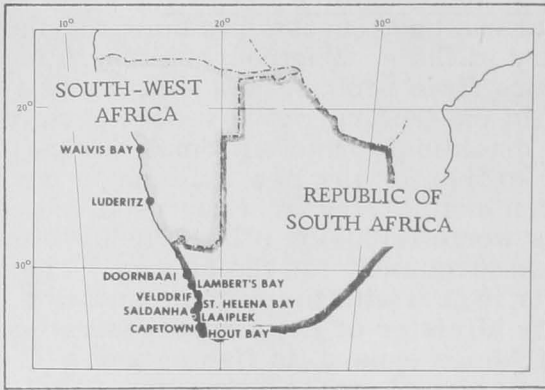
Of the 30 vessels built in 1962, 16 had been completed by early September, 14 more were due to be ready by the end of the year, and another 6 boats on order were due to be completed early in 1963. (The South African Shipping News and Fishing Industry Review, October 1962.)



South-West Africa

EIGHT SOUTH-WEST AFRICA VESSELS TO FISH FOR TUNA:

Eight fishing vessels from Walvis Bay, South-West Africa, at the end of the 1962 pilchard season planned to fish tuna off the Cape.



An interesting feature of the venture is the fact that a modified lampara seine net was to be used.

totalled 1,753 tons in July-August 1962) dropped 35 percent from the same period in 1961. Average ex-vessel prices for fish handled at the Vigo Fish Exchange May through August 1962 are shown in table 1.

The average ex-vessel price for the 4-month period in 1962 was 15.97 pesetas a kilo (12.1 U. S. cents a pound), an increase of 16.7 percent compared with the 13.68 pesetas (10.3 cents a pound) average for the same period in 1961.

Monthly landings at the port of La Coruna February through July 1962 were (in metric tons): February 2,419, March 2,649, April 3,485, May 5,260, June 10,359, July 12,488. The sharp increase in June and July was mainly due to seasonal cod landings after several weeks of fishing off Newfoundland. Retail prices of some representative species of fish in the La Coruna market are shown in table 2.

The shellfish season in the Vigo area started on October 1. Vigo Bay was crowded with hundreds of small rowboats, and thousands of men, women, and children picked clams and other mollusks during low tide. The same activity went on all along the Vigo coast.

It was reported that some vessels were fishing with the use of explosives (dynamite), and that the authorities were making efforts to stop that practice.

Fish Canning Industry: A wage agreement covering about 10,000 workers was signed by the fish canning industry in the Province of Pontevedra. Wage increases were 50 percent for men and 37 percent for women. A similar agreement was being studied for the Province of La Coruna.

Table 1 - Average Ex-Vessel Prices of all Fish at Vigo Fish Exchange, May-August 1962

Year	May		June		July		August	
	Pesetas/Kilo	US¢/Lb.	Pesetas/Kilo	US¢/Lb.	Pesetas/Kilo	US¢/Lb.	Pesetas/Kilo	US¢/Lb.
1962	9.25	7.0	10.75	8.1	14.41	10.9	13.51	10.2
1961	8.82	6.7	9.45	7.1	12.84	9.7	9.94	7.5

Table 2 - Retail Prices at La Coruna Market, May-August 1962

Species	May		June		July		August	
	Pesetas/Kilo	US¢/Lb.	Pesetas/Kilo	US¢/Lb.	Pesetas/Kilo	US¢/Lb.	Pesetas/Kilo	US¢/Lb.
Sardines	10.50	7.9	12.00	9.1	13.50	10.2	16.50	12.5
Horse mackerel . .	9.00	6.8	12.50	9.4	10.00	7.6	11.00	8.3
Hake, small	32.50	24.6	35.00	26.5	40.00	30.2	50.00	37.8
Hake, large	60.00	45.4	65.00	49.1	70.00	52.9	80.00	60.5

The vessels were to be based at Cape Town while fishing tuna off the Cape. They planned to return to Walvis Bay when the new pilchard season starts in February-March 1963. (South African Shipping News and Fishing Industry Review, October 1962.)



Spain

VIGO FISHERIES TRENDS, JULY-AUGUST 1962:

Fish Landings and Prices: Fish landings at the port of Vigo, Spain, in July 1962 totaled 8,158 metric tons and during August they were 7,501 tons, an increase of 11.4 percent compared with July 1961 and 2.1 percent more than in August the same year. Landings increased for horse mackerel, albacore tuna, octopus, mackerel, and small hake, but sardines (which

The fish canning industry is faced with higher production costs resulting from the wage increases. Also, prices are higher for both fish and olive oil. This brought about a general increase in canned fish prices which is bound to affect the export market. The domestic market in Spain was steady during the third quarter of 1962, with a good demand for most products, including sardines counting up to 25 fish in 1/4-club cans. The canned sardine pack was considered normal but the quality was only fair. Cannerys were obliged to take whatever raw fish they could get in order to meet expenses.

