International

NORTHWEST ATLANTIC FISHERIES COMMISSION

STANDING COMMITTEE ON RESEARCH AND STATISTICS MEETS:

The Standing Committee on Research and Statistics of the International Northwest Atlantic Fisheries Commission met in Moscow May 24-June 9, 1962. This meeting preceded the 12th Meeting of the Commission (June 4-9).

INTERNATIONAL NORTHWEST PACIFIC FISHERIES COMMISSION

JAPAN-SOVIET FISHERY NEGOTIATIONS DEADLOCKED ON SALMON REGULATORY AREA ISSUE:

Talks at the sixth annual meeting of the Japan-Soviet Northwest Pacific Fisheries Commission, in session in Moscow as of mid-April 1962, deadlocked over the problem of expanding the salmon fishing regulatory area. Japanese delegate Takasaki met with Soviet representative Ishkov, according to a translation from the Japanese periodical Sankei Shimbun of April 12, 1962.

During three lengthy meetings Takasaki had with Ishkov, which lasted from 3 to 5 hours, Takasaki had endeavored to persuade the Soviet Union to modify its attitude. The Japanese delegation led by Takasaki was determined not to yield to the Soviet demand to expand the regulatory area to include waters south of 45° N. latitude, even if it meant sacrificing the salmon catch.

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JAPANESE SEND TOP OFFICIAL TO MOSCOW IN ATTEMPT TO BREAK DEADLOCKED FISHERY TALKS:

In an effort to break the deadlock at the sixth Northwest Pacific Fisheries Commission meeting (Japan-U.S.S.R.) in Moscow, Japanese Agriculture and Forestry Minister Kono, accompanied by the presidents of two of the largest fishing companies as advisors, left Tokyo on May 1, 1962, for Moscow. At Moscow, Minister Kono met Premier Khrushchev, Deputy Premier Mikoyan, and Fisheries Chief Ishkov. The Minister hoped to break the deadlocked negotiations by offering to fix the annual Japanese total salmon catch, within Treaty waters, at 60,000 metric tons, reports the Japanese periodical Suisan Keizai Shimbun of May 1 and 2, 1962.

Prior to his departure, Minister Kono held a meeting on April 30 with Foreign Minister Kosaka, State Minister Miki, and Fisheries Agency Director Ito to confer on the final position Japan should take in pursuing the negotiations. As a result, a decision was reached to: (1) oppose any Soviet attempt to extend the regulatory area south of 45° N. latitude; (2) give Minister Kono full authority to deal with the problems related to catch regulation and fishing area restrictions; and (3) assume a flexible attitude toward the matter of applying stricter control over the catch outside Treaty waters, for the Soviet Union was likely to apply much pressure on this problem. The Soviet Union's attitude was expected to harden, particularly since the Japanese Government had authorized salmon fishing in the unrestricted waters south of the Treaty area, according to the Japanese periodical.

The Japanese proposal to limit Japan's catch within Treaty waters to 60,000 metric tons is reported to be the lowest of all offers made by Japan in the past six years. At the 1961 negotiations, Japan had proposed a catch limit of 80,000 metric tons, which was the previous lowest offer. (Editor's note: Japan finally settled for a catch quota of 65,000 metric tons in 1961.)

The decision to make the low 60,000-ton offer was based on the fact that the 1962 salmon season is expected to be a poor year, according to Russian and Japanese scientists,

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and Japan wants to seek an early settlement without haggling over catch quotas. Also, by reducing the Japanese salmon fleet operating in the Treaty waters by 10 percent and by voluntarily seeking to regulate the catch in the non-Treaty waters (instead of being pressed by the Soviet Union to accept a low quota as in years past), Japan hoped to seize the initiative at the fisheries negotiations and eliminate the mutual distrust existing between the Soviet Union and Japan. However, Japan does not ever intend to compromise the catch quota to anything less than 60,000 tons, according to Minister Kono, who hoped to reach an agreement with the Soviet leaders in about two weeks, the Japanese periodical points out.

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JAPANESE AND SOVIETS REACH AGREEMENT ON NORTH PACIFIC SALMON AREAS AND CATCH QUOTAS:

The sixth annual meeting of the International Northwest Pacific Fisheries Commission (Japan-U.S.S.R.) was formally concluded on May 12, 1962. The meeting was held in Moscow. By the terms of this year's agreement, Japan and the Soviet Union agreed to establish two areas, to be referred to as Area A and Area B. Area A includes the waters to the north of 45° N. latitude (present treaty waters) and Area B the waters to the south of 45° N. latitude. The following regulations will apply to the two areas in 1962:

Catch: Area A - 55,000 metric tons; Area B - 60,000 metric tons. The quota for Area A is 10,000 tons less than in 1961.

Fishing Season: Area A - For mothership-type operations, season will commence May 15 and end August 10. For land-based gill-net fishery, season will open on June 21 and close August 10. Area B - For land-based gill-net and long-line fishery, season will commence April 30 and close June 30.

Fishing Gear: Area A - Catcher vessels assigned to the mothership fishery will employ gill nets with knot-to-knot mesh sizes of 60 millimeters (about 2.4 inches or more, of which over 50 percent must consist of nets with knot-to-knot meshes of 65 mm. (about 2.6 inches). In 1963, over 60 percent of the gear must be 65-mm. mesh nets. Use of long-line gear will be prohibited. Area B - Length of gill nets to be fished by any one vessel will be reduced from 15 kilometers (9 miles) to 12 kilometers (7.2 miles) in 1963. Gill nets with knot-to-knot mesh sizes of over 55 millimeters (about 2.2 inches) will be used. Long lines with gangling lines of over 0.522 mm. (0.02 inch) in diameter will be employed.

Japan and the Soviet Union agreed that regulatory measures for Area B will be enforced by Japan in 1962, but the Soviet Union reserves the right to place observers on Japanese patrol vessels. Enforcement in Area B will henceforth be regulated under Article VII of the Russo-Japanese Fisheries Treaty and methods of enforcing regulations in Area B in 1963 will be subject to the approval of the Northwest Pacific Fisheries Commission.

Japan and the Soviet Union also agreed that the catch quota for Area B in 1963 may be raised up to 10 percent from this year's 60,000-ton quota, in accordance with recommendations submitted by the fisheries scientists of the two governments. Catch quota for Area B in 1964 will be negotiated at the seventh annual meeting of the Commission in 1963. Catch quota of Area A in 1963 will be subject to negotiations at the same meeting. (Nippon Suisan Shimbun, May 9 & 11; Shin Suisan Shimbun, May 14, 1962.)

Editor's Note: Up to this year Area B (waters south of 45° N. latitude) had been under the unilateral jurisdiction of Japan and catch quotas were established unilaterally by Japan. Area A (waters north of 45° N. latitude) was the only area under the joint control of Japan and Russia prior to this year. The Japanese started fishing in Area B on April 30 even though agreement with Russia had not been reached on that date. In Area A fishing started on May 15.

Final agreement was reached outside the Commission meetings by Japanese Agriculture and Forestry Minister Kono (who went to Moscow early in May accompanied by the presidents of two of the largest fishing companies as advisors) and Soviet Fisheries Chief Ishkov.

The Soviet Union and Japan on April 12 reached agreement on the 1962 Northwest Pacific king crab production quota, according to translations from the Japanese periodicals Suisan Tsushin (April 14 & 16) and Suisan Keizai Shimbun (April 15, 1962).

The total production quota was set at 315,000 cases of 96 6.5-oz. cans. Converted to Japanese case size, this amounts to 630,000 cases of 48 No. 2 or 6.5-oz. cans. Of the total, the Soviet Union's share is 189,000 cases (equivalent to 378,000 Japanese cases) and Japan's share 126,000 cases (equivalent to 252,000 Japanese cases). This year's quota for the Soviet Union is 3 percent less than the quota of 195,000 cases in 1961, and for Japan it is also 3 percent less than the 130,000 cases in 1961.

The Soviet Union will operate six king crab fleets; Japan four fleets. Fishing regulations covering fishing areas, fishing period, and gear restrictions are the same as in 1961. In accepting the lower quota this year, the Japanese side stipulated that they were not acknowledging that the crab stocks in the Kamchatka area were in a state of decline.

Japan will operate the factoryships Yoko Maru (5,764 gross tons), Kaiyo Maru (5,500 gross tons), Hakuyo Maru (6,430 gross tons), and Seiyo Maru (6,054 gross tons). All four factoryships departed for the fishing grounds in the Okhotsk Sea by April 16.

Crab fishing by the Japanese and Soviets in the North Pacific is regulated in terms of the canned crab meat pack. This type of fishing was unrestricted in 1957, but beginning with 1958 there have been restrictions imposed. Japan's quota has been progressively reduced, with this year's quota 21 percent smaller than the 1958 quota.

Note: See Commercial Fisheries Review, May 1962 pp. 42 and 60; March 1962 p. 32; February 1962 pp. 50 and 82; January 1962 p. 43; July 1961 pp. 40 and 75; August 1961 p. 47; October 1961 pp. 41 and 43.

INTERNATIONAL PACIFIC SALMON FISHERIES COMMISSION

SOCKEYE AND PINK SALMON STUDIES

The Sweltzer Creek Field Station being built for the International Pacific Salmon Fisheries Commission by the Canadian Government was in partial operation as of late May 1962. The laboratories will not be fully staffed or equipped with the required automatic temperature controls until this fall at which time a public inspection will be arranged. Some exploratory experiments already are in operation to aid in

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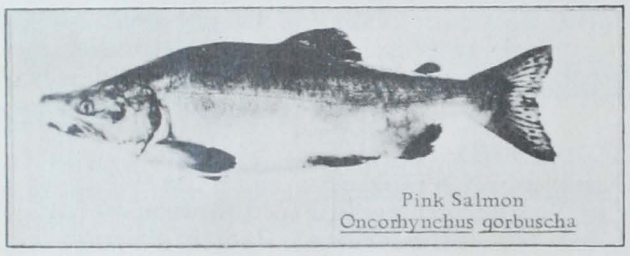
designing a full scale investigation into the cause of: (1) the relation of Fraser River flow to the adult survival of sockeye salmon; (2) the relation of temperature and salinity in Georgia Strait to the adult survival of pink salmon.

The State of Washington has indicated that salt-water facilities may be made available to the Commission at their Bowman's Bay Station near Anacortes. These facilities will be of considerable value in the study of sockeye yearlings and pink salmon fry during the period of estuarial interchange.

The downstream migration of sockeye smolts from Chilko Lake is almost complete for 1962 with a record number of 39 million fish estimated through mid-May. Trapping gear operated at Mission, B. C., revealed that the Chilko migrants reached Mission (a distance of 300 miles) in 3 to 5 days. This downstream migration rate is faster than previously believed possible. Studies will now be undertaken to determine the effect of delaying the entry of experimental groups of Chilko migrants into salt water by the time required to pass through a theoretical reservoir such as that which would be created by Moran Dam.

The artificial spawning channel at Seton Creek, in operation for the first time in the fall of 1961, received 6,711 pink salmon or 11 percent of the total pink salmon escapement to Seton Creek. Spawning was 98 percent effective which demonstrated the suitability of the channel for natural spawning. The suitability of natural spawning grounds is generally indicated by the success of egg deposition. Of the total of 6,723,000 eggs estimated to have been naturally deposited in the channel, 52 percent or 3,550,000 survived to healthy fry on the basis of final counts. The total capacity of the channel is 10,000 fish and this capacity should be fully utilized when the run returns in 1963. The success of this and other properly designed artifical spawning channels is fully justifying this method as a limited substitute for natural spawning grounds. The increasing adult return to the Jones Creek Channel near Hope, B.C., indicates that the fry produced by this method have a normal survival rate to maturity.

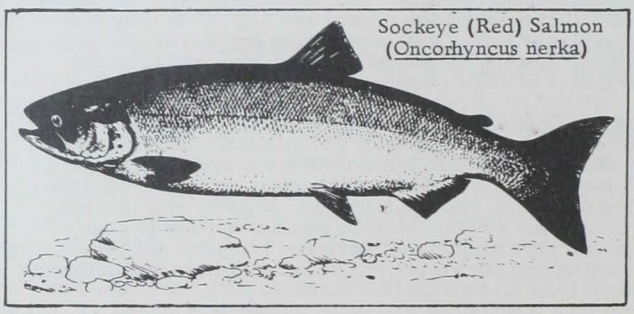


Pink Salmon
Oncorhynchus gorbuscha

It would appear that all conditions as of May were favorable for the survival of pink salmon returning as adults in 1963. Spawning and incubation conditions were excellent. The fry hatch appeared very good considering that the 1961 escapement was below that believed necessary for a maximum run. The marine factors related to adult survival appeared to be optimum.

Extensive observations on the distribution and growth of sockeye fingerlings and pink salmon fry are being carried out between the mouth of the Fraser River and Race Rocks. Complete environmental records are being accumulated as a basis for extensive laboratory work to be conducted as the necessary facilities are made available. A substantial increase in the number of pink salmon fingerlings over the number present in 1960 is quite obvious throughout the Gulf and San Juan Island areas.

Two sources of mortality occurred during the downstream migration of sockeye smolts this spring.



Sockeye (Red) Salmon
(Oncorhyncus nerka)

Failure on the part of the Seton Creek power plant to maintain full load during the downstream migration of sockeye from Seton Lake resulted in a serious loss of migrants. When the power plant is on full load the measured mortality is less than 10 percent. When the plant is on partial load as it was during the peak of this year's migration, the mortality can be very serious. During the downstream migration in the previous cycle year a similar part-load plant operation was associated with a 62 percent decline in the returning adult sockeye run. It may be expected as a result of this year's mortality from the power tur-

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bines that a further decline will be evident in the Seton Creek sockeye run returning in 1964.

The first available evidence indicated that the dead fish floating in the Lower Fraser during late April and early May 1962 originated at the Seton Creek power plant. Later it was found that the fish killed at Seton Creek were sinking to the bottom of the river and the floating fish were of Chilko Lake origin. The cause of death of the Chilko fish observed has not yet been assessed, but present indications are that natural conditions may be responsible. No artificial factor has been located to date and pathological studies are continuing on the specimens collected. The exact extent of the Chilko mortality is not known but based on the test catches of healthy Chilko fish at Mission it is not believed to be a significant part of the record migration of 39 million fish.

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THREE NATIONS STUDYING NORTH PACIFIC SALMON MIGRATIONS:

One of the greatest cooperative fishery investigations ever attempted is providing answers to questions about the Pacific salmon that have gone unanswered since research into the species began.

Scientists of Canada, the United States, and Japan are now in the seventh year of a program formulated by the International North Pacific Fisheries Commission to find out exactly where the salmon live between the times they leave their native rivers and return there to spawn. The big question is whether salmon from North America intermingle with salmon from Asia and, if so, whether another line than the provisional eastward limit of Japanese salmon fishing at 175° W. could be shown to divide the salmon from the two continents more equitably.

