



FOREIGN

International

INTERNATIONAL PACIFIC HALIBUT COMMISSION

SURVEY OF HALIBUT AND BOTTOMFISH OFF ALASKA:

The Governments of Canada and the United States are undertaking a comprehensive survey of the distribution and abundance of halibut and other bottom-living fish in the waters on the continental shelf off Alaska. In this region of the Pacific coast, Canada and the United States have jointly participated in an important fishery for halibut for nearly half a century.

The two Governments requested the International Pacific Halibut Commission to plan and conduct the survey in conjunction with its regular investigational program. This Commission has managed the Pacific halibut fishery on behalf of Canada and the United States for the past 35 years and has rebuilt the once-depleted Pacific Coast halibut stocks that produced only 44 million pounds annually prior to regulation but now yield in excess of 70 million pounds each year. Such improvement is unparalleled in any other marine fishery in the world. Most fisheries for other bottomfish are uncontrolled and are in the declining stage.

The program calls for continuous trawling operations during the next 12 months, rigorous winter weather notwithstanding. It will cover the region from the northeastern end of Kodiak Island as far west as Unimak Pass, a distance of 550 miles along the coast involving about 40,000 square miles of area.

From 15 United States and Canadian vessels that tendered bids, 3 have been chartered for the year's operations, the Arthur H., the Morning Star, and the St. Michael.

At the outset each vessel will work a section of the survey area but during the rigorous and lonely months of winter the vessels, though sturdy, will work together.

Each vessel will be manned by its captain, three experienced trawl fishermen, and three members of the Commission's staff who have been secured from the University of British Columbia for the purpose. At the outset of the operation and from time to time during the year permanent members of the Commission's staff will accompany each vessel in a supervisory capacity.

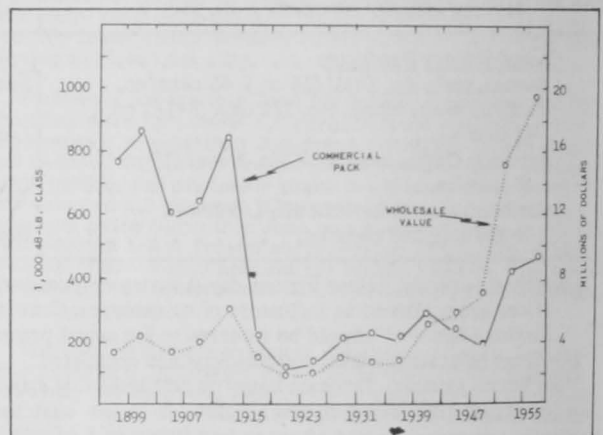
Agencies in both countries, the Fisheries Research Board of Canada and the U. S. Bureau of Commercial Fisheries, have provided all possible aid to the project and will integrate any offshore exploratory fishing for bottomfish with the program of the Commission.

In scope and intensity the program eclipses anything that has ever been done before by Canada and the United States in this field. The program will contribute information of inestimable value to Canada and the United States in their joint management of the Pacific halibut fishery.

INTERNATIONAL PACIFIC SALMON FISHERIES COMMISSION

RESEARCH ON FRAZER RIVER SALMON RUNS PLANNED TO MEET CHANGING CONDITIONS:

Production of Fraser River sockeye or red salmon for the last four-year period has increased 450 percent over similar cycle periods following the Hell's Gate slide. Wholesale value of the catch has increased 10 times, partially due to higher selling prices for the canned product.



Fraser River sockeye salmon packs averaged for each four-year cycle from 1896 to 1959 inclusive. The Johnstone Strait catch is included only for 1958, when unusually large numbers of Fraser River sockeye were taken in that fishery. Average packs and values calculated from data in Pacific Fisherman (1914-1960).

The Commission is confident that complete rehabilitation of Fraser sockeye as well as pink salmon can be accomplished in a few years. However, it is concerned about how to further develop and protect this great job-producing resource to fulfill the needs of a rapidly increasing population.

To meet the challenge of industrialization and the required protection of the fisheries resource, the Commission has substantially increased its activities during the past year.

International (Contd.):

Construction of a unique laboratory will commence shortly in which the water supply can be completely controlled with respect to temperature and chemical content. Proposed research at the laboratory will include studies into the weaknesses of salmon hatcheries, adverse effects of environmental changes due to potential flood control and hydroelectric projects, and the limits of adjustability of salmon populations in transplantation from one watershed to another.

Some of these studies should provide methods for artificially developing the latent potential of the salmon resource. There is also a drastic need for information to protect the resource where possible from the serious effects of industrialization as experienced elsewhere.

The Salmon Commission is working on the problem of development and protection of the salmon resource with increasing vigor to avoid the trial-and-error methods in conservation that have proven to be expensive and often unsuccessful.

Man-made spawning streams are also being studied on a full-scale experimental basis. An artificial spawning channel 3,500 feet long has just been completed for pink salmon at Seton Creek near Lillooet, B. C. The channel is expected to provide spawning area for 10,000 pink salmon of this year's run.

To further meet the problem of poor salmon runs due to unstable spawning grounds, a full-size experimental hatchery has been completed and is now in operation on Upper Pitt River. New methods based on previous

Commission studies are being used to improve the operating efficiency of the Station. Other improvements in the operation of the Station will be added when experimentally justified.

New field projects will be undertaken as rapidly as experiments at the new laboratory justify the expense so that the Fraser salmon resource will continue to provide increased wealth to the region. Close liaison will be maintained with other fisheries research agencies to permit the testing and application of any new information as rapidly as possible.

JAPAN-SOVIET NORTHWEST FISHERIES COMMISSION

JAPAN-U. S. S. R. SALMON PACT SIGNED:

Japan and the Soviet Union signed an agreement on May 21, 1961, which established Japan's salmon catch quota for this year in the North Pacific treaty area under the Northwest Pacific Fisheries Commission at 65,000 metric tons--2,500 tons less than last year. The Japan-Soviet Commission's fifth annual meeting began in Tokyo on February 6, and was marked by compromises on the part of both countries as to the size of the quota. At the outset, the Soviet Union had proposed a 50,000-ton catch for Japan, while the Japanese delegation negotiated for 80,000 tons. The Soviet Union's 1961 salmon catch target is 80,000 tons, 10,000 tons above the target for 1960.

The Commission also reached agreement on the following restrictions for Japanese fishing in the North Pacific treaty area: (1) establishment of a new closed area 151.5° to 155° E. and south of 48° N.; (2) establishment of a restricted area north of 56° N.;

Japan and U.S.S.R. North Pacific Salmon and Trout Catches, 1960

Species	U.S.S.R.	Japan					Asian Total
		Gill-net Catches		Long line	Coastwise ^{1/}	Total	
		Mothership	Land-Based				
..... (Metric Tons)							
Red	4,000	28,047	2,454	74	-	30,575	34,575
Chum	43,300	20,584	19,070	3,278	533	43,465	86,765
Pink	19,600	2,459	28,080	5,534	<u>2/21,950</u>	58,023	77,623
Silver	1,900	2,387	3,362	228	-	5,977	7,877
King	700	499	519	99	-	1,117	1,817
Total	69,500	53,976	53,485	9,213	22,483	139,157	208,657

^{1/}Data available through August only.

^{2/}Includes Masou salmon, a species peculiar to Oriental waters.

International (Contd.):

(3) observance of the two closed areas south of 48° N. agreed on at the 1960 meeting (during the negotiations, Japan had demanded the abolishment of the no-fishing area established in 1960 on the understanding that it would be in effect for only one year); (4) total catch of red salmon to be limited to 7,750,000 red salmon (about 14,000 tons); (5) catch of red salmon in area west of 165° E. longitude to be limited to 2.5 million reds (that means that the balance of 5,250,000 fish is to be taken between 165° E. and 175° W.); (6) catcher vessels to carry maximum of 330 tans (one tan equals approximately 150 feet) of gill nets per vessel; (7) catcher vessels to carry gill nets of which at least 50 percent are composed of nets with mesh size (knot to knot) of 65 millimeters (about 2.56 inches); and (8) Japan's king crab quota is 260,000 cases (48 6.5-oz. cans). Russia's king crab quota was set at 390,000 cases (96 6.5-oz. cans). (Suisan Keizai Shimbun, March 17, May 13, 21, & 25; Nippon Suisan Shimbun, May 24, 1961.)

NORTHWEST ATLANTIC FISHERIES COMMISSION

ELEVENTH ANNUAL MEETING:

Greater protection and conservation of fish and seal populations in the Northwest Atlantic fishing areas were promised at the eleventh annual meeting of the International Commission for the Northwest Atlantic Fisheries (ICNAF) concluded in Washington, D. C., on June 10, 1961.



Representatives of 12 nations engaged in fishing operations in the ICNAF area, which comprises more than one million square miles, adopted measures designed to produce greater uniformity in the ICNAF conservation regulations.

The six-day meeting also produced agreement among the delegates to take steps toward the conservation of the fast-declining population of harp and hood seals in the area. Following a report by the Canadian delegation that the harp and hood populations "during the last decade have been reduced by 50 to 65 percent," the Commission passed a resolution to amend the present Convention to provide (1) that harp and hood seals of the

Northwest Atlantic area be brought under the provisions of the International Convention for the Northwest Atlantic Fisheries and (2) that a separate panel be established for the purpose of dealing with the conservation requirements of the harp and hood seal populations.

The Commission elected the following officers to serve for two years: Commission Chairman: George R. Clark, Deputy Minister of Fisheries, Ottawa, Canada. Commission Vice Chairman: B. Dinesen, Under Secretary of the Fisheries Ministry, Copenhagen, Denmark. The following were elected to serve one-year terms: Chairman of the Standing Committee on Research and Statistics: R.H.J. Beverton, Deputy Director of Research, Ministry of Fisheries Laboratories, Lowestoft, Suffolk, United Kingdom. Chairman of the Standing Committee on Finance and Administration: J. H. MacKichan, General Manager of United Maritime Fishermen, Limited, Halifax, Nova Scotia.

The International Commission for the Northwest Atlantic Fisheries was established under a convention between ten North American and European countries which came into force on July 3, 1950. Since then, two additional Governments have become parties to the convention, namely, the Federal Republic of Germany (1957) and the U. S. S. R. (1958). The present member-nations are: Canada, Denmark, France, Federal Republic of Germany, Iceland, Italy, Norway, Portugal, Spain, Soviet Union, United Kingdom, and United States.

The Commission is engaged in planning and coordinating programs of fisheries research which are carried out by the fisheries agencies of the member governments in the Northwest Atlantic Ocean. Its meetings are largely devoted to reports and discussion of current research and plans for future years. In addition, from time to time, the Commission recommends to Governments the adoption of regulations for certain fisheries of the area, for purposes of conservation of the resources. The Commission is composed of one to three Commissioners from each contracting government and meets annually at Halifax, Nova Scotia, its headquarters, or at some other place in North America or Europe.

International (Contd.):

FOOD AND AGRICULTURE ORGANIZATION

FISH IN NUTRITION MEETING PLANS ALMOST COMPLETED:

A total of 25 major articles summarizing the world's knowledge on nutrition and public health attainments in five major divisions of fishery technology will be presented at the International Conference on Fish in Nutrition to be held in Washington, D. C., September 19-27, 1961. In addition there will be 44 short manuscripts, each presenting the results of research into the many nutritional aspects of fishery products.

Six outstanding nutrition and public health authorities from the United States, Europe, and the Far East have been called to FAO headquarters in Rome, Italy, to thoroughly review and edit the papers. In addition, two fishery technologists of the Bureau of Commercial Fisheries and a consultant from the National Institutes of Health have gone to Rome to offer technical assistance in the editing.



The meeting is sponsored by the Food and Agriculture Organization of the United Nations. The Department of State is the official host. The Bureau of Commercial Fisheries, U.S. Fish and Wildlife Service, is in charge of arrangements with travel funds for foreign researchers being provided by a U.S. Public Health Service grant. An official insignia for the meeting has been adopted by the Food and Agriculture Organization.

The Conference on Fish in Nutrition, which is the first of its kind ever held, will be held in the auditorium of the new State Department building. Fifty nations will be represented by approximately 400 delegates. Representatives of the fishing industry of the United States met in Washington some months ago and pledged their support of the meeting. Some segments of the industry will provide varied entertainment for the guests, while others will acquaint the visitors with United States fish processing and distribution methods by providing tours in certain key industries and areas.

The agenda now being considered includes as main topics such things as the role of fish in world nutrition, the chemical composition of fish and fishery products, contribution of fish and fishery products to the diets of various nations; fishery products in animal nutrition; and possibilities for increasing fish consumption.

Under the main titles are reports on the amino acid composition of the protein in fishery products; fish oils and their role in nutrition; food values of fresh fish compared with processed fishery products; minerals and vitamins in fish; fish in dietetics, including geriatric diets; incidence of world malnutrition, by regions; fish flour and its importance in preventing malnutrition; fish derivatives in feed for swine, calves, poultry, and furbearing animals; economic and social incentives for increasing production; and methods of consumer education.

IRRADIATION OF FOOD

EUROPEAN INFORMATION CENTER ESTABLISHED IN FRANCE:

A European Center of Information about the irradiation of foodstuffs has just been created following an agreement between the European Agency of Productivity of the Organization for European Economic Cooperation (O.E.E.C.) and the Center of Nuclear Investigations, Saclay, France. M. Pierre Leveque was nominated Director of this Center, the headquarters of which are also in Saclay.

The functions of the Center especially include the publication of an information bulletin on the irradiation of foodstuffs which will be issued 4 times a year in English and in French. The Center will also be a linking element between scientific workers and technicians specialized in food problems and between government spheres and the manufacturers interested.

INTERNATIONAL JOINT COMMISSION
(UNITED STATES AND CANADA)

PASSAMAQUODDY TIDAL POWER PROJECT NOT ECONOMICALLY FEASIBLE:

The Canadian Secretary of State for External Affairs announced on May 1, 1961, the release of the International Joint Commission's Report on the International Tidal Power Project in Passamaquoddy Bay in Maine and New Brunswick. The Commission found that the price of power from the Tidal Power Project, either alone or in combination with auxiliary power sources, would not be competitive with the price of power from alternative steam-electric plants and that, therefore, the project is not economically feasible under present conditions. The Commission recommended, however, that development of the project be viewed as a long-range possibility which would have better prospects of realization when other less-costly energy sources available to the area were exhausted. The Commission also pointed out that the economic feasibility of the project might be affected by future changes in the costs and benefits considered in the present evaluation and added that Governments might wish to consider the desirability of crediting the Tidal Project with certain public benefits not included in the Commission's determination of economic feasibility.

International (Contd.):

In determining the impact of the project upon the local economies of Maine and New Brunswick, the Commission found that industrial development would not be appreciably affected, although short-term benefits resulting from expenditures for goods and services might be expected. The Commission noted that the creation of two large salt-water lakes would provide additional facilities for recreation and that the tidal dams, locks, and gates could serve as foundations for an international highway connecting the present coastal highways in Maine and New Brunswick. The Commission recognized that the existence of a high pool in Passamaquoddy Bay might stimulate greater traffic to shipping points in the area. In the Commission's view, the project would not be detrimental to the region's important sardine industry and would have only a minor effect on other fisheries if appropriate remedial measures were undertaken.

Note: See Commercial Fisheries Review, June 1960 p. 68, May 1960 p. 36, March 1960 p. 38.

CENTRAL AMERICAN ECONOMIC INTEGRATION

TREATY COMES INTO FORCE:

According to officials of the Organization of Central American States (ODECA), the General Treaty of Central American Economic Intergration came into effect on June 3, 1961, eight days after Nicaragua deposited its ratification with ODECA.

1. General Treaty of Central American Economic Integration ratifications: Guatemala--May 5, 1961; El Salvador--May 8, 1961; Nicaragua--May 26, 1961. In force among the three countries.

2. Constitutive Agreement of the Central American Bank of Economic Integration ratifications: Guatemala--May 5, 1961; El Salvador--May 8, 1961; Honduras--May 5, 1961; Nicaragua--May 24, 1961. In force among the four countries.

3. Protocol to the Central American Agreement on Equalization of Import Charges (Second Protocol) ratifications: Guatemala--May 5, 1961; El Salvador--May 8, 1961; Nicaragua--May 26, 1961. In force among the three countries. (United States Embassy, San Salvador, June 9, 1961.)

LATIN AMERICAN FREE TRADE ZONE AND FREE TRADE ASSOCIATION

TREATY RATIFIED:

On May 2, 1961, representatives of Argentina, Brazil, Chile, Mexico, Peru, and Uruguay deposited in the Uruguayan Ministry of Foreign Relations, Instruments of Ratification of the Treaty of Montevideo, signed in that city February 18, 1960, which establishes the Latin American Free Trade Zone and the Latin American Free Trade Association. (United States Embassy, Lima, May 19, 1961.)

EUROPEAN FREE TRADE ASSOCIATION

REDUCTION OF DUTIES BETWEEN MEMBER COUNTRIES:

The British Government announced on June 2 an order on import duties which was scheduled to take effect on July 1, 1961, in accordance with the decision of the EFTA (European Free Trade Association) in February to reduce by a further 20 percent the duties on industrial products traded between the member countries.

Following the initial 10 percent reduction with which the EFTA group went into business in July 1960, this will mean that the EFTA countries will have cut their tariffs to 70 percent of the basic rates. This step is in accordance with the policy of the EFTA Seven to keep in step with the tariff reductions of the EEC (European Economic Community) Six: the latter group has also achieved a 30 percent reduction. (British Record, June 8 1961, issued by British Information Services)

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FINLAND AND OUTER SEVEN COUNTRIES SIGN AGREEMENT OF ASSOCIATION:

Finland and the seven member countries of the European Free Trade Association (EFTA) have signed an agreement whereby Finland is to become associated with the EFTA.

All the countries are expected to ratify this agreement and deposit the proper instruments of acceptance before July 1, 1961. Assuming ratification, the first tariff reductions and the first relaxation of quantitative import restrictions between Finland and the EFTA countries will take place on that date.

Under the agreement Finland will reduce its duties toward EFTA member countries by

International (Contd.):

30 percent for most products and the member states of EFTA will extend to Finland the 20-percent reduction already made among the members as well as the further 10-percent reduction to be made on July 1, 1961. Finland also is accorded the same rights and assumes like obligations in the commercial and economic fields as the EFTA countries have among themselves.

The reduction and eventual abolition of tariff and other trade barriers between Finland and the members of EFTA are to take place, with a few exceptions, according to the time schedule established by the members of EFTA in the Stockholm Convention originally creating the European Free Trade Association.

Finland is authorized to reduce its duties on some goods competing with products manufactured by developing industries at a slower pace. The date of final elimination of the duties, however, will be the same as for other duties--January 1, 1970.

A significant part of Finland's foreign trade is regulated by bilateral trade agreements. To allow Finland to meet its commitments under these agreements, existing quantitative import restrictions may be maintained on a limited number of goods. Finland must, however, apply these restrictions in such a way that suppliers in the EFTA countries are given the opportunity of competing with other suppliers on fair and equal terms for a reasonable share of the Finnish market in these products.

Under the agreement between Finland and the EFTA countries, a new council, known as the Joint Council, will be established to deal with all matters pertaining to relations between Finland and the EFTA member states. The Joint Council will function independently from the EFTA Council; however, a considerable degree of coordination between the two bodies is expected.

The agreement of association was signed on March 27, 1961. (Foreign Commerce Weekly, May 15, 1961.)

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CONVENTION TO APPLY TO GREENLAND:

The Danish Government, pursuant to provisions of the EFTA convention, has formal-

ly declared that the convention applies to Greenland effective July 1, 1961.

In view of Greenland's special economic, social, and demographic conditions, however, certain special arrangements have been accepted by the other EFTA member states. Benefits from an "equalization fund" for the purpose of stabilizing the income of Greenland producers and the right to establish and operate business concerns in Greenland will remain conditional upon Danish nationality and permanent residence in Greenland. Furthermore, Denmark retains its right to extend at any time before July 1, 1970, the Danish customs duties and quantitative import restrictions to Greenland, provided that such duties and restrictions are reduced and eliminated progressively in accordance with Articles 3, 10, and 11 of the EFTA convention. At present all imports are admitted into Greenland duty-free. (United States Embassy, June 15, 1961.)

GENERAL AGREEMENT ON TARIFFS AND TRADE

REPORT ON EIGHTEENTH SESSION OF THE CONTRACTING PARTIES:

The Contracting Parties to the General Agreement on Tariffs and Trade (GATT) concluded their Eighteenth Session at Geneva on May 19, 1961. At this meeting, which began May 15, 43 countries participated. In addition a large number of newly-independent countries, which are in process of deciding on the question of their future participation in the Agreement, attended as observers.

Principal matters affecting the expansion of international trade discussed at the meeting were: Plans for a ministerial meeting to be held in late November; tariff negotiations, the second phase of which was scheduled to start on May 29; a new program for offering technical assistance in the commercial policy field to newly-independent countries; the new arrangements recently concluded in connection with Finland's association with the European Free Trade Association (EFTA); efforts to accelerate the removal of import restrictions; and the admission of Sierra Leone to the ranks of the Contracting Parties.

Finnish Association with EFTA: Finnish association with EFTA was supported by the United States. It will offer Finland scope for strengthening her economy and for developing traditional ties with her Scandinavian neighbors, as well as with other members of EFTA. The agreement bringing about this as-

International (Contd.):

sociation generally follows the lines of the Stockholm Convention, establishing the EFTA, and has been referred to a working party for further examination.

In presenting this agreement to the Contracting Parties, Finland drew attention, however, to a trade agreement concluded with the Soviet Union under which Finland will gradually extend free entry to Soviet goods, though like treatment is not to be extended to other countries outside the EFTA. It was generally agreed that this action conflicts directly with the most fundamental obligation of the General Agreement, namely the commitment to conduct commercial relations with one another on the general basis of equality of treatment, or non-discrimination. As concerns tariffs, this "most-favored-nation principle" means that, with certain exceptions including special arrangements which create thorough-going customs unions or free trade areas, the trade of each Contracting Party is to be treated no less favorably than that of any other country. The Fenno-Soviet agreement is a clear violation of this fundamental obligation, since Soviet goods will eventually enjoy tariff treatment far more favorable than goods of other countries.

The United States and other countries expressed serious concern with this deviation from the most-favored-nation principle, but took no immediate stand on what their ultimate attitude might be. It was agreed that the matter would be given further consideration at the Nineteenth Session.

Ministerial Meeting Arranged: The most important decision of the session was to convene next fall a meeting of officials in the trade policy field at the ministerial level. Over the past three years, the countries associated in the work of the General Agreement have been working on a program to attack three major problems within the field of governmental barriers to trade.