Peanut oil for canning fish may soon be authorized, it was reported. But the cannerys are somewhat reluctant to accept peanut oil as a substitute because the quality of their product has traditionally been based on the exclusive use of pure olive oil. Spain's importers of peanut oil have already approached the canned fish industry. The general feeling is that the acceptance of peanut oil by the canned fish industry is just a matter of time.



Tahiti

TUNA BASE PLAN:

A Japanese fishing company, a large United States tuna packer, and a French firm, which were reported in April 1962 to be planning on establishing a joint tuna base in French Tahiti, are said to have received definite assurance from the French Government in Paris that their joint venture would be approved. The Japanese firm is reported to have already submitted an application to the Fisheries Agency to engage in this joint enterprise.

According to plans, each participating firm will invest 1.8 million francs (US\$360,000), totaling 5.4 million francs (US\$1,080,000). Cold-storage facilities are to be constructed at Papeete for the handling and processing of frozen tuna, primarily for shipment to Japan and the United States. Facilities will include a 2,060-ton capacity cold-storage plant, including a sharp-freeze unit capable of handling 70 tons of fish daily, an ice-making unit capable of producing 50 tons of ice daily, and a 200-ton capacity ice storage plant.

The Japanese firm eventually hopes to contract 40 medium-class (40-100 tons gross) Japanese tuna fishing vessels to fish out of its Tahitian base. On the basis of 25 fishing vessels regularly operating out of the Tahitian base, the annual production of frozen tuna is expected to total 15,700 tons. (Suisan Keizai Shimbum, November 23, 1962.)

Editor's Note: This is one of two applications to set up a tuna base at Tahiti. The other application involves a Japanese trading firm and another United States tuna packer.



Taiwan

FISHERIES TRENDS, THIRD QUARTER 1962:

Tuna Industry: Taiwan's exports of frozen tuna in 1962 were expected to reach 2,800 metric tons, as compared with 1,000 tons in 1961. The United States receives most of Taiwan's exports of frozen tuna.

Delivery of 12 tuna long-line vessels being constructed locally with United States aid funds has been postponed until late December 1962 due to changes in the vessels'

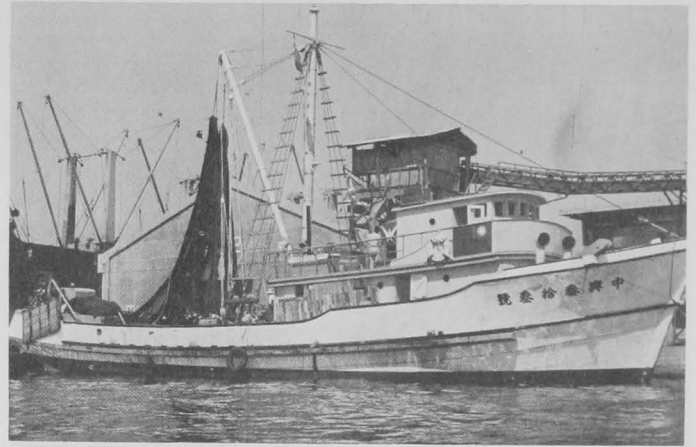


Fig. 1 - A full view of Chung Hsin 33, a wooden otter trawler of the 135-ton class.

specifications. The specifications now call for 160- and 180-ton vessels equipped with freezing equipment. A loan program for vessel owners to add freezing equipment to tuna vessels of over 100 tons which fish for the export market has been arranged by the Taiwan Government. About 28 vessels can qualify for the loans.



Fig. 2 - Bonito caught in a purse seine. They will be scooped out. Note scoop net (far right) on long pole (far left).

The Taiwan Government's application to the International Development Association (IDA) for a loan to finance the construction of large tuna vessels is believed to be under active consideration. The Government requested a loan from IDA to build ten 300-ton, four 500-ton, and two 1,000-ton tuna vessels.

Trawl Fishery: An industry conference to review complaints and problems of the fisheries industry was convened in July 1962 by the Government's Agriculture Planning and Coordination Committee. The conference recommended that the construction

Taiwan (Contd.):



Fig. 3 - Fishermen unload their catch in the wharf at Nan Fang Ao, Taiwan.

of additional conventional trawlers be discouraged, but that midwater trawls and trawls with larger openings be tried. Since prices for trawl fish in the domestic market have been depressed by an oversupply, the Government is not encouraging the fishery. The



Fig. 4 - Pulling in the "bag" of a beach-seine net in which the catch is concentrated. This is a popular style of fishing in small communities of Taiwan.

conference recommended that work be done to promote the processing of fish as a means to help use surplus catch during the glut season and that marketing facilities be improved