Six full years of detective work have shown that intermingling does take place, but that the salmon don't get lost. Inevitably, when the time comes, the North American salmon head eastward and the Asian salmon westward to spawn in the fresh waters where they originated.

The distribution of salmon throughout the North Pacific Ocean and the Bering Sea is very broad, and the vastness and complexity of this distribution combine to create a gigantic puzzle. However, the scientists have found out that the intermingling in the Aleutian area, for instance, takes place over more than 25 degrees of longitude, with salmon crossing the provisional line in both directions in large numbers.

A comprehensive joint report is expected to be made by the Commission in the next two years.

The methods used by the biologists in tracing the movements of salmon in the high seas are varied. Research vessels fish in many locations and their results, as well as the results of the commercial fisheries, are closely studied to determine the origin of the fish caught. Origins can be traced by the recovery of tagged or fin-clipped fish which have been intercepted on their way to sea, and also by foreign bodies carried by fish, which vary from area to area of the two continents. It has also been discovered that scale patterns on Asian fish differ from those of North American fish. (Canada's Department of Fisheries Trade News, April 1962.)

EUROPECHE

NEW ORGANIZATION MADE UP OF EUROPEAN FISH PRODUCERS' ORGANIZATIONS:

The various professional national organizations of fish producers in the European Economic Community (EEC) have formed an organization named "EUROPECHE." The new organization came into being on May 4, in Brussels, Belgium.

The aims of "EUROPECHE" are: (1) To reach a common viewpoint in connection with the fishery problems resulting from the coming into force of the EEC or from the development of the EEC. (2) To make known to the EEC organizations the Organization's common viewpoints, whether asked for by those organizations or not.

Note: Also see Commercial Fisheries Review, May 1962 p. 52.

EUROPEAN ECONOMIC COMMUNITY

SECOND ACCELERATION IN TIMETABLE FOR ESTABLISHMENT OF CUSTOMS UNION:

The Council of Ministers of the European Economic Community (EEC) on May 14, 1962, approved a second acceleration in the timetable for the establishment of the Community's customs union.

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On July 1, 1962, import duties on products moving in intra-EEC trade will be reduced by another 10 percent for industrial products and by another 5 percent for liberalized agricultural products (those not subject to intra-EEC quotas).

However, duties on non-liberalized agricultural products and on items included in the Common Agricultural Policy for which variable levies will become effective on July 1, 1962, will not be further reduced on that date.

The establishment of a customs union is one of the main objectives of the EEC.

During the transitional period, which is now likely to end earlier than 1970, as provided for in the Rome Treaty, member states are gradually reducing their internal tariffs and are adapting their external tariffs to the rates of the Common External Tariff (CXT).

At the end of this process, each of the member states will levy identical duties on goods imported from non-member countries and will admit goods from other EEC countries free of customs duties.

With this second acceleration, import duties on products moving in intra-EEC trade will have been reduced by a total of 50 percent for industrial products and 35 percent for agricultural products. The next reduction of internal duties is to take place July 1, 1963, and will be an additional 10 percent for all products, bringing the total reduction in internal duties on industrial products to 60 percent.

The Council said the second movement in aligning the external duties toward the CXT is also to be accelerated.

On July 1, 1963--the date when internal duty reductions will reach the 60 percent mark--member states again will adjust their external duties, by 30 percent of the difference between their individual base rates and the CXT.

Originally, this second movement was not to have taken place until December 31, 1965.

The third external adjustment--the final adjustment which will put the CXT rates into full effect--must take place at the end of the third stage of the transitional period, which is likely to end before the date of January 1, 1970, provided in the Rome Treaty. (Foreign Commerce Weekly, May 21, 1962.)

EUROPEAN TRADE FAIRS

UNITED STATES FOOD-PROCESSING INDUSTRY INVITED TO SELL AT TRADE FAIRS:

The United States food-processing industry has been invited to place its products on sale in United States Government food exhibits at leading European trade fairs this year and to join in a program to increase export sales of processed and packaged foods.

The "test-selling" food exhibits, sponsored by the Department of Agriculture, have been successful on an experimental scale in the past two years at food fairs in England, France, and the Federal Republic of Germany.

The first of these fairs to be held this year will be the Manchester Grocers Exhibition at Manchester, England, May 8-19. Others will be at London, England, August 28-September 12; Munich, Germany, September 21-30; and Brussels, Belgium, October 20-November 4.

At the United States Food Fair in Hamburg, Germany, last fall, demand for packaged, precooked, and frozen foods was the heaviest yet experienced.

In addition to a "superette" stocked with American convenience foods, the Hamburg Fair featured commercial exhibits by German firms handling United States products.

These exhibitors estimated that wholesale orders taken at the fair for future delivery amounted to nearly $250,000, and Hamburg merchants plan a follow-up promotion of United States foods this spring.

Participation in the 1962 food exhibits is open to all United States food processors whose products originate in the United States. There will be no charge for display space, but the processor will be responsible for delivery of his products to the exhibit at his own expense.

For the Manchester Grocers Exhibition, the Department of Agriculture is preparing a market promotion exhibit to occupy about 23,000 square feet of floor space, much of which will be devoted to a self-service market where food items furnished by United States processors will be sold.

In addition to the self-service sales area, the exhibit will include displays and kitchen and demonstration areas for major United States agricultural export commodities arranged in cooperation with trade and producer organizations.

The exhibit will also include a trade lounge and a program of promotional events designed to bring together United States businessmen and British food wholesalers, chain store buyers, and other trade representatives.

The Manchester Grocers Exhibition, northern England's top grocery and provision show, is arranged by the trade and brings in distributors and chain store buyers from all over the British Isles.

Manchester is the hub of a metropolitan area containing nearly 2,500,000 people and 750,000 households.

United States food processors can obtain details about the 1962 program by writing to the Grocery Manufacturers of America, Inc., 205 East 42nd Street, New York 17, N.Y., which is coordinating arrangements as a service to the Department of Agriculture. (Foreign Commerce Weekly, U. S. Department of Commerce, April 16, 1962.)

International (Contd.):

OCEANOGRAPHY

INDIAN OCEAN EXPEDITION:

With 18 delegates from six countries in attendance, the First Southeast Regional Conference of the Indian Ocean Oceanographic Expedition convened in Lourenco Marques, Mozambique, April 30-May 3, 1962. The Conference was organized by the Special Committee for Oceanographic Research (SCOR) under the sponsorship of UNESCO and with the cooperation of the International Council of Scientific Unions. Captain (USNR) Robert G. Snider is the Coordinator of the entire Indian Ocean Expedition and was Chairman of the Conference. Other delegates were from Portugal, South Africa, the Malagasy Republic, France, Great Britain, and the United States.

According to Captain Snider, the Indian Ocean Expedition will be an undertaking without precedent in the history of oceanography and will represent the first attempt to study scientifically an ocean in its totality. Its purpose is to obtain new data on the Indian Ocean which will permit more accurate weather forecasting, the charting of more economical navigation routes, the location of specific fishing areas, the compilation of new hydrographic charts, the discovery of additional sea currents, the exploitation of the mineral wealth of the Indian Ocean, and a greater understanding of complex wind patterns. It is hoped that the collected information will lead also to an eventual improvement in the diet and health standards of the various peoples living along the Indian Ocean littoral who together comprise about one-quarter of the world's population. It is expected that the many projects making up the complete Expedition will not be terminated before mid-1965.

For purposes of the Expedition, the area of the Indian Ocean (14 percent of the earth's surface) has been divided into six regional zones. More than 40 hydrographic and other vessels of diverse nationalities will take part in the three-year program. Several hundred scientists from 35 countries will be assigned tasks among the various separate projects and the entire Expedition is expected to cost between $13 and $19 million.

At the Lourenco Marques Conference, an effort was made to coordinate into a common plan the participation of those countries making up or having interests in the Southeastern Zone, i.e. Portugal, South Africa, the Malagasy Republic, Great Britain, and France. The United States will also take part in this Zone's activities. Altogether, 16 vessels will be used to carry out the work of the Expedition in the Southeastern Zone--8 from the United States, 2 from Great Britain, 2 from South Africa, 2 from the Malagasy Republic, 1 from Portugal, and 1 from France. Portugal, through the Mozambique Naval Command, will make available to UNESCO the hydrographic ship Almirante Lacerda which will carry out extensive cruises along the Mozambique and Malagache coasts and throughout the Mozambique Channel as far south as Durban. (United States Consulate, Lourenco-Marques, report of May 1, 1962.)

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LATIN AMERICA OCEANOGRAPHY AND MARINE RESEARCH:

Four important meetings concerning oceanography and marine research development in Latin America were held in Chile the latter part of 1961. They were the Latin-American Seminar of Oceanographic Studies; the 2nd Latin-American Symposium on Plankton; the Meeting of Directors of Latin-American Laboratories; and a Regional Training Course on Marine Biology. The meetings were organized by the UNESCO Science Cooperation Office for Latin America, jointly with the University of Concepcion in the case of the first two meetings and with the University of Chile in the case of the latter two.

A total of 37 Latin-American scientists participated, from Mexico, Colombia, Venezuela, Brazil, Uruguay, Argentina, Chile, Peru, and Ecuador. There was an observer from the National Science Foundation (United States), the Stazione Zoologica di Napoli (Italy), the chief of the Federal Republic of Germany's Technical Assistance Program to Chile.

For the Regional Training Course, the professors were scientists from Mexico, Chile, Uruguay, Argentina, and Brazil, and the students were from Latin-American countries.

The main purpose of the meetings was to make an evaluation of the present status of research in marine sciences in Latin America in the light of what has been accomplished. Accordingly, a series of reports covering the different disciplines of marine science were

International (Contd.):

requested from, and submitted by, leading scientists of Latin America. It was also felt that some decision should be taken so as to increase existing knowledge through research and training, primarily on a cooperative regional basis.

Among the most outstanding resolutions and recommendations adopted were the following.

(1) Creation of a Latin-American Council on Oceanography, with an elected steering committee composed of leading marine scientists from Mexico, Venezuela, Uruguay, Argentina, Chile, and Brazil. This council should become a permanent Latin American Council once the necessary official steps are taken throughout all the Latin-American countries; the secretariat will be located at the UNESCO Science Cooperation Office for Latin America, Montevideo, Uruguay.

(2) Establishment of research programs on a regional, coordinated basis. Seven projects were presented, and necessary measures are now being taken for the coordination of some of these by the existing marine biology laboratories and oceanographic institutes, with the help of the hydrographic naval services.

(3) Publication of a "Latin-American Directory of Oceanographic Institutions and Scientists" so as to implement the exchange of scientists, students, information, and material, with the UNESCO Science Cooperation Office acting as a clearinghouse.

(4) The unification and standardization of methods and equipment in marine research.

(5) Organization by UNESCO, in 1962, of a 2 months' training course in physical oceanography. The Oceanographic Institute of the University of Orente (Venezuela) offered to act as host, and the Brazilian Navy offered its oceanographic vessel, the Almirante Saldanha, for a training cruise to complement the course.

(6) Organization by UNESCO, in 1962, of a regional symposium on the biogeography of marine organisms for the purpose of studying the geographical distribution of such organisms and the effects upon them of the physicochemical condition and dynamics of water masses. The National Museum of Natural History "Bernardino Rivadavia" of Argentina officially offered to act as host upon the occasion of its 160th anniversary.

(7) Organization by UNESCO, in 1962, of a meeting of deans of science faculties of Latin-American universities for the purpose of raising scholastic standards for the education of marine scientists through the reorganization and modification of curricula and plans of study.

UNESCO's Science Cooperation Office is preparing to implement recommendations 5, 6, and 7 by building up the bibliographic reference library on marine sciences in Latin America which it has already started, with profitable results. For this purpose, each scientist present at the meeting planned to send in a contribution in his specific field. To further this program, it is requested that all scientists and institutions send two reprints of any of their publications that deal with any aspect of marine sciences in Latin America to the UNESCO Science Cooperation Office for Latin America, Montevideo, Uruguay. (Science, March 2, 1962.)

INTER-AMERICAN TROPICAL TUNA COMMISSION

MEETING FOR 1962:

The 1962 meeting of the Inter-American Tropical Tuna Commission convened May 16, 1962, in Quito, Ecuador. All member countries (United States, Ecuador, Panama, and Costa Rica) were represented, and observers were present from Japan, El Salvador, Nicaragua, Honduras, Mexico, Guatemala, Chile, and Peru.

The principal business on the agenda was a proposal to conserve stocks of yellowfin tuna by imposing a limitation on the catch. The Commission approved an over-all quota of 83,000 short tons for the calendar year 1962 for the Eastern Pacific area extending off the coast of North and South America between Eureka, Calif., and 30° South latitude. There is a catch quota of 78,000 tons (expected to be reached in September) and an additional 5,000 tons reserved for incidental catch between September and the end of the year.

The 1963 meeting will take place in Colombia (if Colombia joins the Commission) or in San Diego, Calif. A total budget of $624,835 was approved for fiscal year 1963/1964, of which the United States share would be $594,985. (United States Embassy, Quito, May 17, 1962.)

Aden

FISHERIES DEPARTMENT TRYING TO DEVELOP FISHING INDUSTRY:

The plentiful fish in the waters off the Aden Protectorate's coast constitute a commercially-valuable resource which is as yet virtually untapped. The Fisheries Department, which is responsible for teaching new methods and developing the marketing and use of fish products, is rapidly approaching a stage beyond which it cannot proceed without the availability of freezer capacity and assured markets. The improvement of fishing methods, largely through use of nylon nets and purse-seining, are resulting in larger catches for what is now a limited local market.

At present, frozen fish is imported into Aden for the European residents and canned tuna caught some distance off Mukalla by foreign vessels is imported in Mukalla. As a result of this situation, the Fisheries Department is attempting to educate the European market in Aden to the quality of local fish and at the same time to cut, package, and freeze local varieties for sale in Aden and elsewhere.

Under the Protectorate Development Plan, the Cooperative and Marketing Department is planning to build a freezer in Mukalla. Whether this will be of 200- to 500-ton capacity (as a United States representative of a large tuna cannery suggested as a minimum) is not known at this time. Another United States businessman has exported some turtles to Europe, but has not as yet received permission to establish a spiny lobster industry to operate primarily in the Mukalla area.

The Fisheries Department has expanded its operations in the Federation and the Eastern Protectorate with the stationing of an Assistant Fisheries Officer at Mukalla and one at Shuqra in the Federation. During 1961 the Federation received a fishing vessel (The Federal Star) and the officer at Shuqra works closely with the vessel to teach new methods to the local fishermen. The arrival of this vessel has made it possible for the Fisheries Department vessel Gulf Explorer to devote more time to training and research off the Eastern Protectorate.

In a report on the industrial potential of the Colony and Protectorates, fisheries were cited as the most likely area of expansion. To implement the report, the Government has stated that a permanent Working Committee on Fisheries will be established and efforts will be made to persuade London to provide more funds for fisheries development. (May 1 report from Aden.)