First, it is widely felt that tariffs remain an important obstacle to the expansion of trade. Second, the ministers will be expected to address themselves to ways of finding a coordinated approach to the problem of excessive tariff and non-tariff protection in agriculture. Preliminary work in this field indicates that both tariff and non-tariff barriers to agricultural trade have widely impaired benefits expected from the

Agreement. Third, the time has come for policy-level attention to the problem of lowering barriers encountered by less-developed countries in the expansion of their international trade. Since, to a large extent, these three major problems are inter-connected, the ministerial meeting offers an opportunity for action on a broad front.

Technical Assistance for Newly-Independent Countries: A start was made at this session in affording newly-independent countries assistance in the development of sound trade policies. The Contracting Parties agreed that upon request from a newly-independent state, the Executive Secretary should take appropriate action to furnish qualified technicians or technical advice. This could mean undertaking to train officials and offering them the benefit of the Secretariat's experience in trade policy problems. Or, it could mean sending a mission to study a country's trade problems and submitting to it a comprehensive report with recommendations.

Action on Import Restrictions: Reports were made to the Contracting Parties on consultations which the United States initiated with Italy and France on their remaining import restrictions. The United States was able to express satisfaction with new liberalization steps to be taken shortly by Italy and hoped that additional action to eliminate quantitative import restrictions would be announced in the near future. In discussing the consultation with France, the United States observed that while it found encouragement in the relaxation of French import restrictions over the past six months, there was still much to be done in liberalizing imports of agricultural commodities.

Admission of Sierra Leone to the GATT: With the admission of Sierra Leone, the number of full Contracting Parties was raised to 39.

Discussion of External Tariff of EEC: There was considerable debate on the trade difficulties which some contracting parties, particularly the less-developed countries, believe will be created by the common external tariff of the European Economic Community and the trade advantage resulting from the association of the overseas territories with the EEC.

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International (Contd.):

SECOND PHASE OF CONFERENCE ON TARIFF NEGOTIATIONS:

In the second phase of tariff negotiations under the General Agreement on Tariffs and Trade, which began on May 29, 1961, the United States expects to negotiate for the reciprocal exchange of tariff concessions with the Commission of the European Economic Community (EEC) on behalf of the Member States (Belgium, France, Germany, Italy, Luxembourg, and the Netherlands) and with other countries which are contracting parties to the GATT or which are expected to negotiate for accession to the General Agreement.

During the first phase of the conference, which began on September 1, 1960, the United States, along with other GATT contracting parties, has been negotiating with the EEC Commission concerning the establishment of a new schedule of tariff concessions for the EEC as a whole to replace the present individual schedules of the member states. The United States has also been negotiating, under provisions of Article XXVIII of the GATT, with 15 other contracting parties concerning their modification or withdrawal of individual concessions in existing GATT schedules.

In accordance with the plan to increase participation by non-governmental representatives in the United States Delegation to the 1961 GATT tariff negotiations conference at Geneva, the Secretary of State has named 12 public advisers to serve as members of the delegation on a rotating basis in the second phase of the conference. This plan was developed by the United States cabinet-level Trade Policy Committee, which is chaired by the Secretary of Commerce.

JOINT UNITED STATES-JAPAN COMMITTEE ON TRADE AND ECONOMIC AFFAIRS FORMED

With an exchange of notes, Japan and the United States agreed to establish a Joint United States-Japan Committee on Trade and Economic Affairs. The Committee will consist: for the United States, Secretaries of State, the Treasury, the Interior, Agriculture, Commerce, and Labor; for Japan, Ministers for Foreign Affairs, Finance, Agriculture and Forestry, International Trade and Industry, and Labor, and the Director General of the Economic Planning Agency; together with such other officials of Cabinet rank as either

Government may designate from time to time, as the need arises.

Among the Committee's functions shall be, in particular, to exchange information and views on matters which might adversely affect the continued expansion of mutually profitable trade on questions relating to the economic assistance programs of the two countries which require joint consideration; to report to the respective Governments on such discussions in order that consideration may be given to measures deemed appropriate and necessary to eliminate conflict in the international economic policies of the two countries, to provide for a fuller measure of economic collaboration, and to encourage the flow of trade. (U. S. Department of State news release of June 22, 1961.)

WHALING

CERTAIN NATIONS MEET TO DISCUSS DIVISION OF ANTARCTIC WHALE CATCH INTO NATIONAL QUOTAS:

Representatives of Japan, the Netherlands, Norway, and the United Kingdom met in Vancouver, B. C., Canada, April 19 to 21, 1961, to discuss a division of the Antarctic whale catch into national quotas. G. R. Clark of Ottawa, Chairman of the International Whaling Commission, headed the meeting. While Canada is not engaged in Antarctic whaling, it does have an interest in international cooperation in conservation measures for marine resources.

The U. S. S. R. is also a major whaling country and operates like the other four countries in the Antarctic. It shares the views of the other countries regarding the need for an allocation system and agreement had previously been reached on an allotment of the Antarctic catch for the Soviet Union. The U. S. S. R. was invited to the Vancouver conference but was unable to send a representative.

The four countries represented at the conference met to consider an allocation scheme between themselves. Progress was made and agreement was reached on the general framework within which an allocation system could be worked out. The details, including a number of practical problems, will be further considered between the Governments concerned and it was proposed to hold another meeting later in the year.

The meeting followed the pattern of a similar one held in England earlier in the

International (Contd.):

year where the parties could not agree on a division of the whales caught in the Antarctic.

Representatives of the Governments of Japan, Norway, the Netherlands, and the United Kingdom met again in London early in June to resume discussions on a division of the Antarctic pelagic whale catch into national quotas.

The Government of the U. S. S. R. was unable to accept an invitation to send an observer. A proposal has now been formulated which will be referred to the respective governments for urgent consideration. No further meeting is contemplated.

PRICES FOR 1960/61 ANTARCTIC PRODUCTION TREND HIGHER:

As of late March or early April 1961, about 242,500 short tons of 1960/61 Antarctic whale oil production had been sold by the United Kingdom, the Netherlands, Japan, and Norway.

The bulk of the oil was sold to a large British firm, with the remainder going to several Norwegian hardening plants. The reported price was £10 10s. per metric ton (US\$186.70 per short ton), an increase of £1 a metric ton (\$2.54 per short ton) over the price reported a year ago.

According to estimates, these sales represented about 55 percent of total 1960/61 production. The Antarctic pelagic expeditions have accounted for about 85 percent of the whale oil produced in the last two seasons.

The entire 1960/61 Norwegian production of 11,574 short tons of sperm oil reportedly has been sold. (Foreign Crops and Markets, U. S. Department of Agriculture, April 10, 1961.)

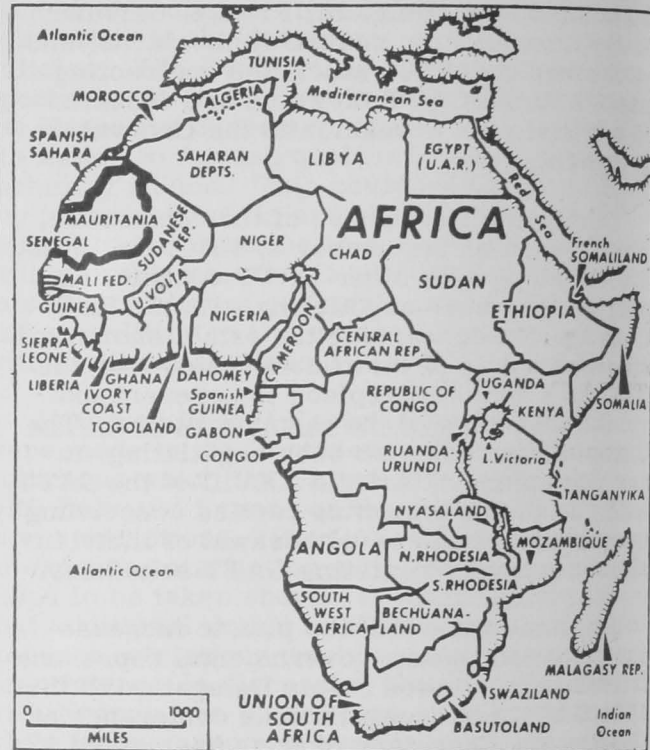


Angola

FISHING INDUSTRY DEPRESSED IN 1960:

Despite increased production, the Angolan fishing industry was in the depths of a depression in 1960.

A number of steps were taken in 1960 to ease the situation, but the question remained whether the assistance would be helpful. The main step taken during the year was the formation in August 1960 of the Institute of Fishing Industries of Angola (Instituto das Industrias de Pesca de Angola). The Institute is to conduct scientific studies of the life cycles of fish, oversee the reorganization of the industry into a limited number of cooperatives (about ten), and assist in the marketing of Angolan fish products. A study made in 1959 estimated that the cost of modernizing plants, closing down some factories, and organizing the industry into cooperatives would cost US\$6,817,000. The Institute also took over the operation of the Fund to Aid the Fishing Industry.



A map of present-day Africa.

Angola also joined the International Association of Fish Meal Manufacturers which is attempting to encourage the increased world consumption of fish meal and to help stabilize the world market price of fish meal. One objective of the Association was to gain the cooperation of Peruvian fish meal producers to aid in stabilizing the market. The prices dropped so low in mid-1960 that Angola started to grant subsidies to fish meal exporters as of July 1. The subsidies were US\$15 per ton for machine-dried meal and US\$10 per ton for sun-dried meal. The market price had risen sufficiently so that the subsidies were withdrawn on December 31, 1960.

Other stopgap measures were taken during the year. The fishing industry was not required to pay the sales tax on gas and oil, and the collection of all other taxes on the industry was suspended. Loans were made to the fish guilds at Mocimedes and Sa da Bandeira; and a credit was opened for US\$1,048,000 to the Fund to Aid the Fishing Industry.

These actions failed to resolve the immediate difficulties and to get at the heart of the long-range problems; and as a result the industry's position became increasingly difficult. The economies of the main fishing centers were at a standstill. The only realistic solution of this is the complete reorganization of the industry to concentrate on producing more canned and frozen fish.

Angola (Contd.):

Product	1960		1959	
	Quantity	Value	Quantity	Value
	Metric Tons	US\$ 1,000	Metric Tons	US\$ 1,000
Fish meal	45,085	3,754	51,228	7,188
Dried fish	13,165	2,561	13,965	2,653
Canned fish	1,123	621	1,342	745

Exports of fish meal in 1960 amounted to 45,085 metric tons (valued at US\$3,754,000) as compared with 51,228 tons in 1959 valued at \$7,188,000. Average prices per ton dropped from about \$140 in 1959 to about \$83 in 1960. Other exports of fishery products in 1960 and 1959 included small quantities of canned fish and fair quantities of dried fish. (United States Consulate, Luanda, April 21, 1961.)



Australia

HIGHER TARIFF RATES FOR CANNED TUNA IMPORTS RECOMMENDED:

At a public hearing on tariff rates for canned fish held in Melbourne on May 16, 1961, by the Australian Tax Commission, Australian tuna industry members strongly recommended that a higher tariff rate be placed on imports of canned tuna. Industry members claimed that tuna is found in abundance in the waters off Australia; that the Australian tuna industry is rather small but this was unavoidable due to the constant threat of cheap imports hanging over the industry; and that the domestic industry should be protected from cheap imports of canned tuna from Peru and Japan, which have been increasing the past few months.

The tuna industry asked that an ad valorem duty of 50 percent or a duty of one shilling six pence (about 16 U. S. cents) per pound (net weight) of canned tuna, whichever is higher, be placed on imports. (Suisan Tsushin, June 12, 1961.)

* * * * *

FINFISH LANDINGS, FISCAL YEAR 1959/60:

Australia's 1959/60 (July 1959-June 1960) finfish catch of 78.1 million pounds increased nearly 3.7 million pounds from the previous year. Mullet was the leading species by weight, and comprised almost 16 percent of the total finfish landings. The bulk of the mullet catch consisted of sea mullet but in-

cluded several other species commonly known to Australia's fishing industry as mullet.

Shark landings (mainly school and gummy) ranked second and made up about 11 percent of the national finfish catch. The 1959/60 Australian salmon (*Arripis trutta*) landings of 7.6 million pounds dropped 11 percent from the previous year and were displaced from second place by shark landings which increased by 11 percent during the same period. The greater part of the season's Australian salmon catch was from fishing grounds in Western Australia, New South Wales, and Victoria. Australian salmon accounted for almost 10 percent of the finfish catch.

Principal Species	1959/60	1958/59
	. . . (1,000 Lbs.) . . .	
Mullet	12,336	14,061
Shark	8,457	7,375
Australian salmon	7,601	8,544
Barracouta	5,871	4,301
Tuna:		
Southern bluefin	3,164	} 5,494
Northern bluefin	3,931	
Yellowfin	1	
Other fish	36,778	34,641
Total	78,139	74,416

The tuna catch of 7 million pounds was up 1.6 million pounds from the previous year and comprised over 9 percent of the total finfish catch. Landings of the two varieties fished in South Australia and New South Wales--southern bluefin (*Thunnus thynnus maccoyi*) and the northern bluefin (*Kishinoëlla tonogol*)--were nearly equal.

The 1959/60 finfish catch was supplemented by shellfish landings of 36.8 million pounds, bringing the total Australian fish and shellfish catch for the year to 114.9 million pounds. The spiny lobster harvest of 28 million pounds accounted for 76 percent of the year's total shellfish landings. (Australian Fisheries Newsletter, March 1961.)



Belgium

FISH MEAL PRICES, MAY 1961:

Belgium fish-meal prices early in May 1961 were up sharply from a month earlier for both imported meal and domestic meal. Imported Meal: Peru, 65 percent protein, US\$120 a metric ton or about \$108.86 a short

Belgium (Contd.):

ton, c.&f. Antwerp (80-90 percent digestible). Domestic Whole Meal (fish solubles added): 62 percent protein minimum, \$135 a metric ton or about \$122.47 a short ton f.o.b. plant (93-94 percent digestible).

A special duty on imported fish meal of \$40 a metric ton or \$36.29 a short ton became effective on March 18, 1961. The effect of this duty has been to reduce fish meal imports drastically. However, it is believed that the Belgium fish meal importers as of May had large stocks of fish meal imported in the months preceding the decree. The importers are anticipating a change in the Government's attitude towards fish meal imports, the United States Consulate in Antwerp reported on May 15, 1961.

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FISH MEAL PRICES, JUNE 1961:

Belgium price quotations for fish meal of Peruvian origin as of early June 1961 showed a further increase as compared with the preceding month. A more appreciable rise occurred in the price of the Belgian fish meal but, as a result of the special import duty of \$40.00 per metric ton (\$36.29 a short ton) which has been levied since March 18, 1961, on foreign fish meal, the price of the local product was still lower than the Peruvian fish meal. Prices early in June this year were: Imported Meal: Peru, 65 percent protein, US\$123.50 a metric ton or about \$112.04 a short ton, c.&f. Antwerp (80-90 percent digestible). Domestic Whole Meal (fish solubles added): 62 percent protein minimum, \$150.00-\$160.00 a metric ton or about \$136.08-\$145.15 a short ton f.o.b. plant (93-94 percent digestible).

Due to the relatively high import duty, Belgian imports of fish meal, which rose sharply during 1960, have now declined to an extremely low level. Belgium importers of fish meal and manufacturers of feedstuffs prefer to adopt an expectant attitude in the hope that the Belgian Government will revise the decree on the special import duty. It is rumored that the Government contemplates reducing the import duty on fish meal from the present \$40.00 per metric ton to \$20.00 per metric ton (\$18.14 a short ton), according to the United States Consulate in Antwerp, June 14, 1961.

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CONSUMPTION OF FISHERY PRODUCTS, 1960:

Belgium's apparent total consumption of fish and shellfish in 1960 remained about the same as during 1959. The principal demand was as usual for fresh groundfish which accounted for about 40 percent of total consumption of fishery products. There was an appreciable increase in the consumption of canned shellfish, but the total demand for canned fishery products remained relatively low because of the population's preference for fresh

Belgian Consumption of Fish and Shellfish, 1960				
Species	Fresh	Prepared	Canned	Total
 (Metric Tons)			
Marine Finfish:				
Herring	1/9, 808.6	10, 804.4	383.5	20, 996.5
Sprat	1/1, 347.4	-	-	1, 347.4
Mackerel	1/3, 019.7	128.5	-	3, 148.2
Pilchards	-	-	2, 211.1	2, 211.1
Sardines	-	-	4, 021.4	4, 021.4
Salmon	-	48.4	3, 863.0	3, 911.4
Other sea fish	2/45, 479.3	369.3	4, 826.3	50, 674.9
Total marine fish	59, 655.0	11, 350.6	15, 305.3	86, 310.9
Shellfish:				
Shrimp	2/891.9	-	629.8	1, 521.7
Lobster & crawfish	2/1, 239.1	-	712.9	1, 952.0
Mussels	2/22, 094.2	-	-	22, 094.2
Oysters	2/1, 597.2	-	-	1, 597.2
Other shellfish	2/876.1	-	1, 045.2	1, 921.3
Total shellfish	2/26, 698.5	-	2, 387.9	29, 086.4
Total marine fish and shellfish	86, 353.5	11, 350.6	17, 693.2	115, 397.3

1/Used mostly for canning.

2/Used mostly for fresh consumption.

Note: Actual consumption figures are not available in Belgium. These statistics have been compiled on the basis of total landings plus imports minus exports for "fresh" fish and shellfish, and imports minus exports for prepared and canned fishery products.

fish. The consumption of shrimp experienced a notable decrease, principally due to a substantial drop in total Belgian landings. (United States Consulate, Antwerp, May 10, 1961.)



Brazil

TUNA FISHING BY BRAZILIAN VESSELS:

The March 1961 issue of the Review (p. 46) contained a news item indicating that on December 20, 1960, the first tuna caught by a Brazilian vessel was landed at Santos. Actually, the article should have indicated this was the first large-scale venture. The Superintendencia do Desenvolvimento do Nordeste, an agency of the Brazilian Government, has written us that the information in the article cited above was not completely accurate.

Brazil (Contd.):

The Agency letter points out that Brazilian long-line tuna fishing, although on a small scale, has been conducted and developing around Recife for the past three years. Usually boats stay out from 6 to 10 days per trip.

Brazilian tuna fishermen sell their product locally. There are at present 8 boats (39 to 66 feet long) employed in tuna fishing, including 2 from Escola de Pesca Tamandare, a short distance south of Recife. One of the boats of this Government school has this year landed a trip of four 440-pound tuna among a total catch of almost 2 metric tons. Also, small sail boats fishing for tuna are traditional from the State of Rio Grande do Norte to Pernambuco.

The principal contribution to the Brazilian tuna market is the result, of course, of landings by two Japanese fishing companies operating from Recife and Santos, according to the letter.

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SAO PAULO FISHING INDUSTRY:

A total of 9 foreign and 225 domestic fishing vessels are registered at Santos, Sao Paulo. The vessels operate not only from the port of Santos, but also out of Ubatuba, Iguape, Registro, Itanhaem, Peruibe, and Sao Sebastiao.

A Japanese firm is the only foreign company in the State of Sao Paulo. The firm owns and operates a fleet of 8 trawlers and 1 purse-seiner. These vessels are modern and well equipped, and are equipped with motors of 300 to 500 hp. Their fishing trips, which range from northeast to south Brazil, last from 12 to 25 days. The Japanese firm's vessels fish mainly for tuna, "cod," "weakfish," and groupers.

The Japanese firm is one of the three Japanese fishing companies which were especially authorized by the Federal Government in 1957 to operate out of Brazilian ports with all-Japanese crews. As the Brazilian Fishing Code requires that two-thirds of the crews and all masters be Brazilian nationals, the Government authorization was valid for only two years. The authorization has since been renewed for another two years (ending during the second half of 1961).

Domestic vessels include: (1) A total of 57 "parelinha sol a sol"--small vessels of some 25 to 35 feet in length, made of hollowed logs, seating 8 to 10 fishermen, and using outboard motors of 25 to 80 hp. The parelinhas operate in pairs and drag a net between them. They fish mainly for sardines. They are used in coastal waters only. As their name indicates, they go out at dawn and return to port by sunset.

(2) A total of 39 purse-seiners, which are larger vessels, of 45 to 65 feet in length, usually with decks or half-decks, manned by a crew of 10 to 15 fishermen, and equipped with motors of 150 to 220 hp. The purse-seiners are generally out of port for 4 or 5 days.

(3) A total of 117 small trawlers, of about the same size as the purse-seiners; and 12 large trawlers, of 70 to 100 feet in length, manned by a crew of 15 to 20 fishermen, and equipped with motors of 250 to 450 hp.

The domestic vessels are 12 to 30 years old and their motors 8 to 10 years old.

The fish catch is broken down into three categories: Popular, special, first-class. Total fish production in Sao Paulo in 1960 was approximately 67 percent popular, 24 percent special, and 9 percent first-class. Popular species include sardines, dogfish, swordfish, catfish, mackerel, croakers, rays, and small groupers. Major special species are large dogfish, small shrimp, mullet, sea trout, and tuna. First-class species are large shrimp, prime shark cuts, spiny lobsters, "cod," "weakfish," dolphin (*Coryphaena hippurus*), large groupers, snooks, and jewfish.

The only fish processed on an industrial scale are sardines, which represent approximately 40 percent of the popular species of fish sold on the Sao Paulo consumer markets. Approximately 15 percent of the sardine catch is sold to 5 canning factories which sell their product on the Sao Paulo and Rio de Janeiro markets and in towns in the interior of the State, as well as in the States of Minas Gerais, Goias, Mato Grosso, and Parana.

Research work on the canning of "manjuba" (sand smelts), carried out jointly by the Sao Paulo and Federal Government at a pilot plant at Registro, is expected to lead to the industrialization of this species by the canning industry. So far, however, the project is still in its early stages and it may be some years before canning on a commercial scale is undertaken. (United States Consulate, Sao Paulo, May 12, 1961.)



British Guiana

WORLD BANK LOAN INCLUDES LENDING PROGRAM FOR FISHING INDUSTRY:

The World Bank, with the participation of two private banks, on June 23, 1961, made a loan equivalent to \$1.25 million to British Guiana Credit Corporation with additional funds for its lending program for farming, forestry, animal husbandry, and fishing.

The British Guiana Credit Corporation is the only institution providing development credit for agriculture and industry in British Guiana. It was established in 1954 along general lines recommended by the General Survey Mission organized by the World Bank in 1953. Its purpose is to promote economic development through credits for agriculture, industry, forestry, fisheries, and rural and urban housing. Its capital is provided by the Government in the form of advances with no fixed repayment date.