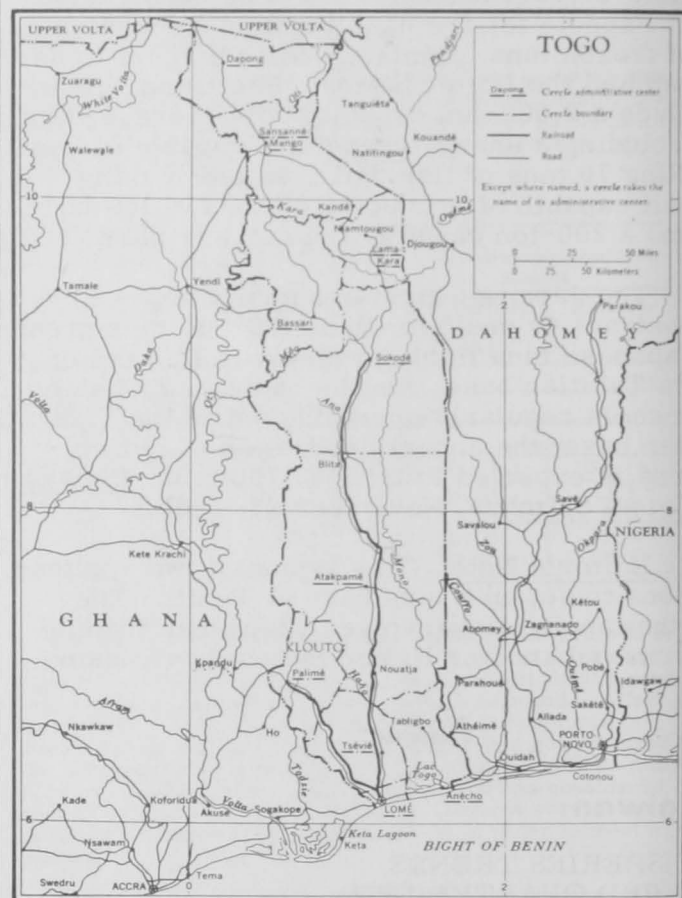
through the use of cooperatives. (United States Embassy, Taipei, October 19, 1962.)



Togo

FAO FISHERIES EXPERT DESCRIBES PROJECT TO IMPROVE FISHING INDUSTRY:

The fishermen along the 30-mile coast of Togo, located on the northwest edge of the Gulf of Guinea, had given little thought to the use of engine-powered fishing boats until early in 1962 when a fisheries expert of British Guiana, engaged by the Food and Agriculture Organization (FAO), started demonstrating outboard motors.



Togolese fishermen use their long canoes which are made of the wood of samba or cheesewood trees. While graceful and picturesque, these primitive craft take a long time to make and, as only coconut palms grow along Togo's coast, the boats cannot be constructed locally. They have to be bought in neighboring Ghana. However, there are about 240 of boats owned by Togolese fishermen's families, and every year about another

Togo (Contd.):

130 of the little vessels owned by Ghanian fishermen join the Togolese fleet. Each boat has a crew of 9, 4 on each side to paddle and one to steer, and, on an average, there are 4 women fishmongers per craft. The whole fisherman's family participates in the processing and marketing of the fish. In all, about 300,000 people subsist from this primitive fishing industry.

Togo, like many other African countries, suffers from a shortage of protein-rich food and the Government realizes that the development of fisheries could make a valuable contribution to the relief of this problem. The Food and Agriculture Organization is working on a project to improve fishing gear and methods so that more, better, and cheaper fish be made available for Togolese consumers.

"I came here as a general adviser," stated the British Guinea fisheries expert in an interview in Lome, the capital city of Togo, "but neither the Government nor I myself knew where exactly to start a development program for fisheries. . . . One of the first things I did was to teach my assistants to salt and dry the fish better in order to improve its quality and keeping capacity. With my two assistants we went from village to village demonstrating this small, but most important, improvement in fish processing. I also had a look at the village ovens where the fish is smoked. I realized that the method used was good, but that larger quantities of fish could be smoked with the same amount of fuel by slightly changing the design of the ovens. . . .

"Of course, my work is not limited only to fish processing," stated the fisheries expert. "What the Togolese fisheries industry needs is a real revolution in fishing methods. At present most of the fishing consists in going offshore, dropping a huge net in a half circle, and then pulling it back on-shore; a back-breaking job for very poor catches. The fishermen should go and get the fish at sea using surface, midwater, or bottom nets, fishing pots, traps, floating lines and other simple equipment. I therefore demonstrate these simple methods with the fishing boat I was given by the Government. Through extension work I hope to convince the fishermen gradually to adopt my methods. My practical demonstrations are supplemented by film shows. . . .