Angola

NEW FISHERY ENTERPRISE PLANNED:

The Boletim Oficial of Angola on April 18, 1962, contained a notice of the concession granted to a Metropolitan Portuguese firm. The firm was granted permission to construct a fish-processing plant, operate trawlers, and purchase the catch of other fishing vessels in the Mocamedes area. The firm is to invest 47,000 contos (approximately US$1,645,000) in trawlers and a plant with a daily capacity of 5 to 10 metric tons of frozen fish, 10 to 20 tons of canned fish, and 100 to 150 tons of fish meal. The plant will also have a refrigerated storage capacity of 350 tons. (United States Embassy, Luanda, May 3, 1962.)

Australia

CANNED TUNA IMPORTS:

Australia's imports of canned tuna have increased rather than declined since the import tariff increase of October 1961. Consequently, a continuation of this trend, if accompanied by larger than normal domestic catches, could well lead to additional requests to the Government for protection against imports.

Australia's Canned Tuna Imports by Months, 1961 and January-February 1962

	Lbs.
1961:	
January	60,168
February	20,117
March	43,590
April	56,143
May	38,978
June	99,027
July	47,199
August	56,523
September	21,745
October	57,546
November	35,889
December	114,474
Total 1961	651,399
1962:	
January	85,295
February	1/149,277

1/Preliminary, subject to revision.

On the basis of the Tariff Board Report of September 11, 1961, on "Fish In Airtight Containers," the import duty on canned tuna was increased from 1 pence to 7 pence (0.9 U.S. cent to 6.6 cents) per pound British Preferential tariff and from 3 pence to 9 pence (2.8 cents to 8.4 cents) per pound

Australia (Contd.):

Most Favored Nation tariff. The increased duties went into effect on October 26, 1961, and apply to "tuna, including fish of the suborder Scombroidei, specifically albacore, bluefin tuna, big-eyed tuna, bonito, dogtooth tuna, skipjack or striped tuna, yellowfin tuna."

The Tariff Board report follows the pattern of other reports on requests for tariff increases. These reports weigh both sides of the evidence presented, including the profitability of the industry seeking a tariff increase. In this instance the Board granted an increase, although less than the industry had requested.

A report from Sydney states that as of early 1962 there had been no marked effect so far on the market in Australia for imported tuna, mainly because of the very small catch in New South Wales during the last season. As a result of the short supply domestic producers had encountered no difficulty in disposing of their pack. A large domestic packer was also reported as having stated that his industry was more concerned at the moment with developing standards for packing and labeling than with price competition from imports. Imported Peruvian tuna is the bonito which is reported to be of lower quality as well as lower price than the Australian.

One importing firm in Melbourne reported early this year that imported Peruvian and Japanese tuna was no longer competitive in price. Another attributed the decline in sales of the imported product to the preference for the Australian product because of its higher quality rather than to a price differential. He added that Peruvian and Japanese packers had reduced their prices to offset the tariff increase. (United States Embassy, Canberra, reports of March 26 and 28, 1962.)

Brazil

"MANJUBA" OR ANCHOVY FISHERY OF SOUTHERN BRAZIL:

From October to March, during the Southern Hemisphere spring and summer, the small anadromous "manjuba" or anchovy (Anchoviella hubbsi) swarms from the ocean into the fresh waters of the Ribeira de Iguape River in the southern part of the highly in-

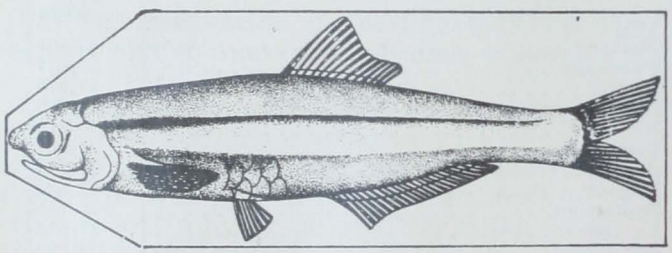


Fig. 1 - "Manjuba" or anchovy, Anchoviella hubbsi Hildebrand, family Engraulidae. Maximum length: 13 cm. (about 5 inches).

dustrialized state of Sao Paulo, Brazil (figs. 1 and 2). In the river, it is fished in quantities up to 1,000 metric tons a month. Fishermen use dugout canoes to set their beach seines. Each seine is over a hundred yards long, up to ten feet in depth, and with a fine mesh. At times there are over 1,000 of the nets in operation.

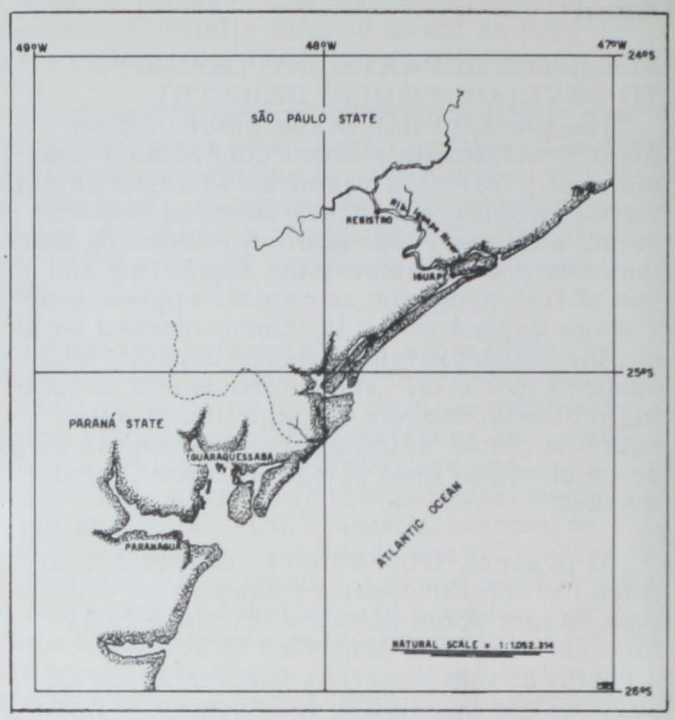


Fig. 2 - Map showing location of the "manjuba" or anchovy fishery (Ribeira de Iguape River). A similar or the same species of fish is caught at Guaraquessaba Bay, along the coast of the State of Parana.

Some of the catch is sent fresh to the city of Sao Paulo, where there is a large Japanese colony, but most of it is salted and dried, to be consumed later by the Japanese colonies in Sao Paulo and neighboring Parana. The salted product is very popular among the Japanese-Brazilians, since it is quite similar to the "iriko" produced in Japan.

Fig. 3 - Fishing for "manjuba" or anchovy with beach seine in Ribeira de Iquape River. Fisherman is hauling in the net.

The fishery was started in 1935 by Japanese tea growers in the area, but now only

Brazil (Contd.):

the commercial aspects are still handled by Japanese and their descendants.

Fig. 4 - State Fish and Game worker ready to interview "manjuba" fisherman at Ribeira de Iguapa River.

Biological research on the species has been carried out since 1960 by Dr. Alvaro da Silva Braga and his coworkers of the "Grupo de Pesquisas sobre a Pesca Maritima do Estado de Sao Paulo" (Sao Paulo State Group on Marine Fisheries Research), whose base is in Santos, an important sea fishing port.

Fig. 5 - Measuring "manjuba" in dugout canoe to collect data for length-frequency studies.

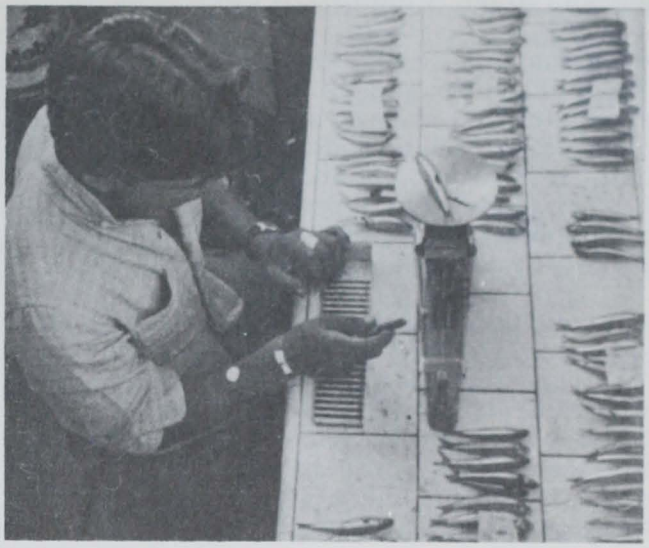


Fig. 6 - Samples of "manjuba" catches from the Ribeira de I Iguape River are analyzed in the laboratory.

Among the problems under study with the assistance of FAO, is the question of whether the "manjuba" really enter the river to spawn, since the eggs have not yet been observed. To help solve this and other aspects of the problem, a small station is maintained at Registro, with two biological assistants who continually collect data on catch, effort, size of fish caught, etc.

--Hitoshi Nomura, Fishery Biologist,
Grupo de Pesquisas sobre a Pesca Maritima,
Santos, State of Sao Paulo, Brazil.

British Guiana

FISHERY TRENDS, 1961:

The fishing fleet engaged in 1961 in coastal, estuarine, and deep-sea fishing consisted of 13 schooners, 34 trawlers, and over 500 smaller vessels, many of which are powered by outboard engines. The smaller vessels operate Chinese and pin seines and carry on line fishing; the schooners are almost entirely engaged in fishing for red snapper. There are approximately 1,200 persons engaged in the industry, and the main fishing methods are: Chinese seine, "cadell," pin seine, snapper fishing, and trawling (fish and shrimp).

Red Snapper
Lutianus blackfordii

Fish is distributed through the Wholesale Fish Market and Centre which is operated by the Government Marketing Division. It pro-

British Guiana (Contd.):

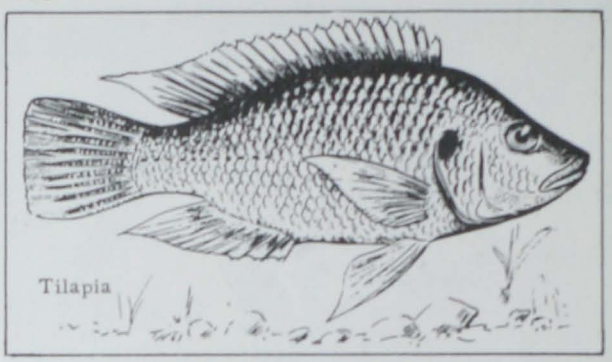
vides wharfage, a tractor for transporting fish, a crane for general use, facilities for preserving and hanging seines, ramp for repairing small boats, grid for repairing large boats, racks for outboard engines, repair shed for engines, water, ice, cold storage, fishermen's rest, canteen, and a covered market for wholesaling the fish.

Recent developments include the use of synthetic fishing nets; introduction of brine-freezing; construction of modern fish shops in rural areas; introduction of all-purpose fishing boats; construction of modern washing tables for use in the wholesale fish market; extraction of shark-liver oil by steam and preparation of shark hides, teeth, and fins for export.

Technical assistance by the U. S. International Cooperation Administration began in March 1960. Among the programs was included the chartering of a local snapper fishing schooner to conduct an intensive fishing operation with proper equipment, including high-speed fishing reels; the organization of a commercial-type fishery training program involving the building or purchasing of a small vessel for administration and training work; the improvement and modification of existing icing, marketing, and transportation facilities; the implementation of intensive inshore trawling and observations with local craft as well as modified local craft, including a program of cooperation with foreign shrimp and fishery firms operating in the country, to obtain information on catches and offshore fisheries; an intensive study of local and foreign private fishery potential and implementation of a program to attract foreign capital as well as local capital for production of fish meal, fresh fish for the local market, as well as fishery products for export; and to conduct a study of fish culture potential in British Guiana.

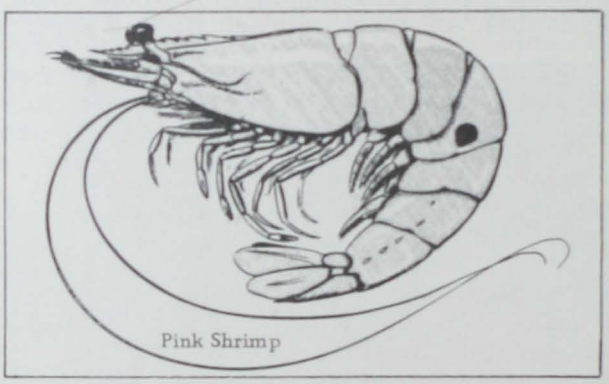
The following projects are now operating: cold storage and refrigeration; local fishing firm engaged in shrimp fishing for export purposes; and local shrimp plant engaged in processing small shrimp in formaldehyde for export (to be used as bait in sport fishing).

The fish culture work in British Guiana has progressed. As of early this year, over 500 ponds, varying in size from 150 square yards to 5 acres, had been established by farmers and various organizations. Most of the ponds were stocked with tilapia distributed from the Departmental Fish Hatchery or from district demonstration ponds and the distribution of a total of 225,000 tilapia had taken place.


Tilapia

A brackish-water Fish Culture Station with approximately 57 acres of pond space has been established at Onverwagt, West Coast Berbice, where research work on all phases of brackish-water fish culture is being carried out.

Investigations which involve the collection of the pre-adult and larval shrimp, their indentification, and the study of their growth have been carried out. Collection of pre-adult forms of about one-inch and their growth to 8 or 9 inches after a period of 7 or 8 months were observed. The shrimp grown in the ponds


Pink Shrimp

have been identified as Penaeid schmitti, and P. aztecus, though specimens of P. braziliensis and P. duorarum have been collected in the intake waters nearby. The availability of larval pre-adult shrimp in the intake waters is considerable and they are particularly numerous in the months of April-June and October-February. Life history and growth rates have been investigated.

Further studies over the systematics of shrimp and their cultivation in brackish-water ponds; seasonal variations in catches from pin seines, Chinese seines, and long lines; and systematic work on the groupers, snappers, and skinfish.

British Guiana (Contd.):

Application has been made to the United Kingdom Pool of Fisheries Scientists for an expert to be made available for a short period to study the effects of shrimp fishing on the local fishing industry.

British West Indies

BARBADOS FISHING INDUSTRY:

The supply of fish in Barbados was considerably less in 1961 than in 1960. The estimated catch during 1961 was 7,420,000 pounds valued at WI$1,751,050 (US$1.0 million). The revised estimate of the 1960 catch was 8,637,000 pounds valued at WI$2,167,800 ($1.3 million).

Catches were normal during the first quarter of the year. During the second quarter, however, when the catch is normally heavy, very few fish were actually caught. It has now been learned that this was due to unfavorable currents which took the flyingfish out of the range of the Island's fishing launches (flyingfish usually comprise 60 percent of the total catch). Few fish were caught during the third quarter of the year which included the hurricane season (July 15 to October 15). Catches for the fourth quarter were normal and the harvest of "sea-eggs" (white sea urchins) was especially good.

During the year, 48 motorized fishing launches were added to the fishing fleet bringing the total to 468. The fleet is now almost completely motor-driven.

The Barbados Government began the construction of a WI$1.5 million ($875,000) abattoir and fish-freezing plant during 1961. The plant, which is situated near the new Deep Water Harbor, is expected to be completed and in operation by the end of 1962. The plant will contain four frozen fish storerooms, two iced fish storerooms, one meat chilling room, one chilled meat storeroom, one ice storeroom, and two fish freezers. The plant will be able to store up to 200 long tons of frozen fish, 60 tons of iced fish, and up to 12 tons of meat. It will also be able to manufacture up to 10 tons of ice per day and will be capable of freezing 4 tons of fish per day. This plant is part of a marketing scheme for fish and will be used to stabilize the fishing industry by providing a guaranteed price for fish, even during periods of oversupply. The fish will be frozen and distributed when the supply of fresh fish is light. (United States Consulate, Barbados, April 30, 1962.)

* * * * *

ST. VINCENT FISHERY LANDINGS, 1961:

Recorded fishery landings for 1961 in St. Vincent amounted to 347,803 pounds with a retail value of $129,349 (US$75,349). The recorded catches were estimated to be between 40 to 50 percent of total landings since for a number of small fishing bays statistics are not collected.

During the year, $9,150 ($5,300) was loaned by the Government to boat owners to assist them in mechanizing their boats. It is hoped that additional loans in 1962 will help to increase the mechanized fleet. Some $11,290 ($6,600) was loaned to Fishermen's Associations or individual fishermen to assist them in acquiring new gear and tackle.

Some 57,700 pounds of gutted, cleaned, and iced fish were transported from the Government Fish Collecting Station on Canouan to Kingstown from August 1961 to the end of the year. This was in addition to the fish sold locally. Due to large catches by St. Vincent boats and beach seines and also to a local prejudice against iced fish, marketing met considerable difficulties in Kingstown in spite of the fact that St. Vincent imports annually about 900,000 pounds of dried salted and canned fish. The imports are equivalent to over 3 million pounds fresh landed weight, compared with local landings of possibly 700,000 pounds of fresh fish.

Note: St. Vincent is part of the Windward Islands in the West Indies.

Canada

NYLON GILL NETS FOR COD FISHING PERFORM WELL:

An experiment in fishing gear that is being watched very closely in Newfoundland and which looks promising involves the use of nylon gill nets for cod fishing.

Introduced in 1961 on an experimental basis by the Newfoundland Department of Fisheries, the nylon gill nets are fast winning the approval of fishermen. Loathe at first to switch from the traditional cotton net, fisher-

Canada (Contd.):

men are becoming convinced of the effectiveness of the synthetic counterpart. In time the nylon variety will be in general use. Many fishermen, using the conventional twine nets who suffered catch failures in 1961, were amazed at the success attained by others fishing the same grounds with the new nylon nets. The results they witnessed were sufficient to "sell them" on the innovation, and this year they too intend to turn to nylon.

In the 1961 experiment the Provincial Department made available to fishermen (on credit) two makes of nylon gill nets; one 27 fathoms, 20 meshes deep, with 7-inch mesh; and the other 50 fathoms, 25 meshes deep, with 7-inch mesh. Both were found to be effective. Prior to that other makes of nets were used, including Canadian nets used extensively and successfully on the Great Lakes. In the demonstration project the Federal Department of Fisheries made available the services of a technician who instructed fishermen in the hanging and fishing techniques. The gill-net instruction courses and fishing demonstrations were carried out in conjunction with provincial authorities, and successful results were achieved in many areas.

Using the synthetic net, fishermen found their work day reduced and maintenance costs of equipment were down appreciably. Leaving port at 5 a.m., a boat using nylon gill nets usually had the catch ashore by 3 or 4 p.m., whereas with trawling the work continues into late at night.

In St. Mary's Bay, on the Southern Shore of the Avalon Peninsula, where the experiment was carried out on a fairly extensive scale, fishermen set 4 to 9 nets in a fleet, depending on depth of water, nature of the bottom, and other factors. The average catch per net was 700 pounds of cod. In one day one fisherman took 8,000 pounds with a fleet of seven nets.

At St. Shotts, fishermen using nylon gill nets made daily landings while those who continued fishing with cotton nets failed to take any fish. It was also discovered that the nylon nets could be hauled in rough weather when trawl fishing was impossible.

Convinced of the merit of the nylon gill net, the Newfoundland Department of Fisheries intends to make more of them available to fishermen this year. (Trade News, April 1962, Canadian Department of Fisheries.)

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GILL-NET INSTRUCTIONS INCLUDED IN PRINCE EDWARD ISLAND FISHERMEN'S COURSES:

As part of its program to promote greater diversification of fishing techniques, the Canadian Department of Fisheries early this year supplied a gill-net instructor for fishermen's courses in Prince Edward Island held by the Province's Department of Fisheries. The instructor, a veteran Great Lakes fisherman, was engaged by the Department on a contract basis. The courses were held in eight different fishing communities.

The instructor taught fishermen the proper way to hang a gill-net, and explained the fundamentals of this fishing method. After a brief description of the method and the theory behind gill-netting, the instructor gave a practical demonstration of how to build a net. Then he "turned the needle over to the fishermen." An experienced gill-net fisherman can hang a net in about an hour and a half, and some of the more adept pupils were rapidly gaining sufficient skill to meet this mark.

Graduates of the net and gear course prepare to test their skills.

Line, webbing, corks, leads, and other materials necessary to build a gill net cost the fisherman about C$28. The boats used by many of the Province's lobster fishermen are approximately 40 feet in length, and these can be readily adapted for gill-netting. (Canadian Department of Fisheries Trade News, April 1962.)

The attendance at the various courses was gratifying, and although younger fishermen were in the majority, several veteran fishermen expressed keen interest in gill-netting.

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Canada (Contd.):

GOVERNMENT SUPPLIES BAIT-HOLDING UNITS FOR NEWFOUNDLAND:

Eight additional bait-holding units were expected to be delivered this spring for erection in Newfoundland fishing settlements. These new units will bring to 45 the total number of distribution points being served by the Newfoundland Bait Service operated by the Federal Department of Fisheries. When the Bait Service was transferred to the Federal Government in 1949, 20 depots were in operation. However, three of the older depots have been replaced by the new units. During the last four years, 28 additional units have been erected as a means of extending the service to areas where bait was not available from private or public sources.

New refrigerated truck, which will operate out of Port aux Choix, will service bait holding units on the northwest coast of Newfoundland. Truck has a maximum load capacity of 14,700 pounds of bait.

These bait holding units which have been introduced during the last four years are capable of holding 15,000 pounds of bait and have given very satisfactory service. The units have made possible extension of the fishing season in many areas where the lack of bait had previously restricted fishing operations particularly in the early spring and again in the fall following the trap fishery. In order to keep these units supplied with frozen bait, the Department purchased two refrigerated trucks in 1959 and this year a third unit has been added.

A 164-foot vessel to replace the Bait Service Vessel Arctica is expected to be available for service in 1963. She will be capable of both freezing and holding bait and will have a capacity of approximately 400,000 pounds. The bait service vessel is used to transfer frozen bait from areas of surplus to areas in short supply. (Canadian Department of Fisheries Trade News, April 1962.)

Colombia

LICENSES FOR UNITED STATES COMMERCIAL FISHING VESSELS:

As a result of negotiations conducted by the General Manager of the American Tunaboat Association with Colombian authorities in April 1962, there has been established a procedure for United States fishing vessels to obtain licenses to fish in Colombian waters. Also, arrangements have been made for United States vessels to sell part of their catch to Colombian canners and fish merchants.

The procedure for fishermen wishing to secure licenses is new. Hitherto, only a few licenses had been granted, each application being individually considered and resolved on its particular merits. A law governing the matter and regulations thereunder have been in force for some time. However, due to some unsatisfactory experiences in the past plus the limited number of applications received, the Colombian authorities had not been prompted until now to set up a regular licensing system.

The procedure for vessels to secure fishing rights will include these steps:

1. Obtain a matricula (Registro de Embarcaciones Pesqueras) valid for 12 months and issued by the Director of Fisheries (Jefe de la Direccion de Caza y Pesca) upon payment of US$300. To secure the matricula, the applicant must submit the following documents:

a. A formal application (in Spanish) written on "papel timbrado" (easily obtained in any Colombian city).

b. A completed matricula form (No. P.M. 500, "Registro de Embarcaciones Pesqueras").

c. A copy (photostat) of the Ship's Document issued by the U. S. Bureau of Customs.

These documents must be presented to the Director of Fisheries in Bogota; they cannot be accepted by Colombian consular officers abroad. However, a duly empowered agent of the interested vessel in Colombia may present them and obtain the matricula. The General Manager of the United States Association has appointed an agent in Buenaventura for the Association. He is an American citizen engaged in the fishing business in that port.

2. Obtain a fishing license issued by the Director of Fisheries upon payment of a fee of $6.00 per net registered ton for vessels fishing off the Pacific coast or $8.00 per net registered ton for those fishing off the Atlantic coast. The license is valid for 100 days.

Colombia (Contd.):

In the case of American Tunaboat Association vessels fishing in South American waters, the General Manager stated that they would obtain matriculas each year whether or not they fished in Colombian waters. In the event that the movement of fish brought them to Colombian waters, they would communicate with the Association's agent who would secure a license; they would then put in to pick it up.

During his talks, the General Manager of the Association gave assurances that vessels of his Association would deliver a certain part of their catch to Colombia fish canners and merchants. Specifically, he said the delivery would consist mainly of red snapper, white fish, and undersized tuna. He stressed, however, that a reasonable price must be paid for these fish if United States vessels were to be encouraged to catch them. He said that a scale of prices suggested by a Colombian buyer seemed attractive. The proposed prices are as follows: red snapper US$200 per metric ton (9.1 cents a pound); white fish $190 a ton (8.6 cents a pound); undersized tuna $140 a ton (6.4 cents a pound).

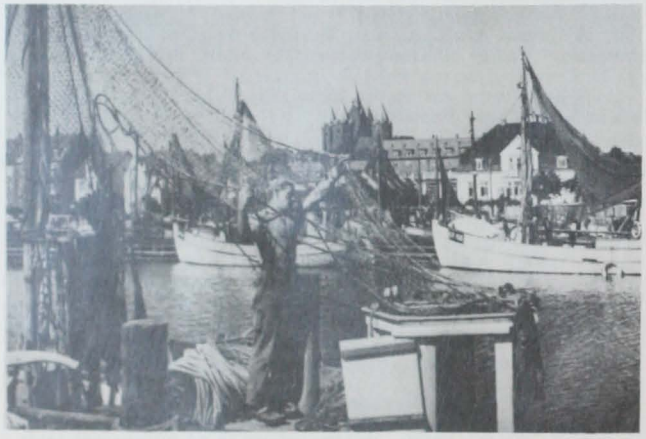
The foregoing procedures and arrangements represent a constructive step which should reduce, if not eliminate, problems such as those surrounding the recent detention of a United States tuna vessel off Buenaventura. (United States Embassy, Bogota, report of May 4, 1962.)

Denmark

FISH FILLETS AND BLOCKS AND FISHERY INDUSTRIAL PRODUCTS EXPORTS, MARCH 1962:

Denmark's exports of fresh and frozen fillets and blocks during the first three months of this year were 18.1 percent or almost 3.5 million pounds greater than in the same period of 1961. The exports of cod and related species dropped 6.3 percent, but flounder and sole fillets were up 15.9 percent and herring fillets were up 129.2 percent. During the first three months this year exports to the United States of fresh and frozen fillets and blocks of 3.4 million pounds (mostly cod and related species) were down 22.7 percent from the exports of almost 4.4 million pounds in the same period of 1961.

Denmark's exports of fresh and frozen fish fillets and blocks during March 1962 were up 30.5 percent or almost 2.4 million pounds. Of the total exports, 1.8 million pounds (mostly cod and related species) were shipped to the United States in March.



Fishing cutters in the harbor of the port of Kalundborg, one of the smaller Danish fishing ports.

Denmark's Exports of Fresh and Frozen Fish Fillets and Blocks and Fishery Industrial Products, March 1962 1/

Product	March		Jan.-Mar.	
	1962	1961	1962	1961
	(1,000 Lbs.)			
Fillets and Blocks:				
Cod and related species	5,213	4,956	10,598	11,312
Flounder and sole	1,988	1,739	5,475	4,722
Herring	2,835	912	6,359	2,774
Other	27	102	114	238
Total	10,063	7,709	22,546	19,096
	(Short Tons)			
Industrial Products:				
Fish meal, fish solubles, and similar products	7,242	4,741	14,074	9,923

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

Denmark's exports of fish meal, fish solubles, and similar products in January-March 1962 were up 41.8 percent or 4,151 tons from the same three months a year earlier.

During March 1962, Denmark exported 52.8 percent or 2,501 tons more meal, fish solubles, and similar products than in the same month of 1961. The principal buyers were the United Kingdom West Germany, and the Netherlands.

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FOURTH INTERNATIONAL FISHERIES TRADE FAIR:

The Fourth International Fisheries Trade Fair was held in Copenhagen, Denmark, from April 14 to 23, 1962. It attracted 55,000 visitors from 39 countries. There were displays by 230 exhibitors from 14 countries. Most of the products were marine engines, vessel equipment, and twine for fishing gear. Exhibits of fish processing equipment were less numerous than might have been expected. Half of the exhibitors were Danish but there also was substantial representation from the United Kingdom, West Germany, Norway, Sweden, and Japan. Six United States companies were represented, mostly through European affiliates or agents. The estimated sales turnover, based on interviews with 25 percent of the exhibitors by the arrangers, was about US$30 million. The Fifth International Fisheries Trade Fair is tentatively scheduled for Copenhagen in 1965 and 65 percent of the exhibit area already has been booked.

The opening speech by the Danish Minister of Fisheries stressed the importance of such fairs to international trade and cooperation. The spokesman for the Danish Fisheries Council (an organization representing the various Danish fisheries associations) said that Denmark's application to join the Common Market was something which the greater part of the industry believed would be of great advantage provided, of course, that the United Kingdom, one of Denmark's biggest fish customers, also became a member. He hoped that Denmark's fishery exports to the East Bloc countries could be maintained and, preferably, expanded. But, despite Danish exports to 100 countries, he was concerned because export prices were practically the same as in 1960 and did not cover significant increases in costs in 1961 and 1962.

Unless export prices increased, difficulties were foreseen because the fishing industry had done everything possible to bring its costs down through modernization. Participation in international fairs had been successful in promoting Danish fish and fishery products but there was a need for expansion both in domestic and foreign markets, preferably through diversion of a portion of the tax on exported fishery products. (Regional Fisheries Attache, United States Embassy, Copenhagen, May 8, 1962.)

Dominica

TUNA FISHING SEASON:

Off the island of Dominica (part of the West Indies Leeward Islands), the yellowfin tuna (locally called "albacore") fishing season, which usually lasts from May to July, started unusually early this year. Tuna averaging 70 pounds each began to be caught in December 1961, and by the end of January 1962 almost 100 fish had been landed, an all-time record for that time of year for the Island.

Ecuador

PROPOSED DECREE WOULD RESTRICT FISHING BY TUNA PURSE SEINERS OFF COAST:

A decree proposed by the Ministry of Development would restrict purse seiners from fishing for tuna within 40 miles of the Ecuadoran coast between the Santa Elena Peninsula and Cabo Pasado. This action was proposed after a Government study mission returned from its investigation in Manta of complaints by fishermen that United States vessels were engaged in tuna fishing in Ecuadoran waters. (United States Embassy, Quito, report of May 4, 1962.)

Faroe Islands

BRITISH READY TO DISCUSS FISHING LIMITS WITH DANES:

The British Government has told Denmark that it is ready to discuss with them the question of fishing limits off the Faroe Islands. A British Foreign Office statement said that an aide-memoire setting out the Government's views and indicating its willingness to discuss the question was handed to the Danish Charge d'Affaires in London.

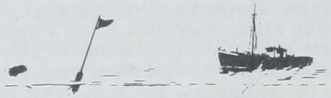
This follows a Danish aide-memoire in February 1962 concerning the future of the Anglo-Danish Agreement of 1959, under which British vessels fish in waters adjacent to the Faroes.

Under the 1959 agreement, the British Government agreed to a six-mile limit off the coast in certain areas. The agreement provides for either government to give a year's notice of termination at any time after April 27, 1962.

The Faroese local governments have been pressing the Danish Government for some time to apply to British vessels the 12-mile fishery limit which already applies to vessels of other nationalities fishing off the Faroe Islands. (The Fishing News, April 27, 1962.)

The Danish Ministry of Foreign Affairs gave notice to the United Kingdom on April 28, 1962, of termination of the 1959 agreement on fishing limits in the Faroes. In accordance with the one year's notice provided for in the agreement, it will end on April 27, 1963.

Fishing limits of 12 miles have been recognized by the United Kingdom in Iceland and Norway.



Fiji Islands

FINAL ARRANGEMENTS FOR PROPOSED TUNA BASE:

The Japanese Diet Member who initiated the plan to establish a joint tuna base in the Fiji Islands left Japan on April 26, 1962, for the Fiji Islands to make final arrangements with the Fijian authorities to carry out his plan. In Japan, preparations for this joint venture are reported to be well under way and the application to establish this joint company was expected to be filed with the Fisheries Agency upon return to Japan of the Diet Member.

Under the present plan, Japan and Great Britain (Fiji Islands are a British possession) will each contribute 50 percent of the investment, or the equivalent of 150 million yen (US$416,670) each. Of Japan's share of the investment, two Japanese companies are jointly investing a total of 65 million yen ($180,556), a Japanese trading company is investing 65 million yen ($180,556), and the South Pacific Ocean Fisheries Cooperative Association 20 million yen ($55,556). As for investment by the Fijian side, stocks are being offered for public subscription and already 2 or 3 investors reportedly will participate in the venture. (Suisan Keizai Shimbun, April 24, 1962.)

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Fiji Islands (Contd.):

CONSTRUCTION OF TUNA BASE:

The proposed establishment of a joint Japanese-British tuna base in the Fiji Islands, an enterprise to be managed by the South Pacific Ocean Fisheries Cooperative Association, has progressed to the stage where the base construction at Levuka was scheduled to commence on June 1, 1962. The Japanese Diet member who initiated the plan returned to Japan on May 8 from his fourth trip to the Fiji Islands. He explained the present status and prospects of the joint venture as follows:

1. Purpose of the recent trip was to make arrangements for constructing freezing facilities. The touring party included a Japanese engineer from the firm which is to handle freezer construction. Blueprints for the freezer plant have already been drawn and construction was scheduled to begin on June 1.

2. Initially, a freezer plant with a freezing capacity of 100 metric tons and a storage capacity of 2,000 tons will be built at a cost of about 500 million yen (US$1.4 million). Construction is expected to take 10 months. Present plans call for increasing the freezing capacity by 50 tons and storage capacity by 1,000 tons next year.

3. Construction of the base was expected to start as soon as the Fijian Government approved the undertaking. Since this enterprise will contribute to the industrial growth of the Fiji Islands, the Fijian Government is showing a very cooperative attitude, having already drafted a law which would place this base in the category of protected industries. Only the provision relating to the method of determining ex-vessel fish prices remains to be included in the law. The director of the development program for the Fiji Islands was in Japan to discuss the method of determining tuna ex-vessel prices, and a general agreement has already been reached on this matter. Before returning to the Fiji Islands, the Fijian director was to study the Japanese housing loan procedures since the Japanese have asked the British bank in the Fiji Islands to extend a 200-million-yen (US$.6 million) loan for the construction of houses for the 2,000 Japanese to be assigned to the base.

4. A total of 100 Japanese fishing vessels (each of 99 gross tons) will be assigned to the Fiji Islands tuna base over a period of four years. During the first year, 30 vessels will be sent, of which 25 will be fishing vessels and 5 training vessels. Orders for these vessels have already been placed with a Japanese shipbuilding firm. Each vessel is expected to cost around 46.9 million yen (US$130,000). Tuna landed by the vessels will be delivered to the local processing plant, where they will be frozen or canned for export to the United States. The processing plant will be jointly established with Japanese and British capital.

5. Approval for entry of Japanese families into the Fiji Islands has been obtained from the Fijian Government. The Fiji Government will grant 8-year residence permits to Japanese residing on the base, instead of 4-year permits as agreed upon originally. (Suisan Keizai Shimbun & Suisan Tsushin, May 16, 1962.)

One of the provisions in the drafted Fijian law reads: "The company which has been licensed will construct at Levuka, Fiji Islands, cold-storage and canning facilities fully capable of processing and handling the catch of the fishing fleet to be composed of at least 30 vessels." The Fisheries Agency reportedly is faced with a dilemma, for the Agency has already taken the position that it will not authorize the construction of canning plants overseas, and the Agency is reported to be reviewing this matter carefully.

France

TUNA INDUSTRY, 1961:

Production of tuna in French waters declined again in 1961, amounting to only 16,600 metric tons as compared with 17,900 in 1960 and 22,500 tons in 1959, well below the needs of the market. In addition, 5,600 tons of yellowfin tuna (including a very small quantity of "Listao") fished by French vessels in African waters were landed in French ports.

The 1960/61 winter African season was a disappointing one for French fishermen. On the one hand they had to go much farther south from Dakar to find the yellowfin tuna and on the other hand the outlets for canned tuna processed in Dakar were much smaller than had been originally expected. Only the technically more modern vessels equipped with freezing units found the season in Africa really profitable. The Senegal canning plants have a considerable amount of idle capacity and must rely principally on the protected French market where the level of tuna prices is higher than it is in other countries. An estimated 13,000 tons of tuna were reported produced during the calendar year 1961 by French vessels fishing in Africa. Of that amount, 5,600 tons were shipped to France as frozen tuna and the rest was canned in Senegal (4,160 tons of the Senegal canned pack was shipped to France).

The program set up by the French Authorities before the 1961/62 campaign in Africa started called for a total production of 22,000 tons, of which 10,000 tons were to be shipped frozen to France for the French canneries. As the French canneries were running short of tuna at the beginning of April 1962, the French Government took an exceptional decision to allow the import of 6,000 tons of raw tuna, 3,500 tons of which are destined for canneries located in France and 2,500 tons for Dakar canneries for subsequent export after processing to France. (United States Embassy, Paris, report of May 3, 1962.)

Note: See Commercial Fisheries Review, April 1962 p. 60, October 1961 p. 50.

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FROZEN TUNA IMPORTS AUTHORIZED:

France is reported to be planning on importing 5,500 metric tons of frozen tuna this year and is said to have already issued import licenses for 3,500 metric tons of frozen tuna. Until recently, France has been restricting imports of tuna, except from countries that once were part of her overseas territories, like Senegal. This recent turn of events is attributed to poor fishing by French fishermen, as well as by fishermen in those countries which normally provide tuna for the French market.

France (Contd.):

Japanese tuna export firms have approached France with offers of frozen tuna, but as of mid-May, only one firm is reported to have been successful in concluding an agreement to deliver about 200 metric tons of tuna at $360 a ton, delivery Nantes. Since tuna fishing in the Atlantic Ocean has not been very good and since many of the Japanese export firms already have commitments to deliver tuna to Italy and Yugoslavia, French firms are not expected to be able to procure, until sometime after summer, the 3,500 tons of frozen tuna authorized for import into France.

The 3,500 tons of tuna to be imported by France is expected to come under the Common Market duty-free tuna import quota of 25,000 metric tons, but details are not available. (Suisan Tsushin, May 15, 1962.)

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FISHERY TRENDS, FIRST QUARTER 1962:

Unfavorable weather conditions resulted in a serious drop in French fishery production during the first quarter of 1962. Mackerel and tuna landings were particularly light and the French canners' association is pressing the Government for an exceptional import quota for raw tuna so that a reasonable packing level can be maintained. The Government has given its agreement in principle for such a quota, but hopes to work out a barter arrangement, perhaps with the Japanese, so that French salted cod can be exchanged for the imported raw tuna. (United States Embassy, Paris, May 3, 1962.)

German Federal Republic

FISHING TRAWLERS RECRUITING MEN IN IRELAND:

Early in May 1962 advertisements appeared in Irish newspapers seeking men willing to join the crews of West German fishing trawlers.

On May 17, in Cork City, the agent of Nordsee, a German deep-sea trawling firm of Bremerhaven and Cuxhaven, interviewed men who were willing to train for work aboard the vessel. He stated that the firm needed from 50 to 60 men from Ireland to supplement the German fishing fleet which is experiencing a shortage of manpower. The men will be trained as deck hands and they will be paid in accordance with the German collective wage agreement now in effect for crews of German deep-sea fishing vessels--the basic wage is said to be 255 deutschemark (US$63.83) per month. In addition, the men will receive a share of the returns from the catch. The trawlers are used also as factory-ships for processing salt fish. They usually have a crew of 31 men.

Interview of applicants was expected to take place also at Waterford, Dublin, and Donegal, Ireland. (United States Consulate, Cork, May 8, 1962.)

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PLASTIC CONTAINERS FOR UNLOADING FISH AT DOCKSIDE:

More than 2 years of experience has now been accumulated on the plastic fish containers used to unload fish in Bremerhaven (West Germany) fish market. During that time, it is estimated that each container, each day, has been dropped 100 times from 20 feet beside being manhandled round the market and back on the vessel. Despite this, the 600 containers which formed the initial order are still in good condition.

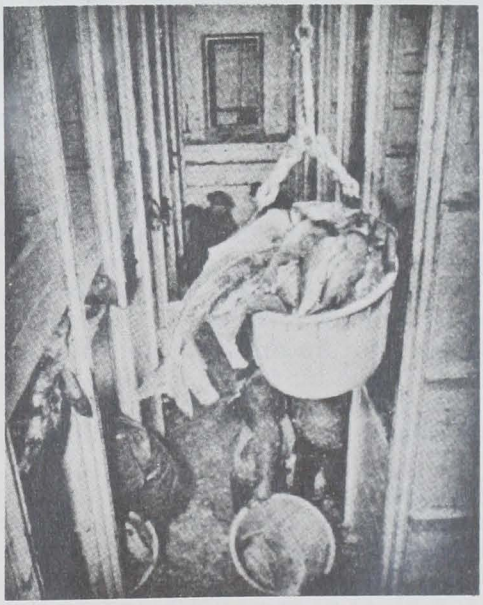

Fig. 1 - Plastic fish baskets or tubs are hauled on deck from the hold at a rate of 10 feet per second.

The containers will hold 150-170 pounds of fish. They are tub shaped, and have a pair of colored plastic handles. This offers a number of advantages, since they serve both as a basket for unloading and a container on the

German Federal Republic (Contd.):

market floor. The strength of the handles is such that they will withstand the sudden snatch of the winch when hauling from the fish hold and they do not break or dent when dropped or are generally misused. Furthermore, they are easily cleaned by a jet of cold water, and they do not retain bacteria.

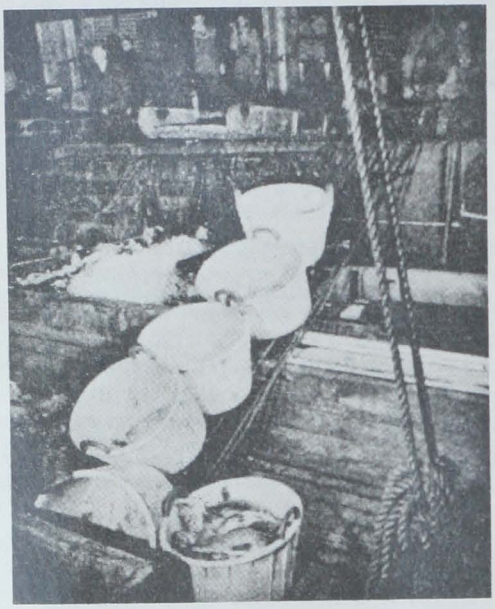

Fig. 2 - Plastic baskets come out of the auction hall in the Bremerhaven market and return to the trawler's deck via a chute.

In practice, further advantages have been found. A normal basket must inevitably increase in weight through water absorption, and this means an additional 5-9 pounds which has to be handled. When the basket is used for weighing, the tare weight must be rechecked to allow for this. The plastic tubs in use at Bremerhaven weigh 10 pounds and they will nest within one another, making transport by hand or truck simple. Tests have shown that strength is unaffected at temperatures of minus 22° F.

The material from which they are "injection-moulded" is a low pressure polythene. The Bremerhaven tub costs about US$7.00 each. (World Fishing, May 1962.)

Ghana

JAPANESE TUNA VESSELS DISPATCHED TO GHANA:

A Japanese fishing company is reported to have dispatched to Ghana the 239-ton vessels Kuroshio Maru Nos. 70 and 71 for the purpose of conducting pole-and-line fishing. The firm is reported to be constructing three additional vessels of the same size, which are also scheduled to be based at Ghana. (Shin Suisan Shimbun Sokuho, May 8, 1962.)

Greenland

SHRIMP CANNING AND EXPORTS:

Greenland's production and export of canned tiny shrimp is controlled by the Royal Greenland Trade Department (RGTD), Copenhagen. Distribution in the United States is through a New York City fishery firm. The following information was obtained from RGTD and the President of the New York firm.

Data on Greenland's Pack of Canned Shrimp--Can Sizes, Types of Pack, Etc.

Item	1/4-Lb. Round	1/2-Lb. Tuna	Flat Glass
Net weight	4-1/4 oz.	7-3/4 oz.	4-1/4 oz.
Drained weight	2-1/2 oz.	4-1/2 oz.	2-3/4 oz.
Pack	Wet	Wet	Wet
Sugar	x	-	x
Salt	x	x	x
Citric Acid	x	x	x
Monosodium glutamate	x	x	-
Peeling	Machine	Machine	Hand
Fill	Throw	Throw	Hand
Label type	Litho.	Paper	Litho. top
Interior enamel	White	Regular	-

The 4-1/4-oz. net weight (1/4-lb. round) cans are now shipped 48 to the fiberboard carton. Formerly they were shipped 100 to a wooden box. The 7-3/4 oz. net weight (1/2-lb. tuna) cans are shipped 24 cans to a fiberboard carton. The 4-1/4-oz. net weight glass containers are shipped 12 to a corrugated carton with individual jars separated by corrugated paper. Four cartons are shipped to a master carton.

The canned shrimp are shipped to Boston and New York City by direct shipment or via Copenhagen, Denmark.

Prices to United States buyers were aimed at establishing retail prices of 33 cents and 43 cents per can for the 4-1/4-oz. and 7-3/4-oz. sizes, respectively.

The raw shrimp used were said to run 200 to 300 per kilo or 91 to 137 per pound. The 1961 pack is sold out; the 1962 canning season as of May 10 had just begun. (Regional Fisheries Attache, United States Embassy, Copenhagen, May 10, 1962.)

Guatemala

SHRIMP FISHING EXPANDING AT PACIFIC COAST PORTS:

Shrimp fishing from Guatemala's Pacific Coast ports of San Jose and Champerico increased during the early part of 1962. In October 1961 there were only 10 vessels evenly divided between the two ports. As of early April 1962, however, there were about 25 ves-

Guatemala (Contd.):

sels operating out of each port. Also, there is a freezing plant at each port. Moreover, several of the five companies operating on the Pacific have indicated they plan to put additional boats into use.

During calendar year 1961 Guatemala exported only US$210,000 worth of shrimp, but it is expected that, with the increased number of boats in operation, total exports of shrimp could well exceed $2 million in 1962. In addition to the fishing activity on the Pacific Coast, one small company has operated a fishing enterprise out of Guatemala's Gulf Coast port of Matias de Galvez for some time.

During the first four months of this year, fishing activity from the port of San Jose has increased. Although the shrimp industry at San Jose has probably not given employment to more than 175 Guatemalans, it has instilled a great deal more life into that port.

One of the most promising developments in the San Jose area is the experiment of one shrimp firm in bringing its vessels across a sand bar and into the protected Chiquimulilla Canal, where docking facilities have been constructed near the company's freezing plant. If this proves practical, it will be of great benefit to the shrimp industry on the Pacific Coast.

The large amount of fish which has become available as a byproduct of shrimp fishing is having an effect on price of fish in Guatemalan markets. One shrimp company recently advertised fish at a retail price as low as 18 cents a pound whereas formerly such fish would have cost 2 or 3 times as much. The market for fish in Guatemala presently is not very large, but low prices should help develop the market. (United States Embassy, Guatemala, April 13, 1962.)

Guinea

FISHERY TRENDS:

The Government of Guinea has established the state company SOGUIPOL to run the state fishing fleet of eight vessels, to purchase the catch from independent fishermen, and to organize distribution and retail sales. The fleet is announced to have a weekly catch capacity of 400 metric tons which, if completely realized, would reach the target figure of 22,000 tons per year established in the Three Year Plan.

West German experts are operating a fish smoking plant, and a cold-storage plant is under construction for handling 100 tons of fish. The Poles are operating six trawlers and training crews in modern fishing practices. (United States Embassy, Conakry, April 24, 1962.)

Honduras

SHRIMP LANDINGS DECLINE IN 1961:

Shrimp landings in Honduras in 1961 totaled only 213,400 pounds. This was less than half of the previous year's catch and far short of the peak 1958 production of 908,600 pounds. But in 1961 a greater amount of shrimp was probably caught than is indicated by the official statistics, since according to Honduran officials the statistical system is inadequate at present.

Nevertheless, there has been a sharp downward trend in shrimp fishing activity in Honduras apparently stemming from certain provisions of the 1959 Fishing Law discouraging to foreign operators. An FAO fisheries advisor recently estimated that Honduran waters off the north coast could support a potential shrimp harvest of 2 or 3 million pounds per year. (United States Embassy, Tegucigalpa, report of May 17, 1962.)

Iceland

FISHERIES TRENDS, APRIL 1962:

Trawler Tie-Up: As of early May 1962, two State mediators had offered proposals for settling the nearly two-months old trawler strike. The proposals involved a 13-percent wage increase in fixed wages for seamen as well as an adjustment in their share of the catch. The Seamen's Union was expected to complete a general vote by May 7, but it was considered unlikely that they would accept the proposed terms. The strike began on March 10.

Herring Exports to Norway for Reduction: Very large herring catches off the South Coast

Iceland (Contd.):

early this year resulted in the exportation to Norway of fresh herring for reduction. This unusual arrangement aroused some criticism in Iceland because herring reduction plants on the North Coast remained idle because of lack of fish. High transportation costs to the North Coast plants is the reason advanced by the herring production management.

Frozen Fish Exporters Receive Additional Credits from United States Bank: The First National City Bank of New York has agreed to extend a US$4 million loan to finance exports of frozen fish of the Freezing Plants Corporation (FPC) and the Federation of Icelandic Cooperatives (Samband). The loan, which was previously for $1.5 million, is guaranteed in part by the Eximbank and will be made to the National Bank of Iceland, which will reloan approximately 75 percent of the money to the FPC and 25 percent to Samband. (United States Embassy, Reykjavik, report of May 3, 1962.)

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EXPORTS OF FISHERY PRODUCTS, 1960-61:

There was a considerable decrease in exports of frozen fish, cold liver oil, herring oil, whale oil, and ocean perch meal during 1961 from 1960, according to the Statistical Bureau of Iceland's Statistical Bulletin, January 1962. But exports of salted fish, stockfish, fish on ice, cured and frozen herring, fish meal, and herring meal were considerably higher in 1961.

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EXPORTS OF SELECTED FISHERY PRODUCTS, JANUARY-FEBRUARY 1962:

Exports of Iceland's most important commodities for January-February 1962 include several fishery items of interest to the United States fisheries. There was a considerable increase in exports of herring meal and

Selected Icelandic Fishery Exports, January-February 1962

Product	Jan.-Feb. 1962		Jan.-Feb. 1961	
	Quantity	Value 1/	Quantity	Value 1/
	Metric Tons	US$1,000 f.o.b.	Metric Tons	US$1,000 f.o.b.
Salt herring	8,844	1,921	2,555	474
Salt fish	2,249	778	3,114	1,074
Stockfish	1,719	1,034	1,913	1,031
Herring on ice	4,306	357	2,303	158
Other fish on ice	7,478	867	5,315	428
Frozen fish fillets	5,829	2,202	6,620	2,364
Shrimp & lobster, frozen	32	71	55	79
Herring, frozen	5,300	652	4,287	496
Herring, oil	7,376	763	3,728	460
Fish meal	1,932	269	10,503	921
Herring meal	13,196	1,899	6,276	571
Ocean perch meal	-	-	1,084	81

1/Value converted from Icelandic kronur at rate of 1 kronur equals 2.32 U. S. cents.

Icelandic Fishery Exports, 1960-61

Product	1961			1960		
	Qty.	Value (f.o.b.)		Qty.	Value (f.o.b.)	
	Metric Tons	1,000 kr.	US$ 1,000	Metric Tons	1,000 kr.	US$ 1,000
Salted fish, dried	4,646	88,463	2,176	4,435	66,490	1,742
Salted fish, uncured	29,109	297,328	7,314	22,829	208,931	5,474
Wings, salted	1,324	12,313	303	631	4,346	114
Stockfish	10,674	258,751	6,365	7,434	151,878	3,979
Fish on ice	39,554	194,002	4,772	27,975	107,285	2,811
Frozen fish	44,599	694,012	17,073	64,428	797,805	20,902
Shrimp & lobster, frozen	507	41,663	1,025	484	35,209	922
Roes, frozen	607	8,472	208	721	8,977	235
Canned fish	373	22,336	549	258	15,724	412
Cod-liver oil	5,746	46,094	1,134	10,037	65,515	1,716
Roes, salted	3,082	34,839	857	2,738	28,179	738
Roes for bait, salted	1,348	8,131	200	2,259	11,990	314
Herring, cured	33,738	329,044	8,094	19,025	135,363	3,547
Herring, frozen	14,456	69,695	1,714	7,249	23,335	611
Herring oil	25,000	132,479	3,259	36,225	170,132	4,457
Ocean perch oil	981	4,919	121	2,434	14,490	380
Whale oil	1,540	11,800	290	4,423	24,957	654
Fish meal	28,693	119,105	2,930	19,223	69,219	1,814
Herring meal	36,873	203,581	5,008	23,440	90,682	2,376
Ocean perch meal	3,735	17,003	418	11,777	39,830	1,044
Whale meal	1,493	5,769	142	-	-	-
Whale meat	1,620	11,631	286	1,521	9,892	259

Note: Values converted at rate of 1 kronur equals 2.46 U.S. cents in 1961; and 2.62 U.S. cents in 1960.

Iceland (Contd.):

salt herring as compared with January-February 1961 (see table), according to the National Bank of Iceland's March 1962 Statistical Bulletin. Exports of fish meal were very much lower.

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EXPORTS OF FISHERY PRODUCTS, JANUARY-MARCH 1962:

There was a considerable increase in exports of salted herring, herring oil, and herring meal during the first quarter of 1962 as compared with the same period in 1961, according to the Statistical Bureau of Iceland's Statistical Bulletin, April 1962. But exports of fish meal and ocean perch meal were considerably lower in the first quarter of 1962.

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HERRING SEASON GOOD:

One newspaper described this winter's herring season (October 1961-April 1962) in Iceland with 1.2 million barrels landed as the best since 1947. A far higher amount than usual has been frozen for export--18,000 metric tons, of which the U.S.S.R. bought 5,000 tons, East Germany 2,571 tons, Poland 2,500 tons, Czechoslovakia 1,500 tons, Rumania 1,500 tons, and Great Britain 157 tons.

The latest innovation is the shipment of 5,000 tons of herring under chemical preservatives to oil and meal plants in Norway. However, one small Norwegian freighter loaded with herring had to put back into an Icelandic port because the cargo shifted. Another with the same problem and listing dangerously sent out an S O S. After disembarking the crew, an Icelandic Coast Guard vessel towed the freighter into port. (United States Embassy, Reykjavik, May 17, 1962.)

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Icelandic Fishery Exports, January-March 1962 with Comparisons

Product	Jan.-Mar. 1962			Jan.-Mar. 1961		
	Qty.	Value f.o.b.		Qty.	Value f.o.b.	
	Metric Tons	1,000 kr.	US$ 1,000	Metric Tons	1,000 kr.	US$ 1,000
Salted fish, dried	934	18,318	425	1,752	33,095	867
Salted fish, uncured	3,664	45,402	1,053	2,477	24,971	654
Wings, salted	158	1,856	43	175	1,718	45
Stockfish	2,881	74,379	1,726	3,232	74,711	1,957
Herring on ice	4,742	16,499	383	2,327	6,869	180
Other fish on ice	11,554	53,159	1,233	8,094	28,305	742
Herring, frozen	9,488	48,026	1,114	5,592	27,959	733
Other frozen fish, whole	788	9,642	224	550	5,669	149
Frozen fish fillets	11,040	183,489	4,257	9,826	152,861	4,005
Shrimp and lobster, frozen	59	5,204	121	92	6,205	163
Roes, frozen	193	3,754	87	65	809	21
Canned fish	54	3,366	78	87	5,762	151
Cod-liver oil	1,121	9,920	230	1,215	9,823	257
Lumpfish roes, salted	54	754	17	22	288	8
Other roes for food, salted	127	1,600	37	629	6,371	167
Herring, salted	13,111	119,203	2,766	6,869	52,210	1,368
Herring oil	13,336	58,844	1,365	3,815	20,323	532
Ocean perch oil	15	59	1	189	1,075	28
Whale oil	388	2,558	59	-	-	-
Fish meal	4,965	30,627	711	12,205	46,351	1,214
Herring meal	14,672	90,930	2,110	7,137	28,358	743
Ocean perch meal	5	23	1	1,084	3,482	91
Wastes of fish, frozen	512	1,426	33	1,763	3,285	86
Liver meal	90	588	14	125	660	17
Lobster and shrimp meal	-	-	-	194	376	10
Whale meal	252	1,310	30	305	1,020	27
Whale meat, frozen	86	601	14	286	1,930	51

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

Iceland (Contd.):

HERRING EXPORTED TO NORWAY FOR REDUCTION:

The Icelandic Government complied with a request from fishing vessel owners to allow sales to Norway of fresh herring for reduction. Only herring caught during May off the southwest coast were allowed to be exported. In order to compensate for a rather lean winter fishing season (groundfish fisheries), which closed about mid-May, many fishing vessels planned participation in the excellent herring fisheries. More herring appeared on the southwest grounds during the winter and spring of 1962 than for many previous years. The reduction plants located in the southwest area were unable to process the large quantity of landed herring, resulting in over-stockpiling and consequent deterioration of the raw material. In some instances, vessels had to wait up to a week to discharge their catches. Herring caught during spring of the year is normally of low fat content and is unfit for processing other than for reduction.

In order to solve the processing problem, an Icelandic export firm undertook negotiations with Norway. A reduction plant at Kristiansund, Norway, agreed to purchase 5,000 metric tons of herring and was willing to take more, if available, at a price of Norwegian kroner 0.15 (equivalent to Icelandic kronur 0.90) per kilogram (about US$19 a short ton) f.o.b. Faxabay Harbor, Iceland. A Norwegian ship was expected to arrive in Iceland early in May for the first shipment. The Norwegians agreed to a minimum of 9 percent fat content herring. It was stipulated in the export permit that only herring caught during May as well as surplus which the local plants were unable to process could be exported.

The price to the Norwegians was somewhat higher than that paid by the local reduction plants. It was reported, however, that the price difference was offset by export fees and other charges undertaken by the exporter.

While the reduction plants on the southwest coast are of relatively small or medium size and are primarily geared for reduction of fish waste from freezing plants and groundfish unfit for other processing, there are large and efficient herring reduction plants on Iceland's north coast. These plants are normally in operation only during the north coast summer herring season (June-August) and idle the remainder of the year. When this export arrangement with Norway was known, many people wondered why the north coast plants were not being utilized instead. The State Herring Factories (the largest in the country) and other north coast plants announced that based on raw material prices paid by southwest coast plants, the transportation cost to the north coast was too high and would result in uneconomical processing.

With new types of fishing gear and sonars, herring fisheries in the Faxabay area have undergone drastic changes during the past 2 or 3 years. (United States Embassy, Reykjavik, May 3, 1962.)

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UTILIZATION OF FISHERY LANDINGS[1/], JANUARY 1962:

How Utilized	January 1962	January 1961
	(Metric Tons)	
Herring[2/] for:		
Oil and meal	10,195	2,897
Freezing	2,827	3,537
Salting	1,720	2,383
Groundfish[3/] for:		
Fresh on ice landed abroad	6,838	3,149
Freezing and filleting	6,886	6,150
Salting	2,366	2,379
Stockfish	1,161	1,569
Home consumption	811	623
Oil and meal	104	163
Total production	32,908	22,850

1/Does not include shellfish (lobster and shrimp).
2/Whole fish.
3/Drawn fish.

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Indonesia

JAPANESE NEGOTIATIONS TO ESTABLISH TUNA BASE CONTINUE:

The Wakayama Prefectural Fisheries Cooperative and a Japanese steel import-export firm are continuing to negotiate with the Indonesian Government to establish a tuna fishing base at Djakarta. This negotiation was first begun three years ago.

Base construction plans call for Japan to construct a cold-storage plant, a tuna canning plant, and communication and housing facilities at a total cost of US$2.5 million (which Indonesia would repay); and assignment of Japanese fishing vessels to the base.

The negotiations, which have dragged on, reportedly face the following difficulties: (1) Equipment needed for the base are to be procured in Japan. However, the Japanese banks cannot guarantee loans for procurement of equipment. (2) The Japanese Finance Ministry and Japanese banks have not expressed firm views concerning extension of loans for this project.

The Indonesian Government has assured the Japanese firms that Indonesia will make installment payments with proceeds from sale of tuna landed at the base. The Japanese firms are negotiating with the Finance Ministry and the Economic Cooperative Fund to secure necessary funds for the construction of the base, but their responses so far have not been favorable. (Shin Suisan Shimbun, April 23; Sankei Shimbun, April 13, 1962.)

Italy

PLANS REPORTED TO RESTRICT FROZEN TUNA IMPORTS:

Reports in some Japanese quarters point out that the Italian Government is planning to curtail frozen tuna imports in an attempt to expand domestic sale of meat products, which are said to be losing their market to canned tuna. This move within the Government is reported to have originated at the time when the European Common Market established frozen tuna import regulations, permitting Italy to import free of duty 25,000 metric tons of tuna, of which Italy has allocated 14,000 tons to imports from Japan.

Japanese exporters believe that the Italian Government's plan is merely conjectural for

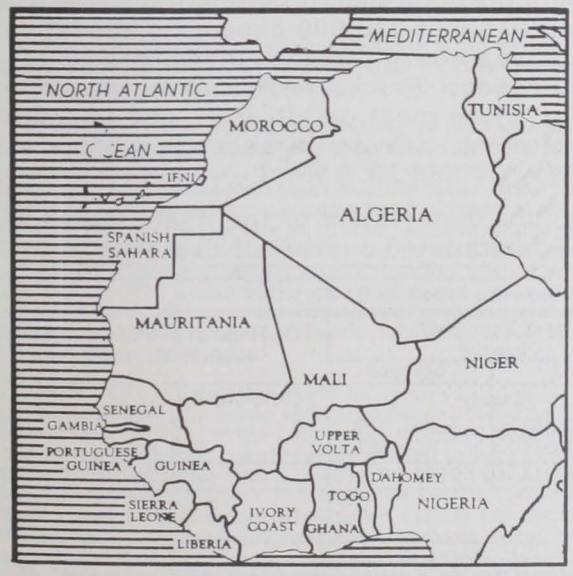
Italy (Contd.):

the following reasons: (1) The eating habits of Italians cannot be changed by policy changes of the Government, for the strong demand for canned tuna in Italy is due to the fact that the Italians are even greater fish eaters than the Japanese; (2) Italian canneries are only equipped to pack fish, so a switch to meat packing would involve considerable changes in facilities and canning techniques; and (3) It is unthinkable that Italy is planning to restrict tuna imports to protect its domestic industries since stock farming in that country is so small that the meat packers would have to import meat for packing purposes. (Translation from Japanese periodical Suisan Keizai Shimbun, May 2, 1962.)

Ivory Coast

JAPANESE TUNA VESSELS TO BE PLACED UNDER IVORY COAST REGISTRY:

The Japanese periodical Minato Shimbun of May 10, 1962, states that the joint company to be established in Abidjan, Ivory Coast, by a large Japanese fishing company and an Italian firm will operate with four fishing vessels, all of which will be placed under Ivory Coast registry. The bulk of their catches will be exported to France.



Establishment of the joint company in the Ivory Coast, although on a small scale, permits the Japanese company to circumvent the Common Market tariff restrictions, as well as the present high French import duty on tuna. Reportedly, the Ivory Coast, which was a French colony for a long time and became independent in 1960, is permitted to export tuna to France without paying the high French tariff on tuna imports, and because of its relationship with France the Ivory Coast is also exempted from the Common Market tariff restrictions.

The Japanese firm and the Italian firm are each investing US$160,000 in the joint company and 2 of the 4 vessels to be operated by the joint company will be provided by the Japanese firm. Both of the vessels are 39-ton tuna vessels, which do not require tuna fishing licenses in Japan.

Reportedly, the Japanese firm, which operates a large trawler fleet out of Las Palmas, Canary Islands, has formed another joint enterprise with the same Italian firm, and has transferred one of its trawlers to Italian registry. This move was also taken to get around the Common Market tariff restrictions. (Minato Shimbun, May 10, 1962.)

Jamaica

TUNA LANDED IN NOVEMBER-DECEMBER 1961:

During the November-December 1961 season, catches by Jamaica fishermen included albacore and yellowfin tuna ranging from 8 pounds to 50 pounds each. Also, landed at the same time were kingfish from 18 to 67 pounds each, dolphin and other pelagic fish, as well as 50 blue marlin in the Lances Bay area. All these fish were caught in the Caribbean Sea on multiple trolling lines used from outriggers. This fishing method has been taught by the Fisheries Division to fishermen in many parts of the Island of Jamaica, which is part of the Greater Antilles group of islands in the West Indies.

From April 5 to December 16, 1961, a total of 16 trips was made by the 43-foot government exploratory fishing vessel Blue Fin to the various offshore banks in the Caribbean Sea, including Pedro, Walton, Albatross, Henry Holmes, Grappler, Formigas, and New Banks. Until January 1962, the main purpose of the cruises was to train the local government fisheries personnel in the operation and maintenance of the boat and its equipment, to familiarize groups of local fishermen in this type of offshore operation, to test various

Jamaica (Contd.):

types of artificial trolling lures, and to make a general survey of the banks in respect to locating the best areas for trolling tuna, bonito, and other pelagic species, as well as to ascertain good bottom fishing grounds for certain demersal species. Fishing activities consisted mainly of surface trolling during daylight hours and handlining for yellowtail snappers, jacks, and groupers during the night.

From the results obtained during the period it was found that "blackfin" tuna was more in abundance than other tuna species and was almost invariably found along, and close to, the windward or eastern edges of the bank.

It was estimated that "blackfin" tuna constituted roughly 50 to 60 percent of the total troll-caught fish, the other species being dolphin, kingfish, barracuda, bonito, and an occasional yellowfin tuna. The most encouraging results with trolling were obtained on a five-day trip to Formigas Bank in October 1961 when 3,500 pounds of fish were caught. Trolling lures found most successful included $4\frac{1}{2}$-inch to 6-inch white whale bone jigs and white feather jigs of from $\frac{3}{4}$ ounce to 2 ounces for smaller tuna and 5 ounces for kingfish.

Japan

PACK AND SHIPMENTS OF CANNED TUNA IN BRINE FOR EXPORT TO UNITED STATES:

The Japanese tuna packers association in May 1962 announced the production and shipment of canned tuna for export to the United States in fiscal year 1961 (April 1961-March 1962), according to a translation from the Japanese periodical Suisan Tsushin, May 22, 1962.

Japanese Pack, Shipments, and Stocks of Canned Tuna for Export to U. S.

	Brought Forward from FY 1961 (April 1, 1961)	Fiscal Year 1961 Quantity		On Hand at End of FY 1961 (March 31, 1962)
		Packed	Shipped	
	(Cases)			
White meat	294,274	1,337,980	1,539,319	92,935
Light meat	305	1/1,040,033	754,657	285,681
Total	294,579	2/2,378,013	2,293,976	378,616

1/Yellowfin used for 165,144 cases.
2/Includes 72,549 cases for countries other than U. S.

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CANNED TUNA IN BRINE EXPORT PRICES RAISED:

The Japan Canned Foods Exporters Association held a regular meeting of its Canned Tuna Sales Committee on May 10, 1962, to discuss canned tuna for export to the United States, which was to be offered for sale in May. The meeting was attended by the head of the Tokyo Canned Tuna Sales Company. He stated that for the May sale, a total of 230,000 cases of canned tuna in brine (consisting of 120,000 cases of white meat tuna and 110,000 cases of light meat tuna) would be offered. The prices would be increased by 25 cents per case for white meat tuna and by 10 cents per case for light meat tuna. The new prices would be US$10.20 per case for white meat tuna and $7.80 per case for light meat tuna, f.o.b. Japan. Deliveries were scheduled for May and June.

At the meeting, the 18 authorized exporting firms were requested to place their orders for canned tuna by May 15. (Suisan Tsushin, May 11, 1962.)

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CANNED TUNA IN BRINE FIFTH EXPORT SALE TO U. S. EXCEEDS QUOTA:

The Japan Canned Foods Exporters Association invitations for the fifth or "May" sale of canned tuna in brine for export to the United States were closed on the deadline date of May 15, 1962. It was found that the total quantity applied for by the 18 outlet firms had amounted to about 240,000 cases, or about 10,000 cases above the announced quota of 230,000 cases. Prices were up 25 cents a case for white meat or albacore and 10 cents for light meat. (From Japanese periodicals dated May 22 and 23, 1962.)

The tuna department of the Association on May 21 formulated a draft of this year's intertrading firm agreement on the export of canned tuna in brine to the United States. The draft was to be presented for the approval of a directors meeting scheduled for May 25 and an extra general meeting scheduled for June 5. The agreement drafted covers 860,000

Japan (Contd.)

cases and will be effective from about June 18 up to the end of November.

The total export target to the United States for canned tuna in brine had been 2,200,000 cases, but 1,340,000 cases had already been sold by May 1962, hence the 860,000 cases.

The wording of the agreement has not changed materially from the former agreement, except that the export of canned tuna items other than in-brine and the in-oil packs may be exported to the United States if the normal formalities have been complied with.

* * * * *

CANNED TUNA IN BRINE MARKET SURVEY IN MIDWESTERN UNITED STATES:

The Japan Export Trade Promotion Association (JETRO) recently released a report on the marketing of Japanese canned tuna in brine in the United States based on market studies it had conducted in the Midwestern States of the United States. A translation of the report follows.

The purpose of the survey was to determine the possibilities of expanding the market for Japanese tuna packed in brine in the midwestern region of the United States by conducting a market survey in the three large Midwestern cities of Cleveland, Detroit, and Milwaukee. Specifically, the survey was conducted to collect and evaluate data in relation to:

1. Status and trend of canned tuna market in the three cities.

2. Sales of Japanese canned tuna in brine in the three cities compared with sales of canned tuna packed by other countries.

3. Views of the industry concerning prospects of marketing Japanese canned tuna in brine in the three cities.

4. Composition of canned tuna consumers in Detroit and Milwaukee with particular attention paid to consumer experience with and response to canned tuna in brine.

In making this study, all data related to the economic and marketing conditions in the surveyed area were thoroughly examined and analyzed. A study of the economy of Cleveland, Detroit, and Milwaukee revealed that the three cities had a combined population corresponding to 18 percent of the total population of the five states of Illinois, Indiana, Michigan, Ohio, and Wisconsin, which border the Great Lakes, and a purchasing power per family higher than any other cities in that region. The areas surrounding the three cities and Chicago are the most important commercial centers in the Midwest, and logically suited for the development of a market for Japanese canned tuna.

No accurate information could be obtained on the sales of canned tuna (both domestic and imported products) in the Midwestern States, but the 1961 sales of United States canned tuna in the Midwestern States is estimated to have reached 3.5 to 4 million cases (No. 1/2 48's), or 22-25 percent of the total of 15.6 million cases packed in the United States in 1961. Since most of the domestically-packed canned tuna in the United States is intended for the retail market, it can be assumed that the sales figures for the Midwestern States roughly indicate the extent of the canned tuna retail market in those areas.

In 1961 the United States imported between 2-3 million standard cases of tuna packed in brine from Japan. Of that, approximately 450,000 cases were sold in the midwestern region, principally in large cities near the Great Lakes where approximately 350,000 cases were sold. Thus, sales of Japanese canned tuna throughout the midwestern United States amount to not more than 4-5 percent of the total United States imports of Japanese canned tuna in brine.

Canned tuna consumption per family per year in Cleveland and Milwaukee is 0.4 case and in Detroit 0.7 case, so Detroit can be considered an important market for canned tuna. In those three Midwestern cities, two United States tuna brands dominate the market, their sales accounting for 75-80 percent of the total canned tuna sales; whereas, sales of Japanese canned tuna are only 3-9 percent of total sales. United States packers of the two leading brands conduct extensive advertising throughout the United States and have established a firm foundation for their products; whereas, advertising of Japanese canned tuna is indeed meager.

A study of the distribution of canned tuna in brine in 24 supermarkets located in the three Midwestern cities revealed a startling fact. That is, Japanese canned tuna was not (fully) displayed on the shelves of these supermarkets and so it had no impact on consumers. Concerning this, the purchasing officers of 2 or 3 supermarkets in the Cleveland area expressed disappointment at the slow sale of Japanese canned tuna in brine until now and they stated that they would have to drop this item from their list of regularly-stocked items unless sales improve.

In Milwaukee, 62 percent of the consumers knew about tuna packed in brine, and in Detroit the percentage was 52. Most of the consumers first learned about canned tuna in brine by seeing it in a store, which goes to show how important it is to display merchandise on the store shelves, and what is important in this regard is to reach that group of consumers who do not know about tuna packed in brine, for they are the potential buyers of Japanese canned tuna.

To the question, "Don't you think you will like tuna packed in brine?" asked in Detroit, about 26 percent of those who claimed they were not familiar with the product answered, "I think I may get to like it;" 42 percent said, "I don't think I will come to like it;" and 32 percent were not sure. In Milwaukee, 40 percent thought they would come to like it. From this survey, the virgin market in Milwaukee seems to show greater potentiality than that in Detroit.

In Detroit and Milwaukee, the main reasons why the people thought they would like canned tuna in brine are as follows (arranged in order of importance):

1. They dislike oil and fat.

2. They thought tuna packed in brine was preferable from the standpoint of health, dietary, and cholesterol considerations.

3. Tuna packed in brine has a more natural, real flavor.

4. They always discard the oil contained in canned tuna.

Among the group who thought they would not like canned tuna in brine, 45 percent thought canned tuna in brine was too salty, and 25 percent said canned tuna in brine was dry and tasteless.

These opinions should be carefully studied by Japanese packers of canned tuna in brine.

The people connected with industry all agree that there are indications that the demand for canned tuna in brine, as well as in oil, on the retail level will continue to grow during the next several years in Cleveland, Detroit, and Milwaukee, although not as rapidly as it did 4 or 5 years ago. In Detroit, where the per family consumption level is already high, canned tuna demand cannot be expected to rapidly increase, but the demand in the Milwaukee and Cleveland markets should rise considerably.

Japan (Contd.):

The question then arises as to how Japanese canned tuna can be made to appeal to the consumers in the three large Midwestern cities. This can be done by acquainting the people with canned tuna in brine, for there are many people in those three cities who do not yet know of the existence of this product. Experience has shown that a good percentage of consumers who have been introduced to canned tuna in brine through sampling programs eventually become regular buyers of this product. Besides, consumers of canned tuna in brine are very fond of this food as was shown by the consumer survey conducted earlier.

Next, the great effectiveness of canned tuna in brine in controlling cholesterol level and overweight problems can be stressed. The survey conducted earlier clearly showed that the people were attracted to canned tuna in brine mainly because they thought it was a more healthful food than tuna canned in oil and that it possessed greater dietary value. Another point which should be stressed is that high quality canned tuna in brine can be purchased for about the same price as chunk-style canned light meat tuna packed in oil.

Consumers in Cleveland and Detroit have a much stronger preference for white meat tuna than actual sales indicate. In Milwaukee, however, more people favor light meat tuna, even in solid packs. Another fact which cannot be overlooked is that there are many housewives who regularly buy chunk-style canned tuna because of the convenient sizes of chunk slices for cooking. In view of this, if the Japanese packers produce and export high quality chunk-style canned tuna to the United States, Japanese exports of canned tuna should increase. Moreover, a more extensive display of chunk-style canned tuna in brine on store shelves will increase the overall competitive power of Japanese canned tuna in brine.

The demand for big lots of canned tuna is steadily rising in the three Midwestern cities covered in this survey. In Cleveland and Milwaukee, the demand is increasing at a higher rate (5 percent) per year than in Detroit, which never has been able to develop a good restaurant trade. The businessmen in the three cities who were interviewed said that the market for canned tuna has not yet reached a "saturation point." However, we should not be complacent about this situation. In the three large Midwestern cities, big lot sales of Japanese canned tuna in brine may not increase as much as the sales through retail outlets, but before trying to increase the percentage of trade with the retail outlets, Japan should make sure that large lot sales in the three Midwestern States are increased and maintained at a 7 percent level per year.

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TUNA LANDINGS AT YAIZU, APRIL 1962:

A total of 10,130 metric tons of fish valued at US$3.3 million was landed at Yaizu, leading Japanese tuna fishing port, during April 1962. This was less than what was landed in the same month last year because of poor skipjack and mackerel fishing. In April 1961 landings totaled 12,172 tons, valued at $3.4 million. The season for skipjack and mackerel this year was delayed by adverse current conditions. Skipjack landings this April were down about 50 percent and mackerel landings were down 37 percent from last year's. In addition, Indian tuna fishing came to an end earlier than usual and landings of tuna other than skipjack and albacore were somewhat less than last year.

Yaizu Fishery Landings, January-April 1962 and 1961

Species	April		Jan.-April	
	1962	1961	1962	1961
	(Metric Tons)			
Albacore	1,268	1,215	5,931	5,243
Skipjack	1,000	1,942	1,682	2,111
Other tuna	6,365	7,080	24,584	26,097
Mackerel	845	1,351	4,411	3,130
Other fish	652	584	2,852	2,603
Total	10,130	12,172	39,460	39,184

Japanese tuna long-liner leaving Yaizu, principal tuna port, for the Indian Ocean fishing grounds.

Landings at Yaizu for January-April 1962 of 39,460 tons exceeded slightly the previous year's landings. (Suisan Keizai Shimbun, May 19, 1962 & other Japanese periodical of May 12, 1962.)

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PROSPECTS FOR SKIPJACK AND ALBACORE TUNA FISHING OFF JAPAN:

With the peak of the season for skipjack and albacore tuna off Japan about to begin early in May, generally pessimistic views on skipjack fishing were expressed late in April 1962 because of an over-all decrease in the number of fishing vessels fishing for skipjack this year and conditions of rising temperatures in the path of the Black Current off Japan.

According to the Shizuoka Prefecture Fisheries Experimental Station, while the cold-water mass in the Enshunada Sea is about the same size as a normal year, the strength of the Black Current is not as powerful, and so is the reverse current on the edge of the main stream. The rising of temperatures is also somewhat behind time. Landings in the Prefecture during March amounted to some 500 tons, nearly twice as much as in the corresponding month last year, but the majority of catch was assumed to be the fish more or less stationary in inshore waters. To substantiate the delayed arrival of migrating fish, landings decreased to almost half at the beginning of April. The catch trend for skipjack is very similar to that in 1957 when it was only fair.

Japan (Contd.):

The number of vessels fishing skipjack totaled 160 or 170 last year, but it is anticipated to be around 100 this year. Prospects are not bright for the skipjack tuna fishery off Japan this year.

Because of delayed rising temperatures of the Black Current, once albacore tuna schools of regular size arrive, a good fishing area will be formed in inshore waters for a comparatively long period.

Not only large vessels capable of fishing in offshore waters have decreased, but also the delayed completion of the guidance vessel Fuji Maru, now under construction, proves to be a great handicap in locating fishing grounds beyond the inshore waters. Observers are inclined to feel that the season's albacore and skipjack catch off Japan will now depend entirely upon the possible development of fishing grounds in offshore waters.

At a meeting of the Japan Fisheries Academic Society, a technician of Tokai University Fisheries Research Institute announced that fishing for albacore further north this year will yield an abundant catch. To substantiate his new theory, he cited the capture by Japanese vessels of two albacore tagged and released by United States biologists in the Eastern Pacific. (Suisan Keizai Shimbun, April 27, 1962.)

It has always been an established theory that albacore in the Pacific fishing grounds have the habit of migrating from east to west. At the point where two Japanese tuna vessels retrieved the American-tagged albacore and others, there have been instances where Japanese vessels caught tuna tagged and released from the American side. This fact substantiates the theory that fish migrate from east to west, and moreover, their migration from north to south has also been established clearly. Comparison of body length at the time of release and capture showed a remarkable growth.

Albacore schools have the habit of following a school of smaller fish, small fish are followed by medium fish, and again by large fish. Should a fishing vessel discover a school of small fish, a large catch of albacore is assured with the medium and large fish to follow. On the contrary, if the large fish are found first, fishing will be poor because only the large ones are caught and no other schools of smaller sizes will follow.

In the fishing area some 800-1,600 kilometers off Nojimazaki Cape, Chiba Prefecture, based on the east-west migration theory in the past, the capture of fish schools that migrate north to south cannot be fished easily. There is no doubt about having a good albacore catch if fishing is done further north. The fishing season too may last one month longer than in the past--beginning in May and going through July.

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SKIPJACK AND ALBACORE FISHERY TRENDS, MAY 1962:

The late start in skipjack fishing off Japan this season was caused by the weakened strength of the Black Current. The fish were about one month late. But during the first half of May 1962 there were signs that fishing would be normal with better weather. At Yaizu, 368 tons of skipjack were landed early in May, followed by 190 tons a day or two later. Such landings of large quantities were the first for this season.

The fishing grounds as of mid-May were located at 33° N. latitude, 136°-137° E. longitude, off the Shinomisaki Cape, tip of the Kii Peninsula, in the central part of Honshu, and 34° N. latitude, 138° E. longitude, off Omaezake Point, Shizuoka Prefecture, in the Enshunada Sea. Good fishing was reported on those fishing grounds in mid-May. There were prospects that the good fishing would continue for awhile. Chiefly tuna vessels from Mie Prefecture were fishing in the area, but vessels from other prefectures were also concentrating at those fishing grounds.

Oceanic and fishing conditions May 6 through 10 were reported by the Yaizu Branch of Tokai-ku Fisheries Research Institute as follows:

The water temperature was gradually rising, and the cold water mass in the Kumanonada Sea and a low temperature area southwest off Shionomisaki Cape were beginning to show signs of dwindling. In the Enshunada Sea, a branch of the Black Current moving northward along the Izu Seven Islands was projecting itself rapidly and warm water of 20°-21° C. (68°-69.8° F.) was passing two fishing grounds in the west of the archipelago and moving up to a point south of Omaezaki Point. At 120 miles southeast of the point, a warm water belt of 20°-21° C. was approaching the edge of the cold water mass where a good skipjack fishing area was developing.

Accordingly, at 60-70 miles west of the fishing ground in western waters of the archipelago and around Miyakejima Island of the Izu Seven Islands, good fishing areas for skipjack were developing where daily catches of some 10 metric tons were being made. Also, good fishing of the same degree was going on off Shionomisaki Cape and this fishing ground was moving south southeastward between the cold water mass and the warm water belt. Active fishing was also reported in the sea area around the Bonin Islands where small skipjack of 2.5 to 4.5 pounds each were being caught.

The albacore fishing ground developing around 29° N. latitude, 132° E. longitude was shifting early in May somewhat northwardly and approaching the 30° N. latitude line. Fishing was only fair. In the sea area, 29° 30' N. latitude, 135° 20' E. longitude catches of 2-3 tons a day were reported. Almost no catches were made in the area southeast of Kinansho, south of Shionomisaki Cape.

The Mie Prefecture Fisheries Experimental Station in mid-May 1962 made public its report on skipjack and albacore fishing conditions off Japan.

"Skipjack: The principal part of the skipjack school that has arrived on the main stream of the Black Current via southwestern islands is gathering on the main stream of the warm current, moving east northeasterly on the north side of the cold water mass in the Enshunada Sea, from the main stream of the Black Current between Murotomisaki Point and Shinkurose Shoal. The school following is seen in waters off Ashizurimisaki Point, Shikoku, and it is a fairly large size one. The school moving northward around Iwo Jima, south of the Izu Seven Islands, is expected to arrive at fishing areas south of the Izu Peninsula in the near future. The border between the cold-water mass and the main stream of the Black Current in the Enshunada Sea is offering a suitable place for skipjack schools to linger. Accordingly, it will be a principal fishing area in the latter part of May and beginning of June. The waters off the Nojimazaki Point will not be active until the beginning of June.

"Albacore: A point 100 miles south of Ashizurishima Point, Shikoku, some 70 miles northwest of Kinan Rock has sea conditions suitable for schools to come to the surface. Sporadic good fishing can be expected at various fishing grounds shortly. Also, at a point about 50 miles west of Hachijojima Island similar conditions exist. This school is expected to concentrate off Nojimazaki Cape toward the end of May and in the first part of June where regular fishing is anticipated when it will come to the surface in a wide area." (Suisan Keizai Shimbun, May 19 and 23, 1962.)

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SUMMER ALBACORE TUNA SEASON STARTS:

Japan's summer albacore tuna season started with landings of more than 100 metric tons in two successive days at Yaizu as of May 2, 1962, according to a translation from a Japanese periodical. But only 42 vessels were operating as of that date: 24 from Shizuoka Prefecture and 18 from Mie Prefecture. There were 90 vessels engaged in the fishery at the same time last year. Under the cir-

Japan (Contd.):

cumstances, landings were smaller than last year. The high price early this May was US$384 per ton as compared to $276 a ton a year earlier. Canners were doing the buying, but even for them the price was thought to be too high.

At the peak of the season last year in mid-June, 190 tuna vessels were operating in the albacore fishery. This year, with more larger vessels, the operating vessels are about 60-70 percent of last year's number. A large quantity of summer albacore this year is not expected. (Suisan Keizai Shimbun, May 2, 1962.)

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SUMMER ALBACORE TUNA LANDINGS AS OF MID-MAY 1962:

Fishing for summer albacore tuna off Japan was poor during the first half of May 1962. The development of the fishery was being watched with anxiety by canners in the Shimizu district of Japan. The number of fishing vessels operating in the fishery is far less than in the past, and the ocean pattern does not seem to allow the smaller fleet to catch the fish in waters not too far from land.

The landed or ex-vessel price had risen from ¥150 to ¥155 per kilogram (US$378-390 a short ton), with an expected probable increase to ¥160 a kilogram ($404 a short ton). The canners fear that the same thing might occur as in 1960 when the production quota for canned albacore or white meat tuna was not attained.

Daily landings of 60-80 metric tons of summer albacore at Yaizu, Japan's leading tuna port, were being maintained with a smaller number of vessels fishing. Unless landings of several hundred tons a day were made in the future, the canners would not be able to fill their production quota. (Suisan Tsushin, May 14, 1962.)

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FROZEN TUNA PRICES REPORTED FIRM:

Prices for Japanese-caught Atlantic Ocean tuna are expected to go up (according to the Japanese periodical Suisan Tsushin of May 15, 1962), as a result of expanding markets and decreasing catches. Yellowfin tuna delivered to Italy as of early May brought $360 a metric ton and big-eyed tuna $335 a metric ton. Both prices are $10 a ton above those originally agreed upon by Japan and Italy.

Yugoslavia is purchasing Japanese yellowfin tuna for $370 a metric ton and big-eyed tuna for $355 a metric ton. Originally, Yugoslavia had contracted to purchase yellowfin for $360 a metric ton and big-eyed for $335 a ton.

Because of the shortage of raw tuna, United States tuna packers are not as selective in their tuna purchases as before and are reported to be willing to accept large yellowfin tuna, instead of only small yellowfin as before, Suisan Tsushin states. Japanese export firms feel that the United States packers may start purchasing Atlantic Ocean big-eyed tuna in the future.

The export price of albacore tuna in Japan proper is also reported very firm. One United States packer is said to have made an offer to purchase albacore for $375 a short ton, f.o.b. Japan. However, Japanese canned tuna packers are reported to be buying up most of the albacore, both clipper-caught fish and pole-caught fish, and are paying $378 per short ton ex-vessel. For this reason, frozen albacore for export purposes was reported to be difficult to procure as of early May.

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ADJUSTMENTS PROPOSED IN FROZEN TUNA EXPORT QUOTAS TO EUROPE AND AFRICA:

The Japan Export Frozen Tuna Producers Association held a directors meeting on May 10, 1962, and voted to accept the proposal to change regulations governing export of frozen tuna and tunalike products to Europe and Africa in fiscal year 1962 (April 1962-March 1963). This proposal was to be presented for adoption to the Association's general meeting on May 25.

Changes proposed are: (a) The regulations to be effective for a period of 9 months beginning July 1962 and ending March 1963. (b) For this nine months period, the tuna export quota to Italy be set at 9,000 metric tons, and this quota be allotted to exporters on the basis of past performances. Also, the number of trips a fishing vessel can make be increased by 0.375 trip per vessel. (Editor's Note: This means that a 1,000-ton capacity vessel can land an additional 375 tons of tuna above

Japan (