Funds from the World Bank loan will be used for agricultural development credits and will provide the foreign exchange needed for imports. Credits will be made for the purchase of machinery to further mechanized farming; breeding stock; fencing and other materials and equipment for dairying and poultry farming; equipment and materials for the construction and improvement of rice mills and of plants processing other agricul-

British Guiana (Contd.):

tural products, for the expansion of logging operations and sawmills, and of marine and river fisheries.

The Bank loan is for a term of 8 years and bears interest of $5\frac{3}{4}$ percent annually including the 1-percent commission which is allocated to the Bank's Special Reserve. Amortization will begin November 1, 1963. The loan is guaranteed by the United Kingdom.



Canada

GOVERNMENT PROPOSES TO INCREASE ASSISTANCE FOR CONSTRUCTION OF FISHING VESSELS:

On May 12, 1961, the Canadian Government announced a program to assist in the modernization of its fishing fleet. A proposed capital subsidy of 50 percent of approved costs will be paid for those costs incurred after May 12, 1961, towards the construction in Canada of steel fishing trawlers where the new trawler will replace one old vessel, which will then be withdrawn from service. In addition, the present special assistance of up to \$165 per gross ton payable toward the cost of construction in Canada of wooden fishing vessels over 45 feet in length will be increased to \$250 per gross ton.

In the case of all vessels currently under construction, the new assistance will apply only to work which may actually be carried out from May 12, 1961, and not to construction work performed before that date. The methods of determining approved costs will be prescribed by regulations yet to be announced. The regulations will include the proportion of non-Canadian content to be included in costs eligible for subsidies. (United States Embassy, Ottawa, May 17, 1961.)

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LARGE TRAWLERS ON ATLANTIC COAST STILL RESTRICTED TO FISHING BEYOND TWELVE MILES:

Until zones have been designated off Canada's Maritime provinces where large Canadian fishing trawlers can operate to within the three-mile limit, they are still required to stay beyond 12 miles, the Canadian Fisheries Minister announced on June 2, 1961.

The amendments to the Canadian Fisheries Act (Bill C-86) passed the House of Commons, received the third reading in the Senate, and Royal Assent on June 1, 1961.

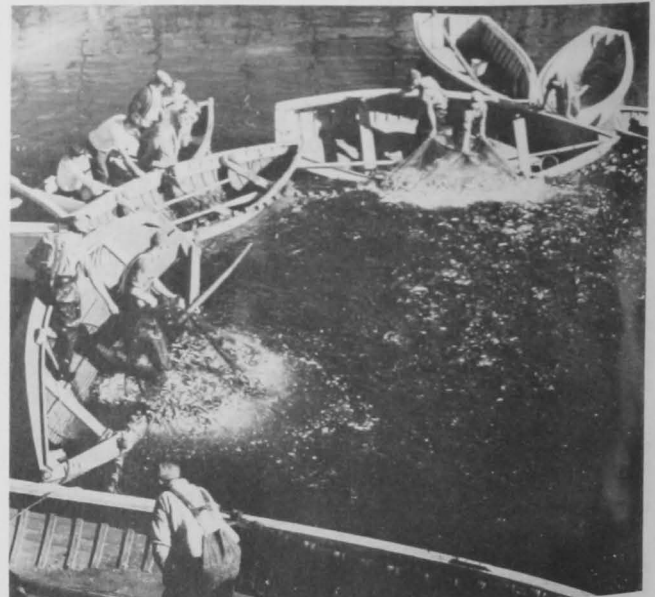
In clarifying the first major amendment to the Fisheries Act since 1932, the Minister pointed out that until the zones have been defined and published in the Canada Gazette, the large Canadian fishing vessels are still prohibited from fishing closer to shore than 12 miles. The Minister made it clear that the interests of local fishermen would be considered when certain zones are established allowing large trawlers to operate in areas between 3 and 12 miles from the coast of the Maritime or Atlantic Coast provinces.

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PRICES FOR BRITISH COLUMBIA HERRING OIL DELIVERED AT TORONTO, APRIL 1961:

The following prices for British Columbia herring oil delivered at Toronto, Canada, were furnished on June 2, 1961, by the United States Foreign Agricultural Service in Ottawa: In Canadian cents per pound: 1960: January 8.58; February 8.32; March 8.25; October, November, and December 8.93. 1961: January 9.07; February 9.57; March 9.67; and April 9.92.

The prices in April 1961 for British Columbia herring oil delivered at Toronto, Canada, amounted to 9.92 Canadian cents a



Working from boats in a circle, sardine fishermen of Black's Harbour, New Brunswick, Canada, take up the slack in the net to make it easier to brail out the fish.

Canada (Contd.):

found as compared with the price of 9.67 cents in March this year. Since the start of the 1960/61 British Columbia herring fishing season, prices have advanced about 11.1 percent from the 8.93 cents a pound for sales made in October-December 1960 and were up close to 20.2 percent from the March 1960 price of 8.25 cents a pound. (United States Embassy, Ottawa, June 2, 1961.)

NEW BRUNSWICK FISH MEAL
PRICES, JUNE 1961:

Fish-meal prices (60-percent protein) quoted by New Brunswick producers early in June 1961 averaged about C\$114 a short ton (\$1.90 a protein unit) for both exports and domestic sales. Due to short supply and good demand, fish-meal prices have advanced steadily since May and as of early June were up about \$12.00 a ton from the \$102 a ton (\$1.70 a protein unit) quoted by producers in mid-May this year. (United States Consulate, St. John, June 20, 1961.)

NEW OCEAN RESEARCH VESSEL
FOR NORTH PACIFIC:

Canada has awarded a contract for the construction of an ocean-going research vessel to operate in North Pacific waters to a British Columbia shipyard. To be named the G. B. Reed, after a former chairman of the Fisheries Research Board of Canada, the 177-foot vessel will be the newest addition to the fleet of the Board, the scientific arm of the Canadian Department of Fisheries.

The new vessel will cost C\$1,786,817, and will be a sistership to the Board's deep-sea research vessel A. T. Cameron which was launched in May 1958, and operates in the Northwest Atlantic.

The G. B. Reed will be, in essence, a floating scientific laboratory and her facilities will incorporate the latest developments in fisheries research vessel design. She will have ample laboratory space and the most up-to-date equipment to enable scientists sailing on her to carry out all aspects of scientific research related to Canada's Pacific fish stocks. Such research programs are essential not only for the conservation

and development of these fish stocks but also to meet Canada's commitments in high-seas investigation under the International North Pacific Fisheries Commission.

The vessel, the hull of which will be of welded steel construction, will be propelled by a single modern marine Diesel engine capable of a cruising speed of 12 knots. She will be able to cruise for 8,500 miles without refueling, and will carry a complement of 36, including scientists.

The G. B. Reed will be equipped for fisheries research purposes employing bottom and mid-water trawls, gill nets, long lines, and other specialized fishing gear as well as winches and rigging for conventional oceanographic survey operations.

Refrigerated holds and dry storage will be provided and will enable the vessel to remain at sea for a period of six weeks. Navigational equipment will include radar and echosounders. (Facts on Fish, May 1961.)



Curacao

NETHERLANDS APPROVES
ESTABLISHMENT OF
JAPANESE FISHING BASE:

The Netherlands Government has announced through its Embassy in Tokyo that a Japanese fishing company's plans to use Curacao in the Caribbean Sea for an overseas fishing base will be approved. The possibility of the plans materializing was strengthened with the prospects of the Japanese Fishery Agency giving permission for the establishment of the base.

The Netherlands Government is said to be welcoming the Japanese firm's plans that are in keeping with its policy of fostering new industries. The Netherlands side has concluded with the company an agreement to lease about 6 acres of land and begin the establishment of a large fishing base. The Japanese firm plans to store fish landed by Japanese tuna vessels fishing in the Atlantic and prepare the fish for export to the United States and Europe. At the same time, it will export for other producers and also buy tuna. By careful handling and storing of fresh fish, the firm hopes to prevent claim problems on exported tuna.

Some US\$555,556 will be invested in the base, and to establish a cold-storage facility

Curacao (Contd.):

of 1,500 tons and a fish ham-fish sausage manufacturing plant of a small size to utilize the fish that are not suitable for export.

Yearly landings of some 10,000 metric tons and one-twentieth of the total tuna exports, including canned goods, will be the firm's production goal. Cristobal, Canal Zone, where Japanese tuna vessels dock at present, is too far from the fishing grounds, and while Curacao has 15-16 foreign vessels constantly at anchor, only a few ships are at Cristobal, making it difficult to load the fish for shipment when they are landed. Even on this score, Curacao has a promising future as an overseas fishing base with free access to carriers. (Fisheries Economic News, June 7, 1961.)



Czechoslovakia

JAPANESE FIRMS DELIVER FROZEN TUNA:

Two Japanese fishing companies planned to deliver a total of 1,050 metric tons of frozen tuna to Czechoslovakia. The announcement that Japan had concluded a frozen tuna trade agreement with Czechoslovakia was made in April 1961. One Japanese firm expected to deliver 600 metric tons of frozen tuna to Czechoslovakia in late June 1961. This shipment was to be transshipped from Monrovia, Liberia, by carrier vessel and delivered to Hamburg, Germany, and then shipped by rail to Prague, Czechoslovakia. The other Japanese firm expected to ship 450 metric tons of frozen tuna to Czechoslovakia in late July. This shipment was to be hauled directly to Hamburg by fishing vessels. A Japanese trading corporation located in Hamburg was to handle both transactions.

Negotiations for future deliveries of frozen tuna are reported to be under way, although Czechoslovakia will not commit herself to any future purchase until she has examined the above-mentioned shipments. Should they prove satisfactory, Czechoslovakia has indicated that she may stop importing frozen tuna from Norway (present imports from Norway are given as 4,000 to 5,000 tons) and shall purchase tuna from Japan instead. According to an official of one of the Japanese firms, his firm has ac-

cepted malt in exchange for the frozen tuna. (Suisan Keizai Shimbun, May 31, 1961.)



Denmark

FISH FILLETS AND BLOCKS AND FISHERY BYPRODUCTS EXPORTS, MARCH 1961:

Denmark's exports of fresh and frozen fish fillets and blocks during March 1961 amounted to 7.7 million pounds, an increase of 2.5 million pounds as compared with March 1960 exports. Of this total, 2.7 million pounds (principally frozen cod fillets and blocks) were shipped to the United States.

In the first quarter of 1961, Denmark shipped slightly over 4.4 million pounds of frozen fish fillets and blocks (almost entirely cod and related species) to the United States.

Total exports of fresh and frozen fillets and blocks from Denmark in the first 3 months of 1961 totaled 19.1 million pounds, or 8 million pounds more than the comparable period in 1960. Exports of fillets and blocks of cod and related species during the first three months of 1961 were up 50 percent, and flounder and sole increased 55 percent as compared to the same period in 1960. Nearly 3 million pounds of herring fillets were exported in the first three months of 1961, compared with only a small quantity in the first three months of 1960.

Denmark's Exports of Fresh and Frozen Fish Fillets and Blocks, and Fishery Byproducts, January-March 1961

Product	March	March	January-March	
	1961	1960	1961	1960
 (1,000 Lbs.)			
Fillets and blocks:				
Cod and related species	4,956	3,856	11,312	7,556
Flounder and sole	1,739	1,265	4,772	3,082
Herring	912	-	2,774	-
Other	102	1/ 98	238	1/381
Total	7,709	5,219	19,096	11,019
 (Short Tons)			
Byproducts:				
Fish meal, fish solubles, and similar products . .	4,741	2,096	9,923	6,768

¹/Includes herring fillets.
Note: Shipments from the Faroe Islands and Greenland direct to foreign countries not included.

In March 1961, Denmark's exports of 4,741 tons of fish meal, fish solubles, and similar products were more than double the quantity shipped in March 1960. Exports of fishery byproducts for the first quarter of 1961 were 47 percent more than in the comparable period of 1960.

* * * * *

FISH MEAL AND SOLUBLES PRICES, MAY 1-6, 1961:

During the week ending May 6, 1961, export prices for Danish herring meal were quoted at 850-960 kroner a metric ton (US\$111.81-126.28 a short ton) f.o.b. Esbjerg. Demand for Danish herring meal has been in-

Denmark (Contd.):

creasing, due mainly to the failure of the Norwegian winter herring fishery.

Light sales of fish solubles averaged only 490 kroner a metric ton (\$64.46 a short ton). This price represents a substantial decrease from an early April price of about \$94.06 a short ton. (United States Embassy, Copenhagen, May 23, 1961.)

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FISH MEAL PLANTS WIDELY DISTRIBUTED:

A Danish manufacturer in Esbjerg has delivered 24 complete fish meal plants, Dansk Fiskeritidende (a fishery trade periodical) reported on May 19, 1961. Eleven are in operation in Europe, 5 in Africa, 2 in Turkey, 3 in the Far East, 1 in Mexico, and 2 in South America. The most recent orders are for 2 plants for the Philippines and 1 for Nigeria. The cost per plant is about 250,000 Danish kroner (US\$36,100).

A Copenhagen manufacturer has made five fish meal plants for Japan. They are to be installed in factoryships and will utilize the catch of 25 small trawlers.



East Africa

STUDY OF ROCK COD SPECIES:

The 35 species of rock cod in the Indian Ocean off Kenya and Tanganyika are being studied by the senior scientific officer of the East African Marine Fisheries Research Organization at Zanzibar.

The purpose of the study is to identify the rock cods, *Serranidae*. Along the East African coast some 35 varieties are caught and sold in the local markets. The fish average 10 to 40 pounds each.

The job is to identify the commercially important species, and because so far no one knows just what they are, he catches them from the Research Organization's vessel *Manihine*, and then in the laboratory examines them to see what they have been feeding on and their breeding condition.

The study in March 1961 was focused on the fishing potential of the North Kenya Banks, which are about 40 miles long and 30 miles wide, with a steep valley separating the southwest part, and probably composed of alluvial soil swept from the Tana River centuries ago. They may prove to be a very valuable and quite new source of fish food for Africa. (The African Shipping News and Fishing Industry Review, April 1961.)



Ecuador

BAIT FISHING BY FOREIGN VESSELS PROHIBITED:

A law prohibiting foreign vessels from bait fishing off the coast of Ecuador was signed by the President of Ecuador in May 1961 and will enter into effect when published in the Registro Oficial. Bait fishing is prohibited between Point Santa Elena, Guayas Province, and Cape Pasado, Manabi Province.

An official of the Department of Fisheries, Ministry of Development, has explained that no distance into the ocean was mentioned in the law since bait fishing is done within "about three miles" of shore and, therefore, allegedly does not involve the problem of territorial waters.



France

MULTIPURPOSE SIXTY-FOOT FISHING VESSEL:

The sardine purse-seine fishery of Lorient, France, has found increasing difficulty in obtaining a full crew for its vessels during the summer season when a 60-foot vessel normally carries a crew of 13-14 men. When the season is over, the boats fit out for trawling or shellfish dredging with a crew of 6-7.

In an effort to overcome this problem, one French company has introduced a new design, which utilizes a "power block" to haul the sardine nets, and so cut crew requirements by half. Two of these new vessels, which are 52 ft. 9 in. in length, were to go into service in May 1961. These represent the first of six.

The new vessels are built of steel instead of the traditional wood, have a crew of 7 men,

Ghana (Contd.):

The first two vessels to be completed are expected to commence fishing early in November 1961.

The vessels are intended to form the nucleus of a state-owned fishing fleet. (The Fishing News, May 12, 1961.)



Guatemala

JOINT JAPANESE-Guatemalan SHRIMP FISHING COMPANY PLANNED:

A large Japanese exporting firm (major tuna exporting company) hopes to establish a joint shrimp fishing company in Guatemala. The firm plans to send a fishing vessel to the Caribbean Sea off Guatemala in August or September 1961 to conduct exploratory fishing for shrimp for two months. Should this operation be successful, the firm will then proceed with its plans to establish a joint firm, contributing 39 percent of the capital outlay, and construct an ice plant and a 300-ton capacity cold-storage plant.

According to available information, the Guatemalan fishermen employ small fishing boats with 2- to 3-men crews, and catch an average of 827 pounds of shrimp per vessel per day. The local fishing boats make about 15 trips a month and land about US\$2,500 worth of shrimp monthly. (Nippon Suisan Shimbun, May 29, 1961.)

Editor's Note: One other Japanese trade paper states that the Japanese firm will contribute 49 percent of the capital. On February 18, a news release in The Suisan Tsushin reported two Japanese firms were planning to set up a Japanese-Guatemalan firm to fish for shrimp off Central America. The report had indicated the company was to start operating in April-May 1961, but no more has been heard about this venture.



Iceland

NEW TWELVE-MILE FISHING LIMITS REGULATIONS ISSUED:

Government on March 11, 1961, issued regulations relating to fishing (principally trawling) in waters off Iceland. The regula-

tions are applicable both to foreign and Icelandic vessels.

The new regulations are complicated, but the basic points are:

(1) By drawing new base lines, the old fishery limits have been pushed seaward to include an area embracing 5,065 square kilometers of fishing grounds on which trawling is barred.

(2) No trawling operations are permitted by vessels of any nation within the new closed areas.

(3) Within the old 12-mile fishing limits zone around Iceland, Icelandic trawlers can continue the trawling operations they were permitted under previous trawling regulations, the most recent being those of August 29, 1958.

(4) The British obtained concessions to trawl in certain pockets within the old 12-mile Icelandic fishing limits. Under the new March 11, 1961, regulations, Icelandic trawlers are likewise permitted to trawl in those areas made available to British vessels. Like the British, the Icelanders can only trawl in these pockets during specified times of the year over the next three years.

Therefore, Icelandic trawlers have been given all concessions for trawling within the 12-mile zone during the next three years which the British trawlers obtained from the fishery settlement. Icelandic trawlers retained the rights they previously had for trawling at certain places and times within the old 12-mile zone, but like all other trawlers, they are barred from the new protected areas formed by pushing the base lines seaward.

The Icelandic trawlers will have a smaller area open to them after the three years are up than before the British settlement, providing the regulations remain the same. Even during the next three years they will be in a less favorable position than before because the new barred zones contain some of the best fishing areas off Iceland.

Vessels of all other nations--those particularly concerned being Belgian and West German--are also barred from fishing within the new 12-mile fishing limits.

The chief beneficiaries of the new regulations will be the smaller non-trawling Ice-

Iceland (Contd.):

Icelandic fishing vessels, as all trawling has been prohibited within the rich base areas off the southwest coast of Iceland. Only they will be allowed to fish those areas. (United States Embassy, Reykjavik, April 17, 1961.)

Note: Also see Commercial Fisheries Review, May 1961 p. 48.

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ICELAND'S FISH PRODUCTION, JANUARY-FEBRUARY 1961:

How Utilized	January-February	
	1961	1960
	.. (Metric Tons) ..	
Herring^{1/} for:		
Oil and meal	5,437	135
Freezing	4,860	125
Salting	2,383	78
Fresh on ice landed abroad	2,470	562
Other fish (cod, etc. 2/) for:		
Fresh on ice landed abroad	5,065	5,342
Freezing and filleting	3/18,818	33,133
Canning	3/30	-
Salting	6,699	10,282
Stockfish	4,597	7,251
Home consumption	1,211	1,487
Oil and meal	504	591
Total production	52,074	58,986

^{1/}Whole fish.
^{2/}Drawn fish.
^{3/}Also includes shrimp--14 tons for freezing, and 30 tons for canning in 1961.

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FISHERY TRENDS, MAY 1961:

Although the main fishing season officially ended May 11, 1961, a number of Icelandic trawlers recently sailed for fishing grounds off Greenland. The herring fishery continued sporadically, encouraged by higher fish meal and oil prices. New shrimp grounds were discovered off the northwest tip of Iceland.

Fishing was almost entirely for Western markets since no agreement has been reached on ocean perch sales to the Soviet Union. A reason for the departure of the trawlers to Greenland waters was to put them out of reach of impending strike action at home. A full assessment of the main fishing season has still to be made, but it was obviously less profitable than that of 1960 and left a number of localities, particularly the Westman Islands, in a worse position than last year.

Despite the large number of ocean perch to be caught off the coast of Newfoundland, the Freezing Plants Corporation stopped processing these fish in May and ordered the

trawlers to stop the ocean perch fishery until a 1961 sales contract was made with the Soviet Union. On May 11, the daily Morgunbladid (Conservative Party) stated that the price for frozen perch should rise to compensate for the decline in prices of fish meal.

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PRODUCTION OF PROCESSED FISHERY PRODUCTS, 1959-60:

Iceland's production of processed fishery products and byproducts in 1960 amounted to 236,600 metric tons (521.6 million pounds), valued at \$55.5 million. As compared with 1959, this represented a decrease of 9 percent on the basis of weight with a drop in value of \$10.8 million. The value of frozen and cured fishery products was lower than the previous year. The more pronounced decline in value was for fishery byproducts with a drop of nearly \$8 million from the previous year. The world market for fish meal and oil was depressed in 1960, and affected prices for Icelandic fishery byproducts. (See table on following page.)

Less fish was frozen in 1960 than the previous year. This was partly due to a shortage of fish which confronted the Icelandic trawler industry late in 1959, and which became gradually worse in 1960. Frozen fillet production was lower by 13 percent, and the amount of herring frozen was 40 percent less than in 1959. More fish waste, mainly used for animal feeding, was frozen in 1960 than the previous year.

Iceland's 1960 cured fish production declined 11 percent when compared with 1959 principally due to the lower output of salted herring. The drop in salted herring production was mainly due to the larger proportion of lean and inferior quality herring which was processed into meal and oil. Stockfish production in 1960 was up about 40 percent from the previous year with a value increase of \$1.7 million.

The 1960 Icelandic fish meal and oil production was 16 percent less than the previous year. Less meal was processed from herring, ocean perch, and fish fillet trimmings and waste than in 1959.

Fish on ice landed abroad (United Kingdom and West Germany) directly by Icelandic vessels in 1960 amounted to 27,800 metric tons valued at \$2.9 million. This was

Iceland (Contd.):

Icelandic Production of Processed Fishery Products and Byproducts, 1959-60						
Product	Quantity		Value			
	1960	1959	1960		1959	
	(1,000 Metric Tons)		Million Kronur	US\$1,000	Million Kronur	US\$1,000
Frozen						
Fillets	58.8	67.9	851.7	22,413	935.7	24,624
Fish waste	10.8	2.4	17.1	450	4.4	116
Herring	8.8	14.7	46.4	1,221	74.6	1,963
Fish roe	0.7	1.2	8.3	218	15.1	397
Shrimp	0.1	0.1	} 35.9	} 945	} 14.7	} 387
Lobster	0.3	0.1				
Other	0.1	0.3	0.1	3	3.7	97
Total Frozen	79.6	86.7	959.5	25,250	1,048.2	27,584
Cured						
Salt fish, wet	22.7	19.0	205.3	5,403	171.0	4,500
Salt fish, dried	5.5	7.3	97.2	2,558	108.1	2,845
Stockfish	9.4	6.6	213.8	5,626	149.6	3,937
Herring	25.7	33.8	199.3	5,245	283.6	7,463
Fish roe	0.4	4.6	3.1	82	35.2	926
Other	0.2	0.5	2.2	58	3.5	92
Total Cured	63.9	71.8	720.9	18,972	751.0	19,763
Canned						
Unclass. (includes shrimp) . . .	2/0.5	3/0.3	2/21.3	2/561	3/21.7	571
Byproducts						
Meal:						
Herring	19.5	22.1	75.5	1,987	141.7	3,729
Ocean perch	10.1	16.9	33.0	868	95.8	2,521
Wolffish	0.5	1/	1.6	42	-	-
Lobster	0.2	1/	0.1	3	-	-
Liver	0.4	1/	2.4	63	-	-
Other	22.9	25.9	79.7	2,097	168.5	4,434
Oil	31.0	36.7	169.3	4,455	251.7	6,624
Solubles (50% solids)	1.2	-	2.0	53	-	-
Total Byproducts	85.8	101.6	363.6	9,568	657.7	17,308
Miscellaneous						
Fish skins	0.1	1/	0.2	5	-	-
Whale products	6.7	1/	43.3	1,139	40.0	1,053
Total Miscellaneous	6.8	-	43.5	1,144	40.0	1,053
Grand Total	236.6	260.4	2,108.8	55,495	2,518.6	66,279
Fish landed abroad	27.8	13.8	108.8	2,863	61.5	1,618
Home consumption	17.0	1/	45.0	1,184	58.3	1,534

1/Not shown.

2/Mostly unclass., includes 60 tons canned shrimp valued at US\$135,600.

3/Canned shrimp data not shown separately.

Note: Values converted at rate of 38 kronur equals US\$1.00 in 1959 and 1960.

double the quantity landed abroad the previous year and the value was up \$1.2 million.



Italy

JAPANESE FROZEN TUNA IMPORTS WILL NOT BE TAXED UNTIL 1971:

The Italian Government, in response to questions submitted by the Japanese Frozen Food Exporters Association, announced that Italy will not tax imports of Japanese frozen tuna until 1971. The announcement did not clarify what the Italian Government intends to do after 1971. The Italian Government also stated that in the future it will cooperate with the Japanese Government on matters pertaining to the import of frozen tuna to Italy. This message was relayed to Ja-

pan through the Italian Embassy in Tokyo. (Shin Suisan Shimibun, May 22, 1961.)

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PRODUCTION OF MARINE FISH AND SHELLFISH, 1953-60:

Italy's landings of marine fish and shellfish in 1960 amounted to 188,100 metric tons (414.7 million pounds). This was only slightly below the 1959 landings, and held at about the same average as during the years 1953-59. The 1960 finfish catch accounted for 78 percent of the total landings for that year while shellfish (molluscs and crustaceans) accounted for the remainder. The sardine and mackerel harvest in 1960 comprised 40 percent of the total fish landings. Tuna and tunalike landings (not including those landed direct by foreign fishing craft or reefer ships) in 1960 amounted to 1,393 tons, substantially less than the 2,064 tons landed in 1959.

Italy (Contd.):

Italy's Landings of Marine Fishery Products, 1953-1960					
Year	Fish		Molluscs	Crustaceans	Grand Total ^{1/}
	Total	Sardines, Anchovies, & Mackerel			
	(1,000 Metric Tons)				
1960 ..	146.0	58.3	33.1	9.0	188.1
1959 ..	143.9	61.2	37.1	8.5	189.5
1958 ..	141.8	60.4	35.9	8.2	185.9
1957 ..	146.7	67.1	32.4	7.6	186.7
1956 ..	157.2	75.9	31.6	6.5	195.3
1955 ..	155.2	67.6	32.8	6.8	194.8
1954 ..	159.8	69.3	28.2	6.6	194.6
1953 ..	160.6	69.1	22.5	6.0	189.1

^{1/}Does not include sponge production; and quantities landed by Italian fishing craft in foreign ports and quantities landed by foreign fishing craft in Italian ports.

The 1960 total finfish landings of 146,000 tons did not change greatly since 1957, but were 10 percent less than the 1953 finfish catch. The mollusc catch in 1960 dropped 10 percent from the previous year but exceeded production for each of the years 1953 through 1957. (United States Embassy, Rome, June 1961.)



Japan

EXPORT TARGETS FOR FISHERY PRODUCTS FOR 1961:

Japanese export targets for fishery products during 1961 were approved at a meeting of the Agricultural-Fisheries Product Export Council held by the Ministry of International Trade and Industry (MITI). Approved programs are to be submitted to the Highest Export Council.

The value of 1961 export targets for fishery and aquatic products other than canned amounts to US\$78,340,000; for all types of canned products (including fish and shellfish) 140,930,000; and for whale oil \$21,865,000. Compared with 1960, the export target for fishery products other than canned is up 6,650,000, for all canned products it is up \$3,635,000, but for whale oil it is down 1,570,000.

In order to achieve the targets, the Government is requested by the Council to consider the (1) establishment of bases on the Atlantic coast for frozen tuna, (2) a publicity program in overseas markets for cultured pearls, (3) accelerate imports of scallops and kelp from the Soviet Union, and (4) order measures for agar-agar imports from Korea for export.

The 1961 export targets for fishery and aquatic products other than canned are: frozen tuna \$36,300,000, frozen broadbill swordfish \$5,250,000, cultured pearls \$27,270,000, agar-agar \$1,200,000, dried cuttlefish \$2,640,000, kelp \$840,000, scallops \$750,000, and salted and dried fish \$2,250,000. For canned fishery products the targets are: tuna \$26,732,000, salmon and trout \$54,145,000, crab meat \$11,821,000, sardines \$6,220,000, mackerel-pike \$4,803,000, and horse-mackerel \$3,608,000. For whale oil the target is \$21,865,000.

With regard to frozen tuna, the Council asks bases be established in the Atlantic; also provide financing to adjust demand and supply. For cultured pearls, the Council asks for a study of overseas markets, strengthening of publicity activities, together with an effort to obtain long-term financing for production. For salted dried products, the Council suggests that dried cuttlefish be imported from Korea, using similar procedures as for agar-agar, for the purpose of re-export. Government's appropriate guidance is wanted for full execution of the Japan-Taiwan Trading Agreement as to its trading plans. Consideration is requested for import of Russian scallops and kelp in view of domestic demand.

On canned products, the Council asks for counter-measures to import restriction and advancing import tariffs in the United States; Government subsidy for continued publicity to stimulate demand and exhibitions overseas; ask for a change in United States import quota on canned tuna-in-brine to a country-by-country quota based on previous import records; request increases in import quotas of canned sardines and mackerel-pike by Southeast Asiatic countries, but particularly, Burma, Indonesia, and Egypt; continue trading on the basis of letter of credit; and reduce the price of tinsplate for manufacturing cans to the international price level.

Also, in order to compete favorably in the international market on whale oil, an effort should be made to improve redemption ratio on vessels, lower interest, and to secure markets for steady and permanent exports. (Suisan Keizai Shimbun, June 2, 1961.)

FISHERY AND MARINE PRODUCTS EXPORTS TO UNITED STATES DECLINE IN 1960:

The bulk of Japanese exports of fishery and marine products to the United States in 1959-1960 was made up of fresh or frozen

Japan (Contd.):

Japan's Exports of Selected Fishery and Marine Products to the United States, 1959-60				
Item	1960		1959	
	Quantity	Value	Quantity	Value
	Metric Tons	US\$ 1,000	Metric Tons	US\$ 1,000
Tuna, fresh or frozen	64,924	18,977	65,482	19,479
Tuna, canned	9,651	9,473	9,905	10,493
Crab meat, canned	1,941	5,359	3,114	7,542
Other canned fish	17,737	14,035	29,549	23,839
Oils from fish and marine animals	1,891	2,124	1,661	1,911
Pearls, worked	1/	12,753	1/	11,759
1/Not available.				

tuna. But exports of that commodity decreased from 65,482 metric tons valued at US\$19.5 million in 1959 to 64,924 tons valued at US\$19.0 million in 1960. Exports of canned tuna were also off slightly. The greatest decline, however, was in the exports of other canned fish which dropped from 29,549 tons valued at US\$23.8 million in 1959 to 17,737 tons valued at US\$14.0 million in 1960 (see table). (United States Embassy, Tokyo, May 22, 1961.)

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JAPANESE FEEL TUNA FISHERY MAY EVENTUALLY BE REGULATED INTERNATIONALLY:

The feeling is spreading in Japan that there will come a time in the future when the tuna fishery will be regulated on an international basis, like the salmon, bottomfish, and whale fisheries. This feeling is supported by the fact that many more countries are now engaged in tuna fishing or are interested in engaging in tuna fishing, and the fact that the Inter-American Tropical Tuna Commission, which had been established to study the tuna resource in the Eastern Pacific, is now reported to be favoring the enactment of regulations to control the Eastern Pacific tuna fishery.

The Japanese National Federation of Tuna Fisheries Cooperative Associations is concerned over what appears to be a growing trend in the world to establish regulations to control the tuna fishery and hopes to have this matter fully explored by the National Tuna Research Council. The Federation hopes to have the Council analyze trends and developments in other countries, as well as conditions of the tuna resource throughout the world, for the purpose of clarifying Japan's position in regards to the establish-

ment of international agreements to control the tuna fishery. (Suisan Keizai Shimbun, June 16, 1961.)

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SUMMER ALBACORE TUNA FISHING OFF JAPAN:

Fishing conditions in this year's summer albacore tuna fishery off Japan in mid-May were reported promising as compared with the past three years. Landings of small albacore were becoming heavy as in 1956, a bumper catch year. However, the decline in the number of vessels fishing--about 30 percent less than last year--is expected to adversely affect the season's catch. At last year's peak, 280 vessels were fishing, and this year a little more than 200 vessels are expected to operate.

The fishing ground as of mid-May was located at 137°-144° E. longitude, 28°-30° N. latitude in the sea area south of the Kii Peninsula. Some 100 vessels were fishing the area. Fish weighing 13-15 pounds (considered to be extremely small) and medium 37-39 pound fish were mixed in the catches. Ex-vessel prices were down around \$276 per ton because of lack of enthusiasm on the part of the canners. Bait, which was scarce last year, is abundant this season. (Suisan Tsushin, May 15, 1961.)

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ALBACORE TUNA FISHERY REPORTED POOR:

Early in June albacore fishing off Japan was reported very poor. As of June 10, 1961, albacore landings at the two major Japanese ports of Yaizu and Shimizu totaled 8,086 short tons. This was about 60 percent of the production of 13,282 short tons for the same period last year.

The price of albacore gradually rose since the start of the season and on June 10 the price of albacore (28-pound size) was 128 to 131 yen per kilogram (US\$322 to \$330 a short ton), with practically all fish being used for canning. In mid-May, albacore sold for 110 yen a kilogram (\$277 a short ton). (Suisan Tsushin, June 12, 1961.)

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SKIPJACK TUNA FISHERY IN FULL SWING NEAR TOKYO:

On May 23 a total of 122 metric tons of skipjack arrived at the Tokyo Central Market.

Japan (Contd.):

This was about two times as much as on previous days. Besides skipjack, 38 tons of bluefin, 74 tons of yellowfin, and 80 tons of big-eyed arrived at the market.

The striped tuna schools that had been delayed from appearing by the cold-water mass which appeared just to the south of Kii Peninsula, suddenly began their northward movement and the spearhead of the run arrived at only 10 miles from the tip of Izu Peninsula. As of May 24, a good fishing ground was reported around 34° N. latitude, 139° E. longitude. Vessels from the port of Shimoda in one or two hours arrive in the fishing area, but the capacity of each vessel is only 5 to 10 tons of skipjack. The skipjack on the Tokyo market was caught two-thirds by seine and only one-third by poles. Skipjack is generally recognized as poled fish, but this year's seine catches contradict this assumption.

CATCH OF TUNA MOTHERSHIPS IN SOUTH PACIFIC:

The two Japanese tuna motherships presently fishing in the South Pacific are reported to have caught the following amounts of fish:

	No. 3 Tenyo Maru (as of June 6)	Nojima Maru (as of May 31)
	(Metric Tons)	
Yellowfin	793	294
Albacore	417	104
Big-eyed	-	56
Other tuna	105	-
Spearfish	206	82
Shark	68	26
Other species	10	11

No. 3 Tenyo Maru early in June was fishing in the area 10° S. latitude, 176° E. longitude; Nojima Maru was fishing in the area 11°31' S. latitude, 174°10' E. longitude. (Suisan Keizai Shimibun, June 8, 1961.)

TUNA CANNERS PROPOSE LIFTING OF LICENSING RESTRICTIONS ON MEDIUM-CLASS TUNA VESSELS:

The Japanese Canned Tuna Packers Association is instigating a movement to have the Japanese Fishery Agency remove the license restrictions on medium-class tuna fishing vessels (vessels between 40 and 100 gross tons). At present, only tuna vessels under 40 gross tons do not require fishing

licenses. The Association hopes that by having the restrictions on licenses removed more vessels will enter the tuna fishery, resulting in an increased supply of tuna. The canners claim that liberalization of regulations permitting larger tuna fishing vessels has brought about a situation where there are now fewer pole-and-line vessels in the 40- to 100-ton size category, thereby contributing to the present critical shortage of tuna in Japan.

The Fishery Agency opposes the proposal, as does the National Federation of Tuna Cooperatives Associations. Figures compiled by the Cooperative Association show that the pole-and-line tuna vessels have declined in numbers since the peak years of 1952 and 1953 and presently total 348 vessels. Of these, 140 vessels fall within the category of medium-type vessels (40 to 100 gross tons). The Association claims that an increase in numbers of fishing vessels in the medium-class will cause tuna prices to drop. For this reason, it opposes the proposal by the canners. (Suisan Keizai Shimibun, May 31, 1961.)

THREE FISHING COMPANIES ASK TO USE PURSE SEINES IN ATLANTIC TUNA FISHERY:

Three Japanese fishing companies (all affiliated with one large fishery firm) filed applications with the Fisheries Agency for permission to operate the American-type tuna purse seines in the Atlantic fishery.

The Japanese have been studying the success the United States fishing industry is having purse-seining tuna in the coastal waters of California and off Central and South America. The three companies intend to adopt the purse-seine fishing method for skipjack and other tuna fishing.

The plan presented calls for the construction of tuna purse-seine vessels of the 450-ton class for tuna fishing off the west coast of Africa and off the eastern coast of Central America. According to the three companies' estimates, some 300 tons of tuna may be expected to be caught during one trip of some 40 days. Since the fishing grounds are far, the catch will naturally be landed in Africa or Central and South America. Sales to the United States and European markets will be handled entirely by the large fishery firm with which the three companies are affiliated since they will be concerned only with fishing.

Japan (Contd.):

The Fisheries Agency has not indicated its attitude towards the venture. The undertaking is not without problems, according to well-informed sources, particularly (1) as to what extent success is assured of the American-type tuna purse-seining in the Atlantic and it is realized that it can't be successful if fish schools are scattered; (2) since new vessels are being constructed, the initial investment will be large and failure will mean a large loss. (Suisan Shimbun, May 30, 1961)

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FISHING COMPANY PLANS
TUNA BASE IN CARIBBEAN AREA:

A large Japanese overseas fishing base at Curacao, Lesser Antilles (island in Caribbean Sea north of Venezuela, which belongs to the Netherlands), appears to be well on its way to becoming a reality. On May 25, 1961, a large Japanese company received word from the Netherlands Government that it fully supported the company's proposal and hoped that the company would immediately proceed with its plans. The company was awaiting approval from the Japanese Fishery Agency to start this undertaking. Approval was expected to be granted about mid-June.

The port of Curacao is a one-industry oil-refining town. The Netherlands Government wants to bring in new industry and, for this reason, is openly welcoming the plan to establish a Japanese fishing base at Curacao.

The Japanese company will lease more than 215,000 square feet of land and invest about 200 million yen (US\$555,555) for the construction of a 1,500-ton capacity cold-storage plant, a small fish sausage plant, and other base facilities. The base will be used to handle tuna caught by Japanese fishing vessels. Catch will be sorted at Curacao for export to the United States and Europe. Tuna unsuitable for export shall be used for the production of fish sausages and fish hams. Present plans call for landing about 10,000 metric tons of tuna per year at Curacao and for this base to eventually produce about one-twentieth of all Japanese tuna (including canned tuna) for export.

At present Japanese fishing vessels are using the port of Cristobal, Panama, but this port is far from the tuna fishing grounds. Also, since few foreign vessels call at Cris-

tobal, it is not possible to ship out frozen tuna immediately from this port. In this respect, Curacao has no shipping difficulties since a number of foreign ships call at Curacao. (Suisan Keizei Shimbun, May 27, 1961.)

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REGULATIONS FOR EXPORTS OF
FROZEN ATLANTIC TUNA TO
EUROPE AND AFRICA:

The Japan Export Frozen Tuna Association in mid-May 1961 decided on the regulations on frozen Atlantic tuna for export to Europe and Africa in 1961 (July-August).

There is little difference from the previous year's regulations. For Europe and Africa, the production quota for each vessel is 2 fishing trips (up to 3 trips are possible for those that are less than 150 tons). For Italy, the top limit is 12,000 metric tons for the fixed-base quota added to a quantity equivalent to what is produced by one-half a trip per vessel. For a new market the quota will be outside of the two-trip limit if approved by the board of directors. (Suisan Tsushin, May 16, 1961.)

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EXPORTERS DISCUSS EXPORTS OF
FROZEN TUNA TO EUROPE:

The Japanese Frozen Tuna Exporters Association met on June 13, 1961, to discuss the amount of frozen tuna to be exported to Italy in the second quarter (July to September), frozen tuna exports to Czechoslovakia, and the matter of sending a delegation to Italy to negotiate changes in the present trade agreement.

On the question of exports to Italy, the Association set an export target of 3,000 metric tons of frozen tuna for July 1961. By agreement, Japan is to export 30,000 metric tons of frozen tuna to Italy in 1961 (April 1, 1961, to March 31, 1962) and the Association sets quarterly targets to meet that goal. The fishing companies and exporting firms had supplied figures as to the amount of fish they could supply for the second quarter, but the Association set an export target for July only, and not for the entire quarter due to poor fishing conditions. This matter of targets was to be explored further at the next meeting scheduled for June 20.

Concerning the question of frozen tuna exports to Czechoslovakia, the Association dis-

Japan (Contd.):

cussed a letter from Czechoslovakia that stated that Czechoslovakia would decide whether or not to import additional Japanese frozen tuna after first inspecting the initial shipments of frozen tuna from Japan, which were expected to be delivered sometime in late June; that, if the quality of the initial shipments was good, Czechoslovakia would then import from Japan 2,500 to 3,000 metric tons of frozen tuna which had previously been imported from Norway.

On the subject concerning sending a delegation to Italy to negotiate changes in the trade agreement which Japan now has with Italy, it was pointed out that Italy wants to revise the clause in the present agreement which states that Japan will not be responsible for claims once a transaction has been completed, although in practice Japan has been adopting corrective measures whenever claims were filed.

A Japanese delegation of four members was selected to leave for Italy sometime around mid-July to study the tuna situation in Italy. The visit of this delegation was requested by tuna buyers in Italy. One of the problems that this group will explore involves claims. (Suisan Keizei Shimbun, June 15, and Suisan Tsushin, June 20, 1961.)

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FROZEN TUNA EXPORTS TO YUGOSLAVIA:

Japanese frozen tuna exports to Yugoslavia are expected to total about 12,000 metric tons in 1961. In 1960, frozen tuna exports to that country amounted to 11,364 metric tons, or approximately 18 percent of the 40,000 metric tons of Atlantic Ocean tuna which was exported by Japan. The fish, mainly yellowfin, sold for approximately \$260 to \$270 a metric ton. These are c.i.f. prices and include five percent commission. In mid-June it was reported that there were two tuna buyers from Yugoslavia in Japan. (Suisan Keizai Shimbun, June 14, 1961.)

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OVERSUPPLY OF ATLANTIC TUNA THIS SUMMER NOT LIKELY:

The Japanese Export Frozen Tuna Packers Association and Frozen Food Exporters Association held a joint meeting on May 19,

1961, to discuss the marketing situation of frozen Atlantic tuna this summer. Ordinarily there is an oversupply of Atlantic Ocean tuna in July and this meeting was convened to discuss measures of meeting the problem.

The joint committee takes the view that there is not a great likelihood of an oversupply of tuna occurring this year. Japanese landings of tuna from the Atlantic Ocean fishery as of May were about half of what they were in 1960 for the same period. Due to the poor fishing conditions, some of the vessels normally engaged in the tuna fishery off West Africa switched to other fishing grounds.

The price of Atlantic tuna as of May was holding firm at about \$280 a metric ton. Should poor fishing continue, it is expected that tuna (species unidentified) will sell for \$300 a metric ton towards fall. (Shin Suisan Shimbun Sokuho, May 23, 1961.)

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TUNA SHORTAGE CREATING PROBLEM FOR CANNERS AND EXPORTERS:

Tuna canners and frozen tuna exporters in Japan continue to be plagued by the tuna shortage. Frozen tuna exporters presently cannot compete for the high-priced fish, and canners, in order to maintain their export quota which is annually allotted to each firm on the basis of production, must pack tuna even if it means operating in the red for a while. The high ex-vessel prices are proving a great hardship on the smaller canners in particular.

Fish sausage producers, on the other hand, are reported to be able to pay higher prices for tuna than tuna canners and still show a margin of profit. They are said to be paying as much as 130 yen a kilogram (US\$330 a short ton) for tuna, and the fact that they are paying this high price is making it most difficult for tuna canners, not to mention frozen tuna exporters, to compete for the raw supply. Some circles are requesting that measures be adopted to correct this situation. (Nippon Suisan Shimbun, June 7, 1961.)

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PROSPECTS FOR EXPORT OF FROZEN TUNA TO RUSSIA APPEAR DIM:

The president of a large Japanese company flew to Moscow in early March 1961 to consult with Soviet Government officials on

Japan (Contd.):

the possibility of exporting Japanese frozen tuna to the Soviet Union. He returned to Tokyo in early May and stated that talks had not reached a stage where sales could be made because there are problems connected with exporting frozen tuna to the Soviet Union inasmuch as the Soviet Government classifies frozen tuna as a nonessential item. He added that if Japan should agree to import items such as petroleum, lumber, and iron ore from the Soviet Union, it is possible that the Soviet Union would allow the importation of nonessential goods.

The food situation in the Soviet Union is reported to have improved considerably and marine products such as canned salmon and canned saury are said to be found in many of the Russian stores. The Soviet Government is also reported to be encouraging the consumption of marine products and is reported to be constructing tuna fishing vessels. But hope is still held for exporting Japanese frozen tuna to the Soviet Union sometime in the future. (Suisan Keizai Shim-bun, May 10, 1961.)

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ALBACORE TUNA SHORTAGE MAY FORCE CANNERS TO PACK MORE LIGHT-MEAT FOR EXPORT:

The 47 tuna-canning plants in Japan affiliated with the Canned Tuna Packers Association started to pack tuna in May 1961, but the plants are reported to be faced with a shortage of raw albacore tuna. The Association held a meeting on May 24 to discuss ways and means of meeting this problem, but did not arrive at any concrete plan. It has requested the Japanese Fishery Agency to study the problem.

In the latter part of May the f.o.b. prices of canned tuna for export were \$9.15 a case for whitemeat and \$6.80 a case for lightmeat. The ratio of canned whitemeat to canned lightmeat tuna for export purposes is not fixed, and in the past this ratio was about 2 to 1 in favor of lightmeat tuna, although emphasis was placed on packing whitemeat tuna since it brought a better price. Industry seems to hold the view that it may now have to switch to packing more lightmeat tuna due to the shortage of albacore. (Suisan Keizai Shim-bun, May 27, 1961.)

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TUNA CANNERS IN SHIZUOKA INDICATE OUTLOOK IS UNFAVORABLE:

The outlook for the tuna canning industry in the Shizuoka area is considered unfavorable because of a drop in the sales of canned tuna for export to the United States and a number of difficult problems on materials, labor, and selling policy. Albacore and skipjack tuna catches cannot be expected to increase much because of the decline in the number of fishing vessels fishing seasonally for tuna off Japan. Probably landings large enough to meet the requirements of the canners cannot be expected.

The packing industry in Shizuoka Prefecture has been growing with the packing of albacore, skipjack in summer, and oranges in winter. In recent years, however, the year's production schedule has been disrupted by the continued poor fishing for summer albacore. Statistics on landings in Yaizu, where more than half of the summer albacore is landed, show 8,500 tons landed in 1958, 5,500 tons in 1959, and 11,600 tons in 1960. The large landings of 15,000-20,000 tons in 1955 or thereabouts seem like unattainable goals.

The drop in landings is attributable to the seasonal and unpredictable nature of the summer albacore fishing resource. Also in recent years, vessels fishing seasonally for tuna have found it unprofitable and they have switched to year-round fisheries. This reduced the number of vessels fishing for albacore and was partly responsible for a further drop in catch. For this reason, ex-vessel prices rose from \$251 per metric ton in 1958 to \$301-\$326 per ton. The recognized fact that the profit made on exports of canned products covered or offset the losses on domestic sales is no longer true, since profits have shrunk to almost zero.

As of mid-May 1961 canned whitemeat tuna was exported at \$9.15 per case f.o.b. and, judging from market conditions, it would not be desirable to raise the price even though the ex-vessel price is high. It is considered absolutely essential for the canners to maintain the present price in order to retain the position of the Japanese products on the market. Consequently, the packer is compelled to continue production at the \$9.15 price and he can afford to pay only around \$276 per ton for his raw tuna. Many in the industry feel that buying raw tuna at a price high enough to make packing unprofitable is unavoidable. Under the circumstances, the industry is seriously studying how to reduce costs. Buying the raw fish needed for canning cooperatively is again being considered, a proposal which has been shelved for the past few years. The objective is to get adequate fish and prevent an increase in the ex-vessel price. The canners seem to be thinking about concluding a price agreement with the fishermen.

Obtaining adequate labor is also troubling canners. Up to a few years ago, they were able to get the desired number of workers, but recently, considerable difficulty has been experienced because the labor supply is dwindling. This is due to the fact that food processors, including packers around Yaizu and Shimizu, have increased in number and, at the same time, the packers are in need of more workers to fully utilize their expanded facilities. Also, a number of large industrial plants have sprung up which are siphoning off much of the labor supply.

The industry is making an effort to lure the workers back by modernizing its facilities and establishing a minimum wage system, but the industry finds it impossible to compete with the larger industries. The canners succeeded in obtaining new graduates from schools this spring, but the number was far short of what they needed. They were still plagued with lack of labor in mid-May as the peak in the canning season was approaching.

Usually, May is the peak of the season. Last year, 200-300 metric tons of summer albacore per day were landed at the Yaizu market beginning the latter part of April. This year, however, their vanguard had not yet been seen and the fishing season seemed to be late getting started. The packers who had been packing other minor products, after finishing with orange canning, were impatiently waiting for the beginning of the summer albacore fishing. (Suisan Keizai Shim-bun, May 12, 1961.)

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Japan (Contd.):

STOCKS OF CANNED TUNA IN BRINE:

The Japan Export Canned Tuna Fisheries Association announced late in May 1961 that the stocks of canned tuna in brine on hand in Japan as of March 31, 1961, amounted to 301,789 cases, of which 297,243 cases were white tuna and 4,546 cases lightmeat tuna. (Nippon Suisan Shimbun, May 26, 1961.)

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EXPORT PRICES OF CANNED TUNA IN BRINE RAISED:

The Japanese export price of canned tuna in brine produced from skipjack will be raised 50 cents a case, from \$6.80 to \$7.30 a case f.o.b. Japan. This new price was agreed on at a meeting held between packers and exporters on June 5, 1961. This increase applies to canned skipjack only. On June 6, canned tuna exporters submitted to the packers a proposal to increase the export price on canned yellowfin in brine by 80 cents a case.

Packers came out strongly for the increase due to a shortage of skipjack tuna, which has resulted in higher prices being paid for that species. However, very little skipjack has been canned since January of this year and it will be interesting to see if this price increase will stimulate the production of canned skipjack. Depending on production, this price may possibly be changed again in the future.

The Tuna Standing Committee of the Japanese Canned Food Exporters Association held a meeting on June 6, 1961, to discuss the next sale of canned tuna and raising the export price of canned lightmeat tuna. The Association drafted the following proposals for submission to the tuna packers for their approval:

1. Raise the export price (now about \$6.80 a case) of canned yellowfin tuna in brine by 80 cents a case. However, the sale of canned yellowfin at the next sale (200,000 cases) of canned lightmeat tuna for the period June to August would be limited to a maximum of 100,000 cases, with consideration being given to the sale of large-size cans of canned yellowfin.

2. In addition to 150,000 cases of canned whitemeat tuna, the Association will sell all

the canned lightmeat tuna (6,000 cases of skipjack and 22,000 cases of yellowfin) presently held in stock by the joint sales company. Also, canned skipjack will be sold as supplies become available.

Although the market in the United States for Japanese canned tuna in brine seemed to be fairly firm as of early June, prices for United States-packed canned tuna in oil have shown no tendency to rise. Therefore, Japanese trading firms are inclined not to raise the price of the Japanese pack by \$1.50 a case as asked by the canners.

Canned tuna exporters met again on June 12 to discuss ways of marketing canned skipjack and canned yellowfin under the new prices since both products are sold as lightmeat tuna and it is not possible to differentiate between them. Agreement was reached at this meeting to consider 7-ounce cans of lightmeat tuna as being made wholly from skipjack and 13-ounce and 4-pound cans of lightmeat tuna as being a mixture of yellowfin and skipjack. Definite prices for the different sizes of lightmeat tuna have not been made public as yet, but the exporters will include this information in the proposal which they will submit to the joint sales company. The proposed prices will affect only the 200,000 cases of canned lightmeat tuna in brine to be offered between the period June to August 1961. (Suisan Tsushin, June 6, 7, and 13, 1961, and Suisan Keizai Shimbun, June 8, 1961.)

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CANNED TUNA SUPPLY REPORTED LOW:

The shortage of tuna in Japan appears to be getting more serious. On May 8, 1961, four members of the Export Canned Tuna Packers Association called on the Japanese Fishery Agency to request that a part of the increase of 9,300 metric tons of tuna given to the tuna mothership companies be allotted for the production of canned tuna. Earlier the Japan Fish Sausage Association had approached the Fishery Agency and requested that 80 percent of the increase in the tuna mothership catch quota be allotted for the production of fish sausages. (Suisan Keizai Shimbun, May 10, 1961.)

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CANNED SARDINES NOT BEING OFFERED TO PHILIPPINES:

The National Marketing Corporation (NAMARCO) of the Philippine Government

Japan (Contd.):

planned to hold the second quarterly bid opening for canned sardines in mid-June 1961, but Japan will not be tendering any offers for three reasons: (1) Instability of the Japanese sardine fishery this year. Japan is not confident that a sufficient supply of sardines will be available. (2) The embossed label restriction which prevents Japan from going into production before a contract is agreed upon. (3) The belief that Japan will be able to sell canned sardines to other countries. This belief seems to be influenced by the unhappy experience Japan had with NAMARCO over claims.

On the other hand, some quarters in Japan are suggesting that Japan should perhaps tender offers at about the same price as the United States. In the past, Japan offered canned sardines at \$7.00 to \$8.00 a case; the United States \$10 to \$10.50 a case.

Rumors are spreading that NAMARCO may stop accepting further bids from the Union of South Africa. Also, the Philippine Central Bank is reported to be considering a proposal to reject license applications to import South African products. It appears that the African-Asian bloc of nations which strongly opposes the apartheid policy of the Union of South Africa is advocating the adoption of these measures.

The Philippine Islands is a leading importer of South African canned sardines. Statistics show that the Philippine Islands imported approximately 500,000 cases of canned sardines from South Africa in 1959, or roughly one-third of South Africa's total export of canned sardines. In 1960, the Philippine Islands is estimated to have imported a greater amount of canned sardines from South Africa on a percentage basis, since such countries as Ghana, Malaya, and Burma, which previously imported large amounts of South African canned sardines, began to boycott South African products in 1960. (Suisan Tsushin, June 15, 1961.)

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STANDARDS FOR MANY CANNED FISHERY PRODUCTS PLANNED:

The Japanese Ministry of Agriculture and Forestry on May 20 announced new Japanese agricultural standards for 21 canned aquatic products made of six species such as skip-

jack tuna, other tuna, horse-mackerel, sardine, mackerel-pike, and mackerel. The purpose for establishing the standards is to assure a uniform quality for exports. The date when the standards go into effect is expected to be after August 1961. The Ministry also plans to establish standards for canned orange, salmon, and trout, and crab meat in the near future. Standards for three canned whale meat products were established not long ago.

The standards for canned aquatic products are similar to those issued for canned meat products. Standards provide that (a) labeling which misrepresents the contents is prohibited; (b) the label should clearly state the species, the type and size of the contents, including the seasonings used; (c) the label should clearly state the name of the product, weight of the contents and over-all weight, and the percentage of each major ingredient used, and should contain the standards shield.

The standards for aquatic products differ from those for meat products. For aquatic products: (1) names of the kind of product and brand are not required to be shown together but should be clearly shown; (2) no designation need be made of the weight of solid contents of sardines in oil and various products canned in water, but solid contents must be more than 80 percent of the total weight of the contents; (3) in case of tuna in oil, it should be identified as to whether it is white or light meat.

The 21 canned marine products which are to be covered by standards are: tuna in oil, skipjack in oil, seasoned tuna in oil, seasoned skipjack in oil, tuna in vegetables, skipjack in vegetables, Pacific mackerel natural, Pacific mackerel seasoned, Pacific mackerel in soybean paste, sardines in oil, sardines natural, sardines seasoned, sardines broiled, sardines in tomato sauce, saury natural, saury seasoned, saury broiled, saury in tomato sauce, jack mackerel natural, jack mackerel seasoned, and jack mackerel in tomato sauce. (The Suisan Tsushin, May 29, 1961, Shin Suisan Shimbun, May 22, 1961.)

Note: Japanese make a distinction between skipjack, albacore, and other species of tuna. "Tuna" includes yellowfin, big-eyed, and bluefin.

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SMALL FISH-CANNING COMPANIES TO BE ACQUIRED BY LARGE FIRMS:

The large fishing companies and commercial houses in Japan are reported to be push-

Japan (Contd.):

ing ahead with plans to control the smaller fish-canning companies for the purpose of increasing the production and consumption of their own brands. In this regard, the large fishing companies, which started to expand their marketing activities on a nation-wide scale since last year, are reported to have succeeded in limiting the number of different brands appearing on the market. To meet this competition, the large commercial houses, which own well-known brands and have excellent sales networks in Japan as well as in foreign countries, are reported to be seeking new tie-ups with the smaller fish-canning companies to protect their name brands and to acquire supplies. This competition within Japan has served to focus attention on the need of consolidating brands for the export market, such as in the United States, to meet the competition of other foreign products.

The above trend gained momentum last year following the poor tuna fishing season, and has been further accelerated this year due to the continuing poor season. Many smaller packers, in order to maintain their export quota which is allotted to them on the basis of production, have had to remain in production despite operating in the red. To continue operations, they obtained loans from the large fishing companies and commercial houses to tide them over the successive poor seasons, and have found themselves compelled to tie-up with these larger firms, which attached strings to the loans. (Nippon Suisan Shimbun, June 17, 1961.)

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STEEL COMPANY MAKES CHROME-PLATED STEEL SHEETS FOR CANS:

A Japanese iron and steel firm has succeeded in manufacturing chrome-plated thin steel sheets for the manufacture of cans and announced that it would put the product on sale in October 1961. The characteristic of the new product as compared with regular tin plate is that the new product is cheaper and resists corrosion. The manufacturing technique is entirely Japanese and the company intends to apply for a patent in the United States.

The price of the new product is expected to be \$194 per ton, compared with \$250 per ton for tin plate. The only difficulty with the

new product is that it is harder to solder than ordinary tin plate or galvanized steel sheets.

The Japanese firm making the chrome-plated steel sheets is one of the largest iron and steel mills in Japan and was reported to have succeeded in obtaining a loan of \$16,700,000 from the Import-Export Bank in the United States recently. (Japanese newspaper, June 5, 1961.)

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PRODUCTION OF FISH HAM AND SAUSAGES:

Japanese production of fish hams and sausages for 1960 amounted to 85,442 metric tons, compared with 64,670 tons in 1959--an increase of 32 percent for 1960, according to the Fish-Meat Ham and Sausage Society. Judging from sales during January-May this year, production is expected to amount to more than 100,000 tons in 1961, 30 percent more than 1960, according to estimates by the largest companies producing these products. Nearly all large Japanese fishery companies are engaged in processing fish hams and sausages.

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FISHERY AGENCY HOPES TO ESTABLISH INTERNATIONAL FISHERIES ADVISORY GROUP:

The Japanese Fishery Agency hopes to establish a single body called the "International Fisheries Policy Study Committee," which would be staffed by experts from Government and industry and concentrate on problems relating to international fisheries. The primary function of the International Fisheries Policy Study Committee would be to study available data on resources, inasmuch as all international fisheries disputes involve the basic problem of resource, and make recommendations to the Fishery Agency.

At the present time, problems concerning international fisheries involving Japan on the one hand and such countries as the Soviet Union, China, Korea, etc., on the other, are being handled by separate groups composed of Government and industry members. Industry members naturally express views with an eye to their own company's welfare, whereas the Fishery Agency is concerned with the welfare of the nation as a whole.

The idea of establishing an International Fisheries Policy Study Committee is not new.

Japan (Contd.):

Its formation had been considered in the past but this was as far as it got due to difficulties over policy and budget. It is likely that the Ministry of Finance may contend that such foreign activities are the responsibility of the Ministry of Foreign Affairs and may be reluctant to allot funds to establish this activity. (Suisan Keizai Shimbun, June 9, 1961.)

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SALMON OPERATIONS IN THE NORTH PACIFIC OCEAN:

On May 21, 1961, a total of 12 Japanese salmon motherships accompanied by 410 catcher vessels departed from Hakodate and Kushiro in northern Japan for the salmon fishing grounds in the North Pacific Ocean and Bering Sea. The salmon fleet left port as soon as the Northwest Pacific Fisheries Commission (Soviet Union and Japan) concluded its fifth annual meeting at Tokyo on May 21. The fishing fleets were due on the fishing grounds about May 28 and were scheduled to operate until the end of the season on August 10.

Japan's 1961 salmon quota in the Treaty area will be 65,000 metric tons and the Japanese Government has divided this quota as follows: 53,600 metric tons to the salmon mothership fleets and 11,400 metric tons to the land-based gill-net fishing fleet operating in the Treaty waters south of 48° N. No salmon long liners are permitted to operate in the Treaty area. The Soviet Union's 1961 salmon catch target is 80,000 metric tons.

As a result of the new fishing agreement, Japan's salmon catch for this season is expected to be 65,000 tons inside and 70,000 tons outside the Treaty area for a total of 135,000 tons--4,500 tons less than last year.

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SALMON MOTHERSHIP FLEETS IN NORTH PACIFIC MAKE EXCELLENT CATCHES:

Early in June 1961, the Japanese salmon mothership fleets in the North Pacific were reported to be concentrated in the area south of Attu Island and were said to be catching an average of over 100 metric tons of salmon per fleet per day. Red salmon of large size, according to reports, made up the bulk of the landings.

The Japanese salmon fleet departed port two days later this year but was reported to have exceeded last year's catch for the period up to June 1.

Around June 9 the Japanese press reported all 12 salmon motherships concentrated in the area between 170°25' east and 180° and 49° and 52° north. Catches were reported the highest in the postwar period with an average daily catch per fleet of 80 tons (evidently as fleet continued fishing average dropped) as compared to 65 tons in 1960. Catches were composed of 60 percent red or sockeye salmon and about 40 percent chum, with only nominal showings of pink. (United States Embassy, Tokyo, June 9, 1961.)

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KING CRAB FLEETS IN NORTH PACIFIC REPORT GOOD FISHING:

The Japanese king crab fleets operating in the Okhotsk Sea and in Bristol Bay are reported to be having excellent crab fishing. All crab fleets are said to be averaging about 12 crabs per tan of tangle nets. The Okhotsk

Japanese King Crab Fleets' Production as of May 22, 1961				
Area	Fleet	No. Cases	Percentage Recovery	No. of Crabs Caught Per Tan
Okhotsk Sea	<u>Hakuryo Maru</u>	16,021	30.1	12.0
" "	<u>Yoku Maru</u>	18,900	28.3	12.6
" "	<u>Kaiyo Maru</u>	15,483	30.2	11.4
" "	<u>Shiraneyama Maru</u>	14,244	27.8	11.7
Bristol Bay	<u>Tokei Maru</u>	35,658	-	11.9

Sea fleets have packed 25 percent of their quota of 260,000 cases of canned crab meat and the Tokei Maru (Bristol Bay) 45 percent of its quota of 80,000 cases. (Suisan Keizai Shimbun, May 26, 1961.)

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HALIBUT CATCH TARGET OF 28 NORTH PACIFIC BOTTOMFISH FLEETS:

The halibut catch target of the 28 Japanese bottomfish fleets scheduled to operate in the North Pacific (of which 20 are already on the fishing grounds) totals 47,000 metric tons. This represents an increase well over six times that of last year's catch of 7,200 metric tons. Of this year's catch, about 2,000 to 3,000 tons of frozen halibut are expected to be exported to the United States.

In 1960 the price of frozen halibut steaks exported to the United States was 35-38 cents

Japan (Contd.):

a pound, c.i.f. delivery east coast of the United States. In view of the much larger production this year, the export price is expected to fall to 32-33 cents a pound. (Suisan Tsushin, June 2, 1961.)

Editor's Note: Previous reports had announced the halibut catch target for 24 of the 28 fleets as 37,891 metric tons.

GOOD FISHING REPORTED BY SHRIMP FACTORYSHIP IN NORTH PACIFIC:

A large Japanese fishing company's factoryship Eijin Maru (7,400 gross tons) commenced shrimp fishing in the Bering Sea on May 20, 1961. As of May 23, the Eijin Maru packed 723 cases of canned shrimp, and 103 metric tons of frozen shrimp, and 21 tons of other products. Eijin Maru was operating in the vicinity of 57° N. latitude, 170° W. longitude.

The factory ship is scheduled to fish and pack for 130 days and is expected to return to Japan in mid-October 1961. The production target is 60,000 cases (48 7-oz. cans) of canned shrimp and some 3,500 tons of frozen shrimp, rockfish, Alaska pollock, and cod. (Suisan Keizai Shimbun, May 26, and June 8, 1961.)

NORTH PACIFIC BOTTOMFISH FISHERY TRENDS AS OF MAY 22, 1961:

A large Japanese fishing company's stern trawler, No. 50 Akebono Maru (1,470 gross tons), operating in Aleutian Island waters was reported to have caught 1,581 metric tons of fish as of May 22, 1961. Catch by species was: flatfish 1,062 metric tons, cod 37 tons, Alaska pollock 267 tons, rockfish 82 tons, shrimp 133 tons. (Suisan Keizai Shimbun, May 28, 1961.)

FISHING COMPANY PLANS EXPERIMENTAL TRAWLING OFF KODIAK ISLAND, ALASKA:

A large Japanese fishing company is planning to carry out experimental trawling off Kodiak Island, south of the Alaskan Peninsula. It is reported that the area has stocks of halibut, shrimp, and silver cod. Last year two other fishing companies, plus the one planning to trawl this year, conducted indi-

vidual experimental trawling operations and found that catch prospects were good.

This year's operation is expected to be on a small scale, using 2 or 3 research vessels. (Suisan Keizai Shimbun, May 31, 1961.)

ANOTHER COMPANY PLANS TRAWLING OPERATION OFF NORTHWEST AFRICA:

A third Japanese fishing company plans to participate in pelagic trawling beginning next year in the Atlantic off the west coast of Africa. The company will construct two large stern trawlers of the 1,500-ton class. One of the two will be completed by the year-end and the other by April 1962. At first, they will be used for fishing off New Zealand and later for development of fishing grounds off the northwest coast of Australia prior to being sent to the Atlantic off northwest Africa. Previously, two other companies had announced plans for trawling operations off northwest Africa. (Suisan Keizai Shimbun, June 2, 1961.)

GOVERNMENT TO SUBSIDIZE CONSTRUCTION OF TWO COLD-STORAGE PLANTS:

The Japanese Government has launched a four-year plan to subsidize the construction of 12 cold-storage plants and facilities in Japan. To get this program started, the Japanese Fishery Agency was allotted a budget of 100 million yen (US\$277,777) for FY 1961 (April 1, 1961 to March 31, 1962). This sum includes 97,500,000 yen (\$270,833) for subsidizing up to 30 percent of the construction of two cold-storage plants and 2.5 million yen (\$6,944) for subsidizing the construction of refrigerated rail cars.

For 1961 the Fishery Agency has selected the ports of Miyako (Iwate Prefecture) in northern Japan and Fukuoka (Fukuoka Prefecture) in southern Japan to receive this aid. Miyako was selected to help stabilize its saury fishery and Fukuoka was chosen to assist that city's mackerel fishery. Under the Government-aid plan, in addition to financial assistance to construct a freezing plant, Miyako will get two refrigerated rail cars and Fukuoka one. (Nippon Suisan Shimbun, May 26, 1961.)

Japan (Contd.):

FISH MEAL PRICES,
JANUARY-APRIL 1961:

Average domestic wholesale and export fish meal prices for January-April 1961 quoted by the Aquatic Oils Association of Japan were as follows:

	Domestic Wholesale Price		Export Price (f.o.b.)	
	US\$ Per Metric Ton	US\$ Per Short Ton	US\$ Per Metric Ton	US\$ Per Short Ton
1961				
January ..	1/161.67	1/146.67	139.42	126.48
February ..	165.00	149.69	147.20	133.54
March ...	166.67	151.20	149.00	135.17
April ...	163.89	148.68	2/	2/

1/Revised.
2/Not available.

The average price for April includes prices for saury, atka-mackerel, launce, jack mackerel-sardine meal, and fish waste cake (45 percent protein of cod and pollock). The price of fish waste cake was \$125 a metric ton while the prices of the other types ranged from \$161.11 to 166.67 a metric ton. (United States Embassy, Tokyo, June 9, 1961.)

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LANDINGS OF FISHERY PRODUCTS IN 1960:

Japan's total landings (excluding whaling operations) in 1960 amounted to 6,192,000 metric tons--5 percent more than the previous year when 5,880,000 tons were reported. For the first time, landings surpassed the 6,000,000-ton mark and established a new record. While in 1960 flatfish landings by mothership-trawling operations in northern Pacific waters almost doubled and horse-mackerel and common mackerel landings increased, mackerel-pike landings dropped as compared to 1959. In spite of increased landings, the average ex-vessel price of 13 cents per kilogram (5.9 U.S. cents a pound) was 18 percent higher than in 1959. Total ex-vessel value was \$922,222,222, about \$150 million more than the previous year. Whaling production amounted to 18,800 blue-whale units, a decrease from the previous year.

Marine landings amounted to 5,812,000 tons, 4 percent over the previous year. The increase is attributed to the catch in the North Pacific of fish for reduction (420,000 metric tons of fish utilized in the production of fish meal, twice as much as in 1959), horse-mackerel landings from the East China Sea, and tuna long-line catches in the Atlantic. Increases in those landings were partially offset by poor fishing for mackerel-pike, dip-netting, and hook-and-line skipjack tuna fishing. But prices were unexpectedly good. Trawling west of 130° in the North Pacific, medium-size trawling, and purse-seining catches were fairly stable. On the basis of species alone, 1960 landings were down by 43 percent for skipjack, 45 percent for saury, and 34 percent for sardines.

The catch of fresh-water fisheries amounted to 73,000 tons, and fish-culture yielded 280,000 tons.

The tuna long-line fishery with bases in Japan in 1960 caught 322,000 tons, 10 percent more than in 1959. Landings by the tuna long-line fishery with bases in the Atlantic were up 44 percent and amounted to 72,000 tons. The landings by the North Pacific mothership trawling operations in 1960 were

Species	1960	1959
... (1,000 Metric Tons) ...		
Sardine	78	119
Anchovy	349	356
Horse-mackerel	595	432
Mackerel	351	294
Mackerel pike	287	522
Skipjack tuna	94	166
Bluefin tuna	65	51
Albacore tuna	89	68
Big-eyed tuna	72	74
Yellowfin tuna	154	126
Salmon, trout	152	184
Flatfish, flounder	509	262
Cod	67	66
Alaska pollock	379	376
Atka mackerel	115	100
Others	1,166	1,130
Total fish	4,522	4,326
Shellfish	504	464
Other aquatic animals ..	776	753
Seaweeds	386	337
Grand total	1/ 6,188	5,880

1/No explanation is given as to why this total is less than the total of 6,192,000 tons mentioned in the text.

226 percent more than in 1959. The skipjack hook-and-line fishery landed 109,000 tons, 40 percent less than in 1959. (Japanese newspaper and Suisan Keizai Shimibun, June 1, 1961.)

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SCIENTIST SUCCEEDS IN HATCHING TUNA YOUNG:

The Nankai Regional Fisheries Research Laboratory (Kochi, Kochi Prefecture) reports that one of its scientists has succeeded in rearing big-eyed tuna from the egg stage and obtained valuable information concerning the morphology of the young of that species.

The experiment was conducted by stripping eggs from a ripe female big-eyed tuna and fertilizing them with sperm from a male big-eyed tuna. Water temperature was held between 28° and 29° C. (82.4°-84.2° F.). The first cell cleavage occurred in 40 minutes and tuna young (1.5 millimeters long) emerged after 21 hours.

This hatching experiment was done on the research vessel Taisei Maru, 579 gross tons, of Mie Prefectural Fisheries Research Station, while the vessel was engaged in tuna research in the Indian Ocean in February 1961. Three separate experiments were run, two of which met with success and two baby tunas were hatched.

The results of this work are to be reported at the Pacific Science Congress to be held in Honolulu in August. (Nippon Suisan Shimibun, May 31, 1961.)

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Japan (Contd.):

MODERN OYSTER CANNING AND FREEZING PLANT:

In Hiroshima, Japan, there was opened in 1960 a modern oyster-freezing and canning plant. It is owned and operated by a leading Japanese salmon-canning firm.

The oyster processed is *Ostrea gigas*, known on the North American west coast as the Pacific oyster. The oysters are grown in Hiroshima Bay. Raft culture only is employed. The oysters are grown on wires suspended from bamboo rafts and thus never touch the sea bottom. This method keeps them free from mud and drills and in a continuously moving current of water which promotes rapid growth.

The frozen and canned products are for export. Before entering the building, the shell oysters are spray-washed with water containing 100 parts per million of chlorine, and during processing the oysters are washed with water which meets drinking water standards. The oysters are hand-opened because steam opening has a tendency to shrink and toughen them.

Both frozen and canned oysters are hand-packed. The former are frozen individually in polyethylene sheets, formed into individual pockets and with a labeled cover which is heat-sealed before freezing. Freezing is done in 20 minutes at -30° F. Tunnel-freezing capacity is 10 tons of shucked oysters in 8 hours.

Technical guidance in plant design, equipment, and sanitary and quality control was provided by a west coast United States firm, which has been in the oyster business for many years, utilizing spat imported from Japan. This firm has world distribution rights to the oyster products produced by the Japanese plant. (Fisheries Newsletter, March 1961.)

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TOKYO'S FISH MARKET LARGEST IN ASIA:

Fish dealers throughout Tokyo converge each morning at the Uogashi fish market in Tsukiji, the largest wholesale fish market in Asia. The market is formally called the Metropolitan Central Wholesale Market. Although it also deals with fruits and vege-

tables, it is commonly known as the "fish market," and supplies a daily average of 1,600 tons of fish to the nine million citizens of Tokyo.

Approximately 1,600 licensed brokers and 25,000 retail fishmongers are at the market every morning, where a day's transaction reaches an average of ¥150 million (US\$417,000).

The origin of this market dates back to 1590 (18th year of Tensho) when Ieyasu Tokugawa established his Shogunate headquarters in Tokyo, then called Edo. Chief fisherman Mogoemon Mori, together with 30 others, was ordered by Ieyasu to supply fish required by his headquarters. The fish market was located on the banks adjacent to the Nihon-bashi in the center of Tokyo, and it prospered until destroyed by the 1923 earthquake. Immediately after the earthquake, it was relocated at its present site.

A typical day at the market, except for three regular holidays a month, begins at 4 a.m. The dim lights from the ceiling illuminate a vast variety of fish, some placed directly on wooden boards and others packed in wooden pails and cases. The first trickle of men are the brokers who act as middlemen between wholesalers and retail fishmongers. They check the variety and freshness of the fish displayed for the auction sales. The fish have been carried into the market from all parts of the country by trains, trucks, and vessels, arriving at the market from 10 p.m. of the previous night.

In the market, there are seven wholesale firms to which the fishermen entrust the sale of their fish--at a margin of six percent. About 60 percent of the fish is transported to the market by freight trains, 25 percent by trucks, and the rest by fishing boats. These fish are sorted and displayed by cargo agents who work throughout the night. The fish is sold to the highest bidder at the daily auction. Scores of brokers surround the wholesalers and go through the auctioning procedure with shouts and unique hand-signs. The bidding closes within an hour or so, and the fish is then carried to the stalls of brokers in the market to be sold later in the morning to retailers.

The brokers classify the fish by size and kind for the convenience of the retailers. Among the 1,600 auctioneers engaged in the bidding are several large independent buyers

Japan (Contd.):

for chain restaurants, schools, and institutions such as the Japan Self-Defense Forces and others. When the auction sales are closed, registered fish retailers come to the market. The rush hour created by these retailers is around 8 a.m., when the 200,000-square-meter market is filled with trucks, tricycles, and handcarts.

There are five ice plants inside the area, and five ice rooms capable of storing up to 9,000 metric tons of fish. In addition, there are offices and space for transport companies, restaurants, barber shops, fish companies, and labor unions.

All of the market buildings and the lots are owned by the Tokyo Metropolitan Government, which receives some ¥500 million (\$1,390,000) in annual rentals. About 200 employees of the Tokyo Metropolitan Government work at the market to facilitate its operations and management.

The most popular varieties of fish handled in the market are sardines, tuna and bonito, swordfish, red sea-bream, mackerel, mackerel-pike, flatfish, yellowtail, cuttlefish, whale, and blue shark. (Japan Report, May 15, 1961, Consulate General of Japan, New York City.)



Liberia

TUNA FISHING COMPANY ESTABLISHED BY JAPANESE:

As a second venture in West Africa, one of the large Japanese fishing firms has formed the Tuna Fishing Company of Liberia, according to the May 12, 1961, issue of Dansk Fiskeritidende, a Danish fishery periodical.

Soon there will be constructed in Monrovia, Liberia's capital, a fishery plant which will can tuna landed by six Japanese tuna vessels. In the next two years the fleet will be expanded to 30 vessels.

It is understood that the Liberian company will form the Japanese mother company's main undertaking in Africa. A similar affiliated enterprise already has started operations in Freetown, Sierra Leone, also on the West African Coast.

Malaya

JAPANESE-MALAYAN TUNA COMPANY IN FULL OPERATION:

During a period of 15 months to the end of April 1961, the Japanese-Malayan tuna company at Penang, Malaya, bought 1,234 metric tons of tuna from Japanese fishing vessels. The Malayan firm produced from the fish 70,610 cases of canned tuna (mainly in oil), 240 tons of frozen fish, and some fish sausages and fresh fish.

Offers for canned tuna from Europe came in as soon as sample cans had been distributed. Forward sales for six months have been contracted.

The firm's needs for Japanese fishing vessels have been filled. (Japanese periodical, June 1, 1961.)



Netherlands

ANTARCTIC WHALING PRODUCTION FOR 1959/1960 AND 1960/61 SEASONS:

The management of the Nederlandse Maatschappij voor de Walvisvaart (Netherlands Whaling Company) of Amsterdam has announced final figures on the total production of its Antarctic whaling expedition for the season ending April 6, 1961.

Netherlands Antarctic Whaling Production, 1959/60 and 1960/61

Product	Season	
	1960/61	1959/1960
	.. (Metric Tons) ..	
Whale oil	21,588	23,505
Sperm oil	1,708	337
Whale meal	3,947	4,711
Frozen whale meat	2,139	1,725
Meat for Japanese refrigerating vessel .	5,187	-

Since total production of whale oil is over 20,000 metric tons, it is expected that the maximum dividend of six percent will be paid for the fiscal year ending on June 30, 1961. The contract between the Netherlands Whaling Company and the Netherlands Government stipulates that the maximum dividend of six percent will be paid when production of whale oil is over 20,000 tons.

The entire 1960/1961 whale oil production has been sold to a British firm at £73/10 (US\$205.80) a long ton as compared to £72/10 (\$203.00) a ton in the previous year. (United States Embassy, Amsterdam, April 20, 1961.)

Note: Also see Commercial Fisheries Review, July 1960 p. 68.

* * * * *

Netherlands (Contd.):

PROFITS FROM 1960/61 ANTARCTIC WHALING SEASON DECLINE:

The Netherlands Whaling Company of Amsterdam has released preliminary financial figures for the 1960/1961 whaling season. In the statement accompanying the figures the management states that operating profits amounted to approximately fl. 6.5 million (US\$1,796,000) as compared to fl. 6.8 million (\$1,878,000) for the 1959/1960 season. Net profits will reportedly amount to only fl. 100,000 (\$28,000), as compared to fl. 1.1 million (\$304,000) for the previous fiscal year as a result of a loss of fl. 900,000 (\$249,000) caused by the revaluation of the guildler. However, a paper profit on the sale of the former factoryship Bloemendael to a Japanese company will compensate the revaluation loss, since the Bloemendael was sold before the revaluation. The dividend for 1960/1961 is expected to remain unchanged at six percent, the United States Consulate in Amsterdam reported on June 6, 1961.

Note: One guildler (abbreviated fl.) is equal to about US\$0.276.



Nigeria

JAPANESE-NIGERIAN JOINT FISHERY ENTERPRISE PLANNED:

An economic mission of the Nigerian Government was expected to arrive in Japan in mid-June 1961 to ask for a long-term loan to establish a joint Nigerian-Japanese fishing, canning, and reduction company. The company would be capitalized at ¥500 million (US\$1,389,000) at the first stage, consisting of ¥150 million (\$416,000) of cash plus other assets from Japanese interests, ¥200 million (\$556,000) from the Nigerian Government, and ¥150 million (\$416,000) from one Nigerian shipping and trading company.

During the 3-year plan, about a dozen Japanese tuna vessels of 100-150-ton class would be sent to Nigeria to catch annually about 25,000 metric tons of tuna. A cold-storage plant for 2,000 tons of frozen fish, a cannery, a reduction plant, and a processing and salt fish plant would be built.

It is said that most of the products produced would be marketed locally and that in the future a fish school with laboratory

would be constructed. (Japanese fishery periodical, March 31, 1961.)

* * * * *

SURVEY OF FISHERIES POTENTIAL OF WESTERN REGION PLANNED:

The western region of Nigeria has been allotted \$564,000 from the United Nations Special Fund for a survey of the area's fisheries. In addition to the Special Fund allocation, the Government of Nigeria will contribute the equivalent of \$265,000 towards the cost of the survey, which will be conducted by the Food and Agriculture Organization.

Due to the high consumption of fish in the Western Region of Nigeria, half of which is imported, it has been decided to explore the possibility of setting up a modern system of fish production and distribution. The Special Fund assistance in carrying out a fisheries survey of the area will involve two phases. The first, lasting one year, will consist of a survey to determine the most economical way



A 20-foot aluminum surf boat designed and built in England for the Nigeria Fisheries Department. It is an experimental vessel designed under Food and Agriculture Organization guidance for ring-net fishing. Shows the rudder being placed in position during the first trials of the boat.

of catching fish and of collecting fish from scattered villages and delivering them to a central distribution point on land. This phase will also cover fish production, handling, processing, and possibly the feasibility of fish pond culture. If the survey confirms the feasibility of developing fisheries, the project will then proceed to demonstration and pilot schemes to determine the most economical methods of undertaking development and expansion of the fishing industry.



Norway

NEW DESIGN OF STERN TRAWLER PROVIDES PALLETIZED STOWAGE OF CATCH:

A "look-all-round" wheelhouse and fish stored in aluminum pallets are two of the interesting features in a new shelterdeck stern-trawler design developed by a Bergen, Norway, shipyard. Designs have been developed for trawlers of 186 feet and 213 feet. Before laying the designs, observations were made of the factoryship-trawler Fairtry III; and Russian, German, and Dutch designs for stern trawlers were studied.

Particular attention was paid to factors such as range and versatility, as the vessels must be equally suitable for long salt-fish trips or short trips to provide fresh fish for coastal processing plants.

To facilitate the discharge of raw fish to the processing plants, the catch will be boxed in aluminum boxes or trays stacked on pallets, and the floor of the fish hold will be kept clear for the movement of forklift trucks. The fish hold will have a capacity of 2,900 boxes. Each box will hold a layer of ice and 100-110 pounds of fish. In the lower hold, each pallet will hold 22 boxes and in the 'tween decks, 18 boxes. In the smaller of the two designs, there is provision for two tanks in which it is hoped to store minced waste, if means can be found to preserve it.

The deck layout will be such that there is a minimum trawl deck length of 70 feet, and gear will be handled in a manner similar to that developed on the original Fairtry. Below decks, it is intended to keep the fishing gear operations and fish-stowing and gutting activities sharply separated by means of structural division. The fish will be gutted below the trawl deck aft, and processing machinery and fish meal plant may be installed at the owners' discretion. At present it is planned to keep the bulk of the fish in boxes in a chilled fish hold. Prime fish such as halibut will be frozen in the round and kept in cold storage. (World Fishing, May 1961.)

* * * * *

STERN TRAWLER EXPECTED TO EXTEND FISHING TIME AT SEA:

Norway's first stern trawler, the 630-gross ton, 151-foot long, Hekktind, was built in North Norway at a cost of about Kr. 3.5 million (about US\$489,500). Designed for

deep-sea fishing, it can carry about 380 metric tons of fresh fish in 2,400 standard size aluminum cases. Its refrigerated storage room has a capacity of over 10,000 square feet.

An ordinary Norwegian trawler operates about 250 days a year, but its effective fishing time is much less. With the Hekktind, it is hoped, the effective fishing time can be extended to about 250 days out of 325 operating days a year.

Before the contract was signed for construction of the Hekktind, nearly Kr. 1 million (US\$140,000) was spent on preparatory work and tests in the Ship Model Tank at the Institute of Technology in Trondheim. (News of Norway, May 4, 1961.)

* * * * *

COD FISHERY TRENDS, JANUARY 1-MAY 5, 1961:

The 1961 season's total landings of mature cod and young cod in Norway January 1-May 5, 1961, amounted to 108,325 metric tons, compared with 96,209 tons last year. Of the landings, 60,263 tons were sold for drying, 24,808 tons for salting, while 23,254 tons were sold fresh (including 14,007 tons for filleting). The fishery also yielded for the season 48,049 hectolitres (4,469 metric tons) of cod-liver oil. (Fiskets Gang, May 11, 1961.)



Peru

FISH MEAL PRICES AND SALES, FEBRUARY 14-APRIL 30, 1961:

In an attempt to help stabilize the world market for fish meal, Peruvian producers have formed an association (Consortio Pesquero del Peru) or Consortium. The Consortium will administer Peru's 600,000-metric-ton export quota and allocate the quota among the Peruvian producers. The Consortium became effective on February 15, 1961, and set up quarterly export quotas for 1961 as follows: first quarter, 200,000 tons; second quarter, 140,000 tons; third quarter, 90,000 tons; and fourth quarter, 170,000 tons.

As a service to the members of the Consortium, a Boletín Informativo is being issued reviewing fish meal prices, market conditions, sales, and other information of value. The following review of fish meal prices and sales in the European market and United States markets were included in the March 15, April 15, and April 30, 1961, issues of the Boletín Informativo.

During February-April 1961, f.o.b. prices for Peruvian fish meal advanced from about US\$70.00 to about \$90.00 a short ton for shipments both to European and United States markets.

When the Consortium began operations, there were offers of only \$90 c.& f. a metric ton or \$81.65 a short ton c.& f.; al-

Peru (Contd.):

Table 1 - Peruvian Fish Meal Prices, February 14-April 15, 1961

Period and Destination	Unit	Price Range in US\$			
		Opening	Highest	Lowest	Closing
Flat Market Prices 1/:					
United States East Coast Shipments:					
March 16-April 15	short ton c.&f.	N	N	N	N
February 14-March 15	" " "	92.08	92.08	92.08	92.08
" " "	short ton f.o.b. 3/	71.67	71.67	71.67	71.67
European Shipments:					
March 16-April 15	short ton c.&f.	92.53	92.53	92.53	92.53
" " "	short ton f.o.b. 3/	73.48	73.48	73.48	73.48
February 14-March 15	short ton c.&f.	86.18	92.53	86.18	92.53
" " "	short ton f.o.b. 3/	67.13	73.48	67.13	73.48
Protein Market Prices 2/:					
United States West Coast Shipments:					
March 16-April 15	protein unit c.&f.	1,497	1,497	1,497	1,497
" " "	short ton c.&f.	97.30	97.30	97.30	97.30
" " "	short ton f.o.b. 3/	70.99	70.99	70.99	70.99
February 14-March 15	protein unit c.&f.	1,433	1,497	1,433	1,497
" " "	short ton c.&f.	93.15	97.30	93.15	97.30
" " "	short ton f.o.b. 3/	66.84	70.99	66.84	70.99
European Shipments:					
March 16-April 15	protein unit c.&f.	N	N	N	N
February 14-March 15	protein unit c.&f.	1,325	1,475	1,325	1,475
" " "	short ton c.&f.	86.13	95.88	86.13	95.88
" " "	short ton f.o.b. 3/	67.08	76.83	67.08	76.83

"N" - No sales.

1/ "Flat" market is for sales made with a guaranteed minimum of protein (usually 65 percent). Any excess of protein is to the buyer's advantage. The most important flat markets for Peruvian fish meal are the east (including Gulf of Mexico) coast of the United States and West Germany.

2/ "Protein" market is based on the price per unit of protein and buyers must pay for any excess protein found by laboratory analysis of shipments on arrival. The most important market on this basis is the west coast of the United States.

3/ The Boletín Informativo showed prices in metric tons c.&f. F.o.b. prices were calculated by subtracting US\$19.05 a short ton (equal to \$21.00 a metric ton) for cost of freight to Europe, \$26.31 a short ton (equal to \$29.00 a metric ton) for freight to the United States west coast, and \$20.41 a short ton (equal to \$22.50 a metric ton) for freight to U. S. Gulf of Mexico ports. Prices per unit converted to prices per short ton on basis of 65 percent protein meal.

Table 2 - Peruvian Fish Meal Prices, April 16-April 30, 1961

Destination and Type of Meal	Unit	Price Range in US\$			
		Opening	Highest	Lowest	Closing
Flat Market Prices 1/:					
United States Shipments	short ton c.&f.	N	N	N	N
European Shipments:					
Anchovy meal (regular)	short ton c.&f.	96.16	111.13	96.16	109.77
" " "	short ton f.o.b. 3/	77.11	92.08	77.11	90.72
Anchovy meal (steam-dried)	short ton c.&f.	124.74	124.74	124.74	124.74
" " "	short ton f.o.b. 3/	105.69	105.69	105.69	105.69
Bonito meal	short ton c.&f.	88.91	100.70	88.91	100.70
" " "	short ton f.o.b. 3/	69.86	81.65	69.86	81.65
Protein Market Prices 2/:					
United States Shipments:	protein unit c.&f.	1,796	1,796	1,796	1,796
" " "	short ton c.&f.	116.74	116.74	116.74	116.74
" " "	short ton f.o.b. 3/	90.43	90.43	90.43	90.43
European Shipments	short ton c.&f.	N	N	N	N

For footnotes see table 1.

Peru (Contd.):

so that it was not considered desirable to sell at the maximum price for June of \$100 a metric ton or \$90.72 a short ton c.&f., since the average price at the end of the February 15-March 15 period was \$102 a metric ton or \$92.53 a short ton c.&f.

A representative of the Consortium provided the following information about prices between April 21 and the close of the month: The c.&f. price for shipments to Europe was \$121 a metric ton. Since freight to Europe is \$21 a metric ton, the f.o.b. price would be \$100 a metric ton or \$90.72 a short ton. The Consortium made some sales at \$132 c.&f. Belfast. Since the freight rate to that point is \$28, the f.o.b. price would be \$104 a metric ton or \$94.35 a short ton. The higher price for the Belfast sales was because it was steam-dried fish meal which sells at a premium. On May 10 the price for the regular meal was \$100 a metric ton or \$90.72 a short ton f.o.b. Peruvian ports, and for shipment to the U. S. west coast the price was \$1.98 per unit of protein c.&f., or \$90.45 a short ton for 65 percent meal.

Table 3 - Peruvian Fish Meal Sales^{1/}, Feb. 14-April 30, 1961

	April 16-30	Mar. 16- April 15	Feb. 14- Mar. 15	Total
(Metric Tons).....			
Flat Market Sales:				
To U. S.	N	N	700	700
To Europe	7,087	200	13,400	20,687
Protein Market Sales:				
To U. S.	200	1,100	7,300	8,600
To Europe	N	N	5,200	5,200
Total	7,287	1,300	26,600	35,187

^{1/}Exclusive of future contracts made prior to February 15, 1961.
"N" - No sales.

On the basis of payment on the actual protein content, the metric ton price to the United States west coast for the period March to June ranged from \$1.58 to \$1.65 per unit of protein c.&f., and for shipment to Europe the price ranged from \$1.48 to \$1.55 per unit of protein c.&f.

The Consortium received more than 200 firm buying proposals, of which 73 were approved as of mid-May and contracts have been closed for 26,600 metric tons between March and June, with a sales value of about \$2.5 million. These sales represented the total of producers' offerings for sale during that period.

The Consortium contracted for freight rates outside Conference rates at \$20.50 to Europe, \$22.50 to the United States Gulf of Mexico coast, and \$28-\$30 to the United States west coast. But it was reported that the Conference decided upon the rate of \$21.00 to Europe until further notice.

The Executive Committee of the Consortium on March 27 decided to reduce to 1 percent the broker's commission for sales to the United States.

At a meeting in Paris in September 1960, of the representatives of fish meal manufacturers of the five leading fish meal exporting countries, it was agreed that the total exports by the five countries would be a maximum of one million tons for 1961. The agreement was signed on October 1, 1960. Peru was allotted the annual export quota of 600,000 or 60 percent of the total. The Peruvian Government subsequently ratified this agreement by a Supreme Decree of December 16, 1960. (United States Embassy, Lima, May 15, and May 18, 1961.)

Poland

NEW FIVE-YEAR PLAN FOR FISHING INDUSTRY:

Poland is planning to extend the operations of her deep-sea fishing vessels to grounds of the north and central Atlantic, as part of her latest Five-Year Plan for the fishing industry.

The plan also provides for the employment of 7,000 more men in the fisheries during the next five years, over 4,000 of them on land, and the extension of the fisheries training school at Gdynia to teach potential deep-sea captains and future masters of factory-trawlers. A midwater trawl is to be used for catching herring.

Details of this latest Polish plan are given in Polish Maritime News, which recalls that during the last Five-Year Plan, for 1956-60, the Polish fisheries economy recorded considerable rises in fish landings. These totaled 167,700 metric tons in 1960, exceeding the plan by 12,000 tons.

The new Five-Year Plan, for 1961-65, aims at these landings; 1961--173,000 tons; 1962--181,500 tons; 1963--205,200 tons; 1964--235,000 tons; 1965--270,000 tons. Thus the landings fixed for 1965 are greater by 102,300 tons than those in 1960.

This rapid rise is based on the assumption that Polish shipyards are to build 13 factory-trawlers, 6 freezing-trawlers, 28 motor trawlers, 1 steam trawler, 36 79-foot and 20 56-foot cutters.

Improved supplies of fish products on the home market are expected to cut down imports of fish. In 1960 a total of 19,600 tons of fish and fish conserves were imported against only 6,500 tons exported.

Imports in 1965, it is claimed, will be limited to 5,000 tons of herring. "The value of the 10,500 tons of fish and conserves to be exported will be seven times greater than the total value of the imports," says the paper. It also declares that the value of the fishing industry's products will rise in 1965 by 72.2 percent as compared with 1960.

It is assumed that up to 1965 the state-owned fisheries flotilla will require 100 new captains, 213 navigators, 55 radio officers, 217 engineers, 20 chief stewards, and 20-fish-processing technicians.

Poland (Contd.):

The first course at the Gdynia training school is being attended by 26 experienced captains of fishing vessels.

There is also a steady flow of graduates from the Deep-Sea Fisheries School, and various courses for training ship's officers and a second sea fisheries school is foreseen.

Fishing technique is to be improved by adopting midwater trawls on the cutters and trawler-trawlers when fishing for sprats and herring. "Detachable fish-bags" are being adopted this year with trawls and midwater trawls on the Baltic and North Sea fishing grounds, also along the West African coast.

The paper declares that in February 1961, during four days of fishing on the grounds off the SW. Norwegian coast, a 79-foot cutter caught about 75 tons of herring by mid-water trawls. It says the catch average per hour was five times higher than when using the traditional trawl.

Machines for the manufacture of scale ice and for the icing up of boxes to be shipped to Poland are also to be set up this year, and three firms will soon receive home-made machines for ice.

Plans for the processing industry are also being extended, involving the production of fish conserves reaching 19,900 tons in 1965, against 10,800 tons in 1960. In view of the planned rise in landings of fresh and frozen fish by about 50 percent, and the rapid increase in the manufacture of fillets on the factory-trawlers--16,000 tons in 1965--the rebuilding of refrigerated stores has become urgent. Seven fish refrigeration stores are to be built in various centers by 1966. (The Fishing News, May 12, 1961.)



Portugal

CANNED FISH PACK, JANUARY-MARCH 1961:

Portugal's total pack of canned fish in oil and sauce for the first quarter of 1961 amounted to 3,738 metric tons. The sardine pack and the anchovy fillet pack combined accounted for 91.8 percent of the total pack.

Product	January-March			
	1961		1960	
	Metric Tons	1,000 Cases	Metric Tons	1,000 Cases
In Oil or Sauce:				
Sardines	1,715	90	2,301	121
Chinchards	17	1	11	1
Mackerel	32	1	2	-
Tuna and tunalike . .	178	6	543	19
Anchovy fillets . . .	1,718	172	1,387	138
Others	78	4	148	8
Total	3,738	274	4,392	287

The pack in 1961 was substantially less than in the first quarter of 1960 due to a sharp drop in sardines offset slightly by an increase in anchovy. There was also a sharp drop in the pack of tuna in the early part of 1961. (Conservas de Peixe, May 1961.)

CANNED FISH EXPORTS, JANUARY-MARCH 1961:

Portugal's exports of canned fish during the first quarter of 1961 amounted to 16,468 metric tons, only slightly less than in the same period of 1960. Sardines accounted for 83.5 percent of the 1961 exports, followed by anchovy fillets with 10.2 percent.

Product	January-March			
	1961		1960	
	Metric Tons	1,000 Cases	Metric Tons	1,000 Cases
Sardines	13,753	723	14,287	752
Chinchards	277	14	244	13
Mackerel	95	4	58	3
Tuna and tunalike . . .	570	20	456	13
Anchovy fillets	1,685	169	1,203	120
Others	88	4	436	23
Total	16,468	934	16,684	924

Portugal's principal canned fish buyers in the first quarter of 1961 were Germany with 3,060 tons, followed by the United States with 2,192 tons, and Great Britain with 2,151 tons. (Conservas de Peixe, May 1961.)



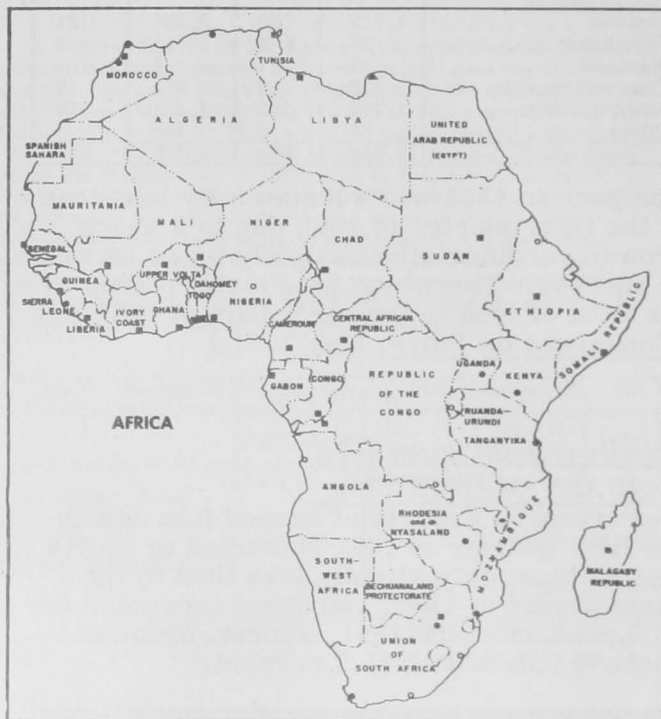
Senegal

1960/61 TUNA FISHING SEASON:

The Senegalese 1960/61 tuna fishing season began November 1, 1960, and came to a close April 30, 1961, one month behind schedule. The catch was still almost 6,000 metric tons short of the 13,500 tons expected from the season's operations. Also, the Senegalese partially committed themselves by agreement

Senegal (Contd.):

to catch that amount for French and other markets.



The 1960/61 season was a discouraging one for Senegal because of the scarcity of tuna in local waters, and some of the vessels were compelled to travel as far as the Ivory Coast for their catch. Further adversity occurred on March 10 when 18 vessels, or more than a third, abandoned the fleet and returned to their home ports.

Type	Fleet	Quantity Metric Tons
Frozen tuna	French	2,660
	Senegalese	710
Total frozen		3,370
Fresh tuna	French	4,488
	Spanish	2,918
	Senegalese	162
Total fresh		7,568
Total fresh and frozen		10,938

The number of vessels engaged in the Senegalese tuna fishing season from November 1960 through April 1961 ranged from a low of 31 vessels in November to a high of 50 vessels during January. Of this number, an average of about 10 vessels a month operated as freezer-fishing vessels (principally French and 1 or 2 Senegalese). In addition, Spanish, other French vessels, and one Senegalese

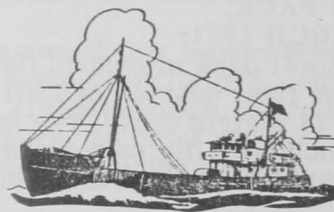
vessel accounted for most of the fresh tuna catch for the season.

The season's tuna landings were utilized as follows: 6,300 tons were canned for export to the French market, and 400 tons were shipped to outside markets. If the French commitment is to be met, an additional 3,700 tons would have to be shipped to the French market, and 3,100 tons for export to other markets.

At the start of the fishing season, France had agreed to purchase 10,000 tons of canned tuna from Senegal, and 3,500 additional tons were to be exported to markets outside the franc area. The poor season, however, resulted in most of the canned tuna being exported to France where a high guaranteed price is paid, but commitments to other export markets could not be filled.

In order to fulfill its commitments, the Government of Senegal was seeking to purchase tuna from other suppliers than the French, who were then returning home for the start of their season. France agreed to this, and to provide the necessary dollars, but only under the condition that the canned tuna be shipped entirely outside the franc area. At that time it appeared as if several Spanish clippers would be obtained to provide 500-600 tons of tuna. The remainder of the more than 2,000 tons to be exported could be purchased from the Japanese, although the Senegalese are extremely hesitant about taking such action. But it was believed, too, that the Japanese may not be overly anxious to make sales to Senegal.

Senegal is already looking about for a solution to its problem for the next season. The primary requirement, in the eyes of the Government, is to create a Senegalese fleet. This would be done by inducing French or Spanish vessels to transfer registration to Senegal, and by forming a joint public-private company to purchase additional clippers. Continued emphasis is reportedly placed upon export markets, so as to free the Senegalese from dependence upon France. (United States Embassy, Dakar, May 29, 1961.)



South-West Africa

TUNA FISHING WITH LONG-LINE TESTED:

Early this year, the initiative of two Walvis Bay fishing industrialists has resulted in the first local attempts to catch tuna off the South-West African coast using the Japanese long-line method. Tests of this method followed the encouraging results in Union of South African waters where research into the Japanese long-line method was started by the Division of Fisheries vessel Kunene and by the commercial motor trawler Cape Point.

Two Walvis Bay pilchard fishing boats, the Karimona and the Curlew, were equipped with line haulers and with other long-line gear. In a trip lasting six days, they fished successfully about 120 to 180 miles northwest of Walvis in 1,000 to 1,200 fathoms of water. The average surface temperature of the water was 17 to 18° C. (62.6-64.4° F.)

Two to three miles of lines were fished with the baited lines hung 20 fathoms apart. The depth fished was 15 to 20 fathoms. With this test gear, about 100 tuna were caught--bluefin, yellowfin, and albacore--weighing from 20 to 300 lbs. In addition, two blue marlins were taken. The results are considered to be encouraging and have shown that tuna is readily available in South-West African waters. (The South African Shipping News and Fishing Industry Review, April 1961.)

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MORE RUSSIAN FISHING VESSELS OFF COAST:

The total of Russian fishing and transport vessels identified off the coast of South-West Africa has now moved up to nine. In addition to the research trawler Muksun, the stern trawlers Radichev, Izumrud, and Taras Schewtchenko, and the larger vessel Atiubinsk seen in February 1961, two more stern trawlers, the Marmin Siberyk and the Tchernychewsky, have been seen in company with a tanker and a supply ship.

According to a report in the Namib Times, the previously identified trawlers were sighted about the middle of March about 65 miles west of Pelican Point. In addition, the Tchernychewsky was seen taking fuel from a 7,000-ton tanker. The supply ship Provorny was lying about 500 yards away from the trawler and tanker.

Interest in this Russian venture into Southern African fishing waters flared early in April when it was announced from Moscow that a Soviet scientific expedition ship had found a huge rich fishing ground "off the Cape of Good Hope." This ship, presumably the Muksun, located an area estimated at 6,000 square miles packed with fish, particularly mackerel and sardines. According to the report, which was given out by Moscow radio, a fleet of refrigerated ships had been sent to the area and one trawler was catching 70 to 80 tons a day.

By early April, however, no Russian ships had been sighted in Union of South Africa Cape waters. The Moscow report, therefore, may well refer to the Kaliningrad fleet operating off South-West Africa.

There seems little doubt that the Soviet vessels are in African waters primarily to exploit the rich fishing resources. Expensive factory trawlers, each costing R2,000,000 (US\$2.8 million) are being used. (The South African Shipping News and Fishing Industry Review, April 1961.)



Spain

PRODUCERS HOPE FOR HIGHER IMPORT DUTIES ON FISH MEAL:

Fish meal manufacturers in Spain's Canary Islands are expressing the hope that higher import duties against foreign fish meal will be recommended by the Customs Board now studying proposals for changes in Spain's tariff.

The Government has issued a decree extending for six months (until December 1961) the period for revising the customs tariff, which went into effect in June 1960. The Tariff Law of May 1, 1960, provided that the Government could make a one-time revision of the tariff within one year after it became effective. The apparent reason for the extension was that there had not been sufficient time to study the many requests received from interested parties, domestic and foreign, for tariff revisions.

It has been pointed out that imports of fish meal into Spain totaled 66,452 metric tons in 1960 as compared with only 886 tons in 1958 and 20,081 tons in 1959. Present production in the Canary Islands approximates 80 percent of Spain's total requirements of fish meal. The press reports plans for the expansion of production in the Canaries with the goal of fully meeting Spain's requirements. (United States Embassy, Madrid, June 2, 1961.)



Sweden

FUTURE OF HERRING FISHERY OFF ICELAND UNCERTAIN:

The future of Swedish herring fishing off Iceland is in an uncertain stage. In 1960 par-

Sweden (Contd.):

icipation was limited to only 11 of the 23 vessels which had announced their intention to take part. With this in mind, the Swedish Government has declared that if the participation is equally bad this year, the patrol vessel will be redirected to the Fladen fishing grounds in the North Sea.

The lack of interest displayed by Swedish fishermen in herring fishing off Iceland is attributed by the chairman of the Swedish Icelandic Fishing Association to (1) late fixing of prices; (2) freight rates which made cargo-carrying more attractive than fishing; (3) change in ownership of a number of vessels, etc. In addition there is the difficult problem of manning the fishing vessels. This grows out of the circumstance that income from fishing has not kept pace with earnings ashore.

Finally, there is the problem arising out of the size of the new fishing vessels. They have become too big for Icelandic fishing in the opinion of the Association official. By way of explanation he says that a good catch is one of between 800-900 barrels. The new fishing vessels, however, can carry about 1,300 barrels and it is extremely seldom that a catch is that large.

A positive factor, which encourages the Association official to feel that Icelandic herring fishing will continue despite the handicaps, is the relatively large demand for Icelandic herring. Yearly imports total 125,000-150,000 barrels. The canning factories and the salted herring trade never buy less than 100,000 barrels a year, the United States Consulate in Goteborg reported on May 23, 1961.

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MINIMUM EX-VESSEL PRICES FOR COD INCREASED:

In order to stimulate fishing for cod, the Swedish Board of Agriculture decided to in-

crease the minimum prices for cod landed on the Swedish south coast during the period July 1-December 31, 1961.

Prior to that period, the minimum price was 0.59 crowns per kilo (5.2 U. S. cents a pound) for skinned cod with head on and with a length of 50 centimeters (19.7 inches) or more, and 0.56 crowns per kilo (4.9 U. S. cents a pound) for skinned cod with head on and with a length of between 35 and 49 centimeters (13.8-19.3 inches). For unskinned cod the minimum price for the larger type was 0.51 crowns per kilo (4.5 cents a pound) and for the smaller type the minimum price was 0.48 crowns per kilo (4.2 cents a pound). For this type of cod the minimum price increased by 0.04 crowns per kilo (0.35 cents a pound).

For skinned cod without head and with a length of at least 40 centimeters, the minimum price was 0.84 crowns per kilo (7.4 cents a pound), whereas for skinned cod without head and under 40 centimeters (15.7 inches) in length the minimum price was 0.74 crowns per kilo (6.5 cents a pound). The price increase for this type of cod was 0.06 crowns per kilo (0.5 cents a pound) based on the new prices.

An official of the West Coast Central Association stated that the increase in the minimum prices for cod must be considered as an effort to reduce the surplus of herring that normally is landed during the months of August and September. He thought, however, that the increase in price is too small to encourage west coast fishermen to change over from herring fishing to cod fishing. It may, on the other hand, be sufficient to encourage some south coast fishermen to remain with cod fishing rather than turning to salmon at that time of the year. (United States Consulate, Goteborg, May 18, 1961.)

* * * * *

MARINE OIL SUPPLY AND FOREIGN TRADE:

Sweden's total supply of marine oils was expected to increase in marketing year

Table 1 - Sweden's Supply and Utilization of Marine Oils for Marketing Years (Ending June 30) 1959/60-1960/61

Item	Estimated 1960/61				1959/60			
	Whale Oil Crude	Fish Oil Crude ^{1/}	Other Marine Oil ^{2/}	Total	Whale Oil Crude	Herring Oil Crude	Other Marine Oil ^{2/}	Total
	(Metric Tons)							
Opening stocks, July 1 . . .	1,400	4,100	7,900	13,400	1,300	3,700	11,000	16,000
Production	-	1,500	-	1,500	-	1,500	-	1,500
Imports	3,000	7,000	30,000	40,000	1,564	5,846	25,287	32,697
Total Supply & Utilization	4,400	12,600	37,900	54,900	2,864	11,046	36,287	50,197
Exports	-	3,000	7,000	10,000	-	2,698	6,297	8,995
Utilization:								
Food	3/	3/	3/	28,000	3/	3/	3/	27,126
Other	3/	3/	3/	900	3/	3/	3/	676
Ending stocks, June 30 . .	1,000	3,000	12,000	16,000	1,400	4,100	7,900	13,400

^{1/}Mostly herring oil.

^{2/}Mainly refined whale and herring oil.

^{3/}Not available.

Sweden (Contd.):

Table 2 - Sweden's Foreign Trade in Marine Oils, July 1959-December 1960

Item	Imports			Exports		
	July-Dec. 1960	Jan.-June 1960	July-Dec. 1959	July-Dec. 1960	Jan.-June 1960	July-Dec. 1959
	(Metric Tons)					
Whale oil, raw	7,467	1,565	-	-	-	-
Sperm oil, raw	88	71	90	-	-	-
Seal oil, raw	4	22	4	-	-	-
Herring oil, raw	1,232	3,974	1,903	1,302	966	1,732
Vitamin oil products . .	27	1/13	40	-	-	-
Fish-liver oil, etc. . . .	784	1/395	899	-	-	-
Other marine oils	14,682	9,487	15,058	1/18	1/1	5
Hydrogenated marine oil, including refined	334	377	180	3,499	4,167	2,125
Total	24,618	15,904	18,174	4,819	5,134	3,862

1/Not reported in table 3.

Table 3 - Sweden's Imports of Marine Fats and Oils by Country of Origin, Calendar Year 1959-1960^{1/}

Product and Country of Origin	1960	1959
	(Metric Tons)	
Whale Oil, Raw:		
Holland	-	956
Norway	4	5,102
Japan	9,028	-
Total	9,032	6,058
Sperm Oil, Raw:		
Norway	66	100
Great Britain	92	54
West Germany	1	1/
Total	159	154
Seal Oil, Raw:		
Norway	24	17
Denmark	2	3
Total	26	20
Herring Oil, Raw:		
Norway	72	92
West Germany	2,384	3,755
Denmark	1,204	763
Iceland	1,546	1,647
Total	5,206	6,257
Highly Vitaminized Oil Products:		
Norway	12	16
Japan	12	52
France	3	-
Total	27	68
Medical & Veterinary Fish-Liver Oil:		
Norway	710	752
Iceland	-	37
West Germany	-	54
Denmark	65	91
Japan	9	-
Total	784	934
Fats & Oils, Fish & Marine, Other (also Refined):		
United States	17,645	16,927
Norway	809	754
West Germany	4,787	3,112
Peru	522	488
Denmark	374	48
Iceland	22	-
Belgium	0	-
Great Britain	5	-
Japan	5	-
Total	24,169	21,329
Hydrogenated Marine Fats & Oils, also Refined, but not Otherwise Prepared:		
Norway	706	407
Denmark	2	55
Great Britain	3	-
Total	711	463
Grand Total	40,114	35,283

1/ Table does not include 13 tons of vitamin oil products and 395 tons of fish-liver oil, etc., imported in early half of 1960 as shown in table 2.

1960/61 (ending June 30, 1961) as compared with marketing year 1959/60. Production will remain constant during that period, but imports, utilization, and exports should increase in 1960/61 (table 1).

Sweden's total imports of marine oils amounted to 18,174 metric tons during the last 6 months of 1959. During the first 6 months of 1960 they decreased to 15,904 tons, but increased sharply in the last half of 1960 to 24,618 tons due mainly to increased raw whale oil imports. Exports of marine oils from Sweden are not as impor-

Table 4 - Sweden's Exports of Marine Fats and Oils by Country of Destination, Calendar Years 1959-60^{1/}

Product and Destination	1960	1959
	(Metric Tons)	
Herring Oil, Raw:		
Norway	1,659	1,852
W. Germany	451	315
Denmark	1/	513
Austria	16	10
Italy	91	32
Holland	51	-
Total	2,268	2,722
Hydrogenated Marine Fats & Oils, also Refined, but not Otherwise Prepared:		
Finland	182	440
France	791	744
Morocco	714	479
Jamaica	1,378	1,106
Switzerland	226	113
Iran	15	35
French Antilles	161	119
British Guiana	173	162
Austria	579	342
Norway	224	8
Denmark	817	357
Great Britain	2,117	20
West Germany	-	72
Italy	-	55
Soviet Union	-	1,000
Spain	-	49
Czechoslovakia	100	140
Trinidad	180	-
Haiti	9	-
Total	7,666	5,241
Grand Total	9,934	7,963

1/ Does not include a small quantity of "other marine oils" shown in table 2.

Sweden (Contd.):

tant, but increased slightly in the first half of 1960, due to increased shipments of hydrogenated marine oil (table 2).

The United States was Sweden's leading supplier of marine oils in 1959 and 1960. Japan was the second most important source of marine oils in 1960 due to her large shipments of raw whale oil to Sweden. In 1960, imports of raw whale oil from Norway fell drastically. Imports from West Germany of fish, marine animal, and other fats and oils increased in 1960 as against 1959, but imports of raw herring oil decreased (table 3).

Sweden's exports of marine oils increased from 7,963 tons in calendar year 1959 to 9,934 tons in 1960. Exports consisted mainly of hydrogenated marine fats and oils (sent mostly to Great Britain and Jamaica) and herring oil (most of which was sent to Norway)--see table 4.

Use	Metric Tons
Table Margarine^{1/}:	
Not hydrogenized	156
Hydrogenized	20,595
Total	20,751
Bakery Shortening:	
With animal fat	1,767
With vegetable fat	4,225
Total	5,992
Total Margarine and Shortening	26,743
Baking Aids:	
11-24 percent fat	19
25-60 " "	193
Over 60 " "	48
Fat Emulsion:	
Cream substitute	11
100-Percent Fat:	
Coconut oil	2/
Artificial lard, etc.	80
Other products	32
Grand Total	27,126
^{1/} Including the margarine part in so-called "restaurant mixture."	
^{2/} Less than one ton.	

In April 1961, f.o.b. export prices of marine oils in Sweden ranged from £71 10s. per long ton (8.93 U. S. cents a pound) for crude hydrogenated oil, to £75 a ton (9.37 cents a pound) for refined hydrogenated oil, £38 10s. a ton (4.81 cents a pound) for distilled oil, and £45 10s. (5.68 cents a pound) for distilled hydrogenated oil. (U. S. Foreign Agricultural Service Report, Stockholm, April 14, 1961.)

Note: See *Commercial Fisheries Review*, August 1960 p. 71.



Taiwan

GOVERNMENT PROMOTING EXPANSION OF FISHERIES:

Under the program titled "Plan to Develop High Seas Fishery" (part of a Four-Year Economic Plan), the Taiwan Government has actively helped finance the construction of fishing vessels, development of new fishing grounds, establishment of overseas bases, and the repair of port facilities. This Government aid to different segments of the fishing industry has resulted in a tremendous expansion of the fisheries in the last few years.

The catch of the distant-water fishery in 1960, which totaled 85,210 metric tons, increased 94 percent over the 1956 catch of 43,988 metric tons. The number of fishing vessels engaged in the distant-water fishery in 1960 totaled 366 (total of 36,532 gross tons). This was an increase of 162 vessels (total of 18,613 gross tons) over 1956.

Production of the distant-water fishery was boosted by 15,000 tons in 1960 as a result of Government financial aid provided in 1959 to construct 30 130-ton trawlers, which could also be used for pole-and-line fishing, and six distant-water vessels. This aid was provided to fishermen under the "Plan to Develop High Seas Resources."

As of mid-1961, Taiwan was constructing four large tuna vessels of 250 tons each and two 550-ton tuna vessels. The latter two large tuna vessels are scheduled to be sent to the Atlantic Ocean. Taiwan is also planning to construct a research vessel of 700 tons.

Taiwan sent out research vessels in 1959 to the waters off Viet Nam, Malaya, and North Borneo to locate new fishing grounds. Good bottom fishing grounds were discovered off Viet Nam, as well as off Formosa, to which large vessels were immediately dispatched.

As far as overseas bases and overseas operations are concerned, a supply base (for fueling and repairing vessels) has been established at Singapore. In 1960, one vessel of 350 tons was sent to the Atlantic Ocean off West Africa to fish on an experimental basis. This vessel landed 450 tons of fish (presumably tuna) in six months, and Taiwan plans to send another vessel of this size to West Africa this year.

The catch of the adjacent-seas fishery in 1960 amounted to 94,856 metric tons, an in-

Taiwan (Contd.):

crease of 49 percent over the 1956 catch (63,663 metric tons). In 1960 the vessels engaged in this fishery numbered 5,092 (total of 41,326 gross tons). This was an increase of 281 vessels (total of 13,632 gross tons) over 1956, and the Taiwan Government will be subsidizing the construction of 45 vessels in the 30- to 50-ton class and 12 purse-seine vessels in the 25-ton class under the "Plan to Develop High Seas Resources."

Purse-seine vessels contributed the largest amount of the catch of the adjacent-seas fishery in 1960. The pole-and-line tuna vessels produced less tuna in 1960 than in 1959 since their operations were curtailed to some extent due to the dispute with the Philippine Government over territorial waters. Taiwan fishermen are hoping for a quick settlement of the dispute. (Suisan Keizai Shimbun, June 11, 1961.)

Note: Also see Commercial Fisheries Review, April 1961 p. 85; correction: In that issue, the landings shown for "deep sea fisheries" in the table should have been "85,210" instead of 85,310 metric tons.



Union of South Africa

FROZEN TUNA IS EXPORTED FOR FIRST TIME:

The development of a South African tuna fishing industry has taken another step forward by three large fishing concerns working in cooperation with a fishery products export and equipment supply house. Early in 1961, about 100 short tons of frozen tuna, caught by long-line from Union of South Africa boats normally engaged in pilchard fishing, were exported to the United States and Italy.

Initial efforts to assess the potential of the tuna resources off the Cape coast and to attempt to catch the fish by the Japanese long-line method were started last year by the Union's Division of Fisheries and by the South African Museum. The Division of Fisheries has been using the 70-ft. long research vessel Kunene northwest of Slangkop; the South African Museum has had the use of a commercial 70-ft. motor trawler Cape Point. Although both vessels have done their fishing on a comparatively small scale, they have taken some outstanding catches. And, during the 1960 closed season for pelagic shoal fishing, the Kunene took some of the pilchard boat skippers to sea so that they could gain practical long-lining experience.

In September-October 1960 the first commercial attempts at long-line fishing were made and then in November three large fishing concerns placed 6 to 7 vessels in a larger-scale commercial project based on Hout Bay. The long-line gear--synthetic fiber line, hooks, and line haulers--was supplied by a company which had previously supplied gear for the Cape Point. The United States parent company of that firm was among the pioneers of the tuna import-export trade and, through its world-wide network of associate companies, the local company was able to find a ready market for South African frozen tuna.

The boats engaged in long-lining off the Cape are typical pilchard vessels fitted with long-line haulers. They have

been using about 30 baskets each about 300 yards long with six hooks to a basket. Each boat is out for 18 to 20 hours and the line is laid and taken in usually three times during that period.

Fish are gutted and bled aboard the vessel and, on landing, the head and fins are cut off. After freezing, the fish are stored for a short period and then glazed ready for shipment at temperatures between 0° and 5° F. in the refrigerated holds of ships destined for the United States or Italy.

Although the shipping of frozen tuna is generally done with the fish unwrapped, Italy's shipping requirements have obliged the exporters to wrap each fish in a stockinette or hessian covering. Exports to Italy and America bring about £100 (US\$280) a short ton and the fish is used in those countries for canning.

The firms carrying out these larger-scale tests of a commercial tuna fishery are reported to be planning further developments in the future, and the useful initial work of the research vessels may lead eventually to the establishment of a substantial tuna industry in the Cape. (The South African Shipping News and Fishing Industry Review, April 1961.)

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PILCHARD-MAASBANKER FISHERY, JANUARY-FEBRUARY 1961:

The Union of South Africa Cape west coast pilchard-maasbanker fishery for the first two months of the 1961 season yielded 163,930 short tons pilchards, 7,735 tons maasbanker (jack mackerel), and 8,756 tons mackerel. The total catch was 180,421 tons.

Union of South Africa--Products Produced from Pilchard-Maasbanker Fishery Landings, January-February 1961				
Fish Meal	Fish Oil	Canned		
		Pilchards	Maasbanker	Mackerel
Short Tons	Imp. Gals.	(1,000 Lbs.)		
36,320	3,225,841	8,020	1,953	2,933

The February catch comprised a record 94,051 tons pilchards, 990 tons maasbanker, and 4,935 tons mackerel. These figures compare with 19,609 tons pilchards, 13,037 tons maasbanker, and 17,728 tons mackerel in February last year; and with 26,443 tons pilchards and 9,588 tons mackerel in February 1959.

The February catch this year yielded 19,034 short tons fish meal, 1,883,381 Imperial gallons fish body oil, 5,708,048 pounds canned pilchards, 189,888 pounds canned maasbanker, and 2,113,656 pounds canned mackerel. (The South African Shipping News and Fishing Industry Review, April 1961.)

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PILCHARD-MAASBANKER FISHERIES TRENDS, APRIL 1961:

The Union of South Africa's fishing season, which opened on January 1, 1961, was off to a record start, according to the statis-

Union of South Africa (Contd.):

tics on landings of pilchard, maasbanker, and mackerel during the first quarter of 1961. Landings of those species for the quarter totaled 246,622 short tons. Raw fish intake at the factories for the first quarter of 1960 totaled 169,533 short tons. With the April landings expected to reach 80,000 short tons and the season due to run until July 31, the prospects are that the Union fishery will set a new record for this year. The record 1960 pilchard, maasbanker, mackerel catch totaled 453,387 short tons. (United States Embassy, Pretoria, May 17, 1961.)



U.S.S.R.

EXPANSION OF FISHING FLEET CONTINUES:

At the Admiraltskij Zavod shipyard in Leningrad there is being built a second large fish-canning factoryship for the Far East, according to the April 20, 1961, issue of Leningradskaja Pravda. The vessel has been given the name Pavel Tsjebotnajagin.

The Esthonian fleet has taken over a new large fast trawler of 3,800 tons displacement, 87 meters (285.4 feet) long with a beam of 14 meters (45.9 feet). According to Vodny J Transport of April 25, it was to leave soon for the Newfoundland Banks together with the motherships Johannes Vares and Jan Anvelt. Somewhat later the new freezer vessel Sovjetskaja Rossija was to depart.

The Baltijskij Zavod in Leningrad has begun the building of a series of large freezer trawlers of the Krylov and Ljudas Gira type. This type has modern equipment with large freezing capacity and also equipment for the manufacture of canned products, fish meal and oil. The crew is $4\frac{1}{2}$ times larger than for medium trawlers, according to Sovjetskaja Litva for April 20. (Fiskets Gang, May 18, 1961, a Norwegian fishery periodical.)



United Arab Republic

REGULATIONS GOVERNING FREEZING AND EXPORT OF SHRIMP:

There are no laws or regulations presently in force in the United Arab Republic re-

garding sanitary requirements applicable to the culture, harvesting, or processing of various species of shellfish.

The only fishery product covered by regulations within the United Arab Republic appears to be shrimp, the freezing and processing of which is governed by the Republics Departmental Order No. 271 issued in 1958 by the Ministry of Industry.

The Departmental Order as published in the Egyptian Official Journal No. 62, dated August 11, 1958, listed the following regulations:

"Specifications of Frozen Shrimps:

"I - Frozen shrimps are fresh shrimps fit for food consumption which are exposed to such a degree of cold temperature as to cause the freezing of all the liquids they contain.

"II - Shrimps intended for freezing must be fresh and have preserved their natural properties. Care must be taken, immediately after they are fished, to have them kept in ice or in mechanically refrigerated rooms at a temperature not exceeding 0° Centigrade so as not to expose them to damage.

"III - The freezing of shrimps must take place between -4° C. and -17.7° C. (24.8° F. and 0° F.) and the storing and shipping of frozen shrimps be in refrigerators the temperature of which does not exceed -15° C. (5° F.). Exporters must give evidence that shipments are effected at this temperature.

"IV - Frozen shrimps for exportation must be graded according to size and wrapped in paper impervious to humidity and packed in containers made of wax carton. Frozen shrimps also may be covered with a thin layer of ice and placed in boxes covered with wax paper impervious to humidity and susceptible of sealing by heat.

"V - The containers must bear the name of the factory, that of the product (frozen shrimps), the net weight, and the name and percentage of added substances, if any. To make easy transportation, the containers of frozen shrimps must be placed in larger boxes made of reinforced cardboard or in wooden cases." (United States Embassy, Cairo, May 17, 1961.)



United Kingdom

WHOLESALE FIRM PREDICTS CONTINUED BIG DEMAND FOR FRESH FISH:

"Frozen fish is not a substitute for fresh fish, and never will be," remarked a spokesman of a prominent London, England, wholesale fish firm in an address at a dinner meeting in April 1961. The reference was prompted by a work stoppage at Grimsby and Hull where skippers objected to Icelandic boats landing fish, which resulted in a scarcity of fresh fish.

The speaker went on to say that in the last year or so there had been comments that the fish trade was in the doldrums, and that his firm's policy to concentrate solely on the sale of quality fresh fish had been criticized by those who claimed the future of the industry was in frozen fish. He pointed out that his firm sold more fresh fish in the past year than ever before. Fresh fish, he continued, will maintain its demand for a mighty long time, and that despite the extensive television advertising of frozen fish, there is and will remain an enormous demand for fresh fish. The firm's policy, he stated, was to continue to buy good fresh fish.

The firm's spokesman predicted that in the years ahead there would still be many people who would demand and buy fresh fish. (Fish Trades Gazette, April 15, 1961.)

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TRAWLER "PRINCE CHARLES" WINS SILVER COD TROPHY FOR 1960:

The winner of the coveted Silver Cod Trophy for 1960 in Great Britain was the Hull trawler Prince Charles. The total landings of the 691-ton trawler for trips made during 1960 were somewhat more than 39,604 kits or 5,544,560 pounds (valued at US\$425,986), the highest amount landed during the year by any distant-water trawler fishing out of Britain's three main ports. The 1959 winner of the trophy, the Falstaff, came in second in the 1960 competition with total landings only 118,440 pounds less than the Prince Charles. The Falstaff's winning total in 1959 was 39,695 kits or 5,557,300 pounds. (Fish Trades Gazette, January 14, 1961.)

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EXPERIMENTS CONDUCTED ON WHETHER OR NOT FISH SEE TRAWL NET:

A question that has puzzled fishermen for countless years is--do fish see the trawl? Experiments have been carried out to obtain the answer by the Marine Laboratory, Aberdeen, Scotland.

In the spring of 1960, the Laboratory was able to establish shoals of herring in some large disused oyster cleaning tanks near Stranraer. The tanks were 50 feet by 40 feet with about 4 feet of water, and it was possible to test the behavior of herring when various types of obstacles were approaching them.

A number of different devices were used--various types of trawl ground ropes, strings of seine-net floats or trawl floats, a string of underwater lights, a curtain of air bubbles, and some netting and model trawls.

In daylight it was found that any device that could be seen easily would herd the herring quite effectively. The fish generally first reacted to the approaching obstacle when it was only 4 to 5 feet away and then swam about the same distance in front of it.

The best herding was obtained with obstacles at the same level as the fish. The speed of approach was also important. In most experiments it was between 1 and 2 knots and there was time for the fish to be herded. At speeds in excess of three knots the fish were quickly overtaken.

As a marked contrast, in darkness, the herring weren't herded by these moving obstacles. When they were pulled through the tank, the herring passed above or below or were struck by them. This held true even with the curtain of air bubbles and string of underwater lights.

These contrasting observations between daylight and darkness suggest the importance of sight when herring react to obstacles.

By doing repeated experiments at dusk as the light became reduced, it was possible to measure the minimum amount of light required for herding. In a later survey at sea it was found that the light on the sea bed will very often be below this minimum, even in broad daylight.

This will occur either in fairly clear water at a good depth or in shallower depths where the water is murky.

United Kingdom (Contd.):

This may mean there will be many times when sight will be ineffective in herding fish. Where sight is important, for instance, in clear or shallow water in daylight, these devices will have to be very effective to perform their function in the short time available at normal trawling speeds before the fish are overtaken.

It is difficult to say at this stage how important other factors such as vibration or noise are. It is not possible to produce the same conditions in a tank as those resulting from the use of a trawl at sea.

The Laboratory hopes this year to start solving this problem by the use of recorded trawl noises and by devices for producing vibrations and to see what effect these have. (The Fishing News, May 26, 1961.)



Viet-Nam

ACHIEVEMENT IN FISHERIES DEVELOPMENT:

Major achievements in the area of fisheries development in Viet-Nam during the first quarter of 1961 were three: the devel-



opment of new export markets, the discovery of large schools of threadfin further north than ever before, and the undertaking of a survey of the nation's fisheries resources.

In the field of exports, new contracts were signed by fishermen's cooperatives--2 with Bangkok firms, 1 with a Singapore firm.

Considerable progress was made toward identification of Viet-Nam's fisheries resources and toward the development of a statistical section within the Fisheries Directorate under the supervision of a Japanese Government fishery statistician employed by a United States consultant firm under a U. S. International Cooperation Administration contract. A series of four questionnaires were used by Vietnamese officials to secure information on the fishing industry--numbers and distribution of fishermen, numbers and type of boats, type of gear used, amount and type of catch, at what seasons and depths, etc. At the end of the reporting period, data from the survey was beginning to come in. ICA technicians say that it will probably not be reasonably complete until September 1961, but will be ultimately important as a basis for scientific fisheries management, and avoiding overexploitation of fishing resources.

At the beginning of March, through the use of one of the fish-finding devices supplied by U. S. Operations Mission to the Fisheries Directorate, a large concentration of threadfin (*Polynemus*) was discovered approximately 35 miles southeast of the fishing port of Ham Tan in Binh Tuy Province, which represented the first discovery of this type of fish in commercial quantities north of Cap St. Jacques, and has resulted in new prosperity for fishermen of the area. (They receive VN\$60 per kilo (almost 78 U. S. cents a pound) for threadfin as opposed to VN\$14 (18 cents a pound) for tuna and VN\$4 (5 cents a pound) for sole.) Threadfin from the Ca Mau area has for several years been an important export item to Singapore, with exports to Bangkok now starting. Fisheries technicians have cause to believe that the discovery of these fish in that area may indicate the presence of considerable schools further north.

In other developments, there was continuing progress in developing new methods of preserving and processing marine fish and shellfish. Two specific achievements of the technology section of the Fisheries Directorate were: (1) the development of a method for reducing nuoc mam (fish sauce, a staple item and important source of protein in the Vietnamese diet) to solid form, which has important military uses, and (2) development of a high-quality agar-agar, a dried sea-

Viet-Nam (Contd.):

weed product made from a blend of 5 types of seaweed found in the coastal waters of central Viet-Nam, a commodity which has not been produced before in Viet-Nam.

Motorization of the Vietnamese bamboo-bottom fishing junks, which continued during the first part of 1961, has vastly expanded the fishing range, and has made possible location of offshore fishing areas previously out of reach by sail or oar. Approximately

300 specially-adapted engines were distributed during the first quarter of 1961, though not all had been installed.

A complete listing of the types of commercial fish commonly found in Viet-Nam was prepared by U. S. Operation Mission and contract technicians. The list identifies the fish by scientific name, Vietnamese name, and common English name. (United States Embassy, Saigon, June 8, 1961.)

Note: Values converted at rate of VN\$35 equal US\$1.



FISHERY BYPRODUCTS SUBJECT TO SPONTANEOUS HEATING

Product	Tendency to Spontaneous Heating	Usual Shipping Container or Storage Method	Precautions Against Spontaneous Heating	Remarks
Cod Liver Oil	High	Drums, Cans, Glass	Avoid contact of leakage from containers with rags, cotton, or other fibrous combustible materials.	Impregnated organic materials are extremely dangerous.
Fish Meal	High	Bags, Bulk	Keep moisture 6% to 12%. Avoid exposure to heat.	Dangerous if overdried or packaged over 100° F.
Fish Oil	High	Barrels, Drums, Tank Cars	Avoid contact of leakage from containers with rags, cotton, or other fibrous combustible materials.	Impregnated porous or fibrous materials are extremely dangerous. Tendency of various fish oils to heat varies with origin.
Fish Scrap	High	Bulk, Bags	Avoid moisture extremes.	Scrap loaded or stored before cooling is extremely liable to heat.
Menhaden Oil	Moderate to High	Barrels, Drums, Tank Cars	Avoid contact of leakage from containers with rags, cotton, or other fibrous combustible materials.	Dangerous on fibrous products.
Whale Oil	Moderate	Barrels and Tank Cars	Avoid contact of leakage from containers with rags, cotton or other fibrous combustible materials.	Impregnated fibrous materials may heat unless ventilated. Tendency varies with origin of oil.