"Mechanization, of course, is also a very important aspect of the work. Through the use of small outboard motors the catches could be considerably increased. Two private firms in Lome have each given me an outboard engine for demonstration and in a matter of a few weeks I was able to convince two of the richer fishermen to buy a motor. Under the Freedom from Hunger Campaign, Togo will be among the first recipients of outboard motors, offered by the American Outboard Marine Corporation. This should be a considerable step forward for the Togolese fisheries industry.

"I realize, of course, that I cannot deal with all the technical aspects of the fisheries industry without increasing the number of progressive and trained fishermen in the country. I therefore concentrate on the educational aspects of the program. . . . The United States Technical Assistance Agency (AID) and the Federal Republic of Germany have also offered to finance several fellowships on fish technology, smoking, and processing. The Peace Corps will send eight volunteers to Togo to assist me in my work.

"It is too early yet to assess the result of my one-year assignment," he stated, "but the developments up to now are far beyond my expectations and I am convinced that Togo is on its way to establishing a modern fishing industry which will increase the income of the fishermen and supply protein-rich food to a country badly in need of meat and fish." (Food and Agriculture Organization, Rome, Italy, November 18, 1962.)



Tunisia

TERRITORIAL WATERS AND FISHING LIMITS EXTENDED:

The new law (No. 62-35, October 16, 1962) amends the Tunisian decree of July 26, 1951, to extend both territorial waters and fishing limits.

The effect of the new legislation is to establish as Tunisian territorial waters a band 6 miles about the coast from the Algerian border on the east to Ras Kapoudia, and out to the 50-meter (about 27 fathoms) isobath from Ras Kapoudia to the Libyan frontier on the west. In addition, a fishing zone reserved to Tunisian flag vessels is established to a distance of 12 miles from a base line,

Tunisia (Contd.):

between the Algerian frontier and Ras Kapoudia. (United States Embassy, Tunis, October 19, 1962.)

Note: See Commercial Fisheries Review, December 1962 p. 85.



United Kingdom

FISHERY LOANS
INTEREST RATES REVISED:

The British White Fish Authority announced the following interest rates on loans made to processing plants as from October 6, 1962: on loans for not more than 15 years, 7 per cent, decrease $\frac{1}{4}$ percent; on loans for more than 15 years, but not more than 20 years, $7\frac{1}{8}$ percent, decrease $\frac{1}{8}$ percent.

The rates on loans made for fishing vessels, new engines, nets, and gear were unchanged. (The Fishing News, October 12, 1962.)

Note: See Commercial Fisheries Review, November 1962 p. 83.

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WHITE FISH AUTHORITY SETS UP
NEW ENGINEERING UNIT:

The engineering unit which the White Fish Authority (WFA) is setting up in Hull to develop new techniques in the fishing industry was due to begin operating fully by the end of 1962, a spokesman for the WFA stated.

The aim is for four technicians with a small clerical staff to work under a director.

It is not proposed, the spokesman said, that vessels for experimental techniques would be chartered by the WFA. The WFA hopes to work in cooperation with trawler owners in Hull in the development of new techniques to handle and unload catches at sea and in port, to deal with new methods of refrigeration, and other new shipping arrangements. (Fish Trades Gazette, August 18, 1962.)



CANADIAN SALMON CAUGHT OFF GREENLAND

On October 10, 1960, an Atlantic salmon 71 cm. (28 inches) total length, weighing 3.7 kilograms (8.2 lbs.), and carrying Fisheries Research Board of Canada tag No. 1,616, was caught in the sea off Tassiusaq (65°06' N., 52°08' W.), near Napossok to the south of Sukkertoppen, Greenland. The fish was tagged on May 22, 1959, in the estuary of the Miramichi River near Chatham, New Brunswick (47°04' N., 65°28' W.), as a smolt 17.5 cm. (6.9 inches) in total length. It was one of 3,500 smolts tagged there in May and June 1959.

Scales from the recaptured fish show three years of river life typical of Miramichi River smolts, followed by a first sea year of moderate growth and a relatively wide winter band. The second sea year includes a period of fast growth followed by a summer check, then a period of fast growth continuing to the time of capture in October 1960.

This recapture represents the longest migration yet recorded, about 1,500 miles, for Canadian Atlantic salmon the river of origin of which is known through fin-clipping or tagging. Many fin-clipped salmon from Quebec, New Brunswick, and Nova Scotia rivers have been recaptured, however, in sea fisheries as far away as Newfoundland and Labrador. The recapture also lends some support to the suggestion that salmon from both sides of the North Atlantic share common feeding grounds. The first direct evidence of Scottish salmon reaching Greenland waters was provided by the recapture in October 1956 near Sukkertoppen, Greenland, of a fish tagged as a kelt in November 1955 at Loch na Croic, Ross-shire. (Nature, October 21, 1961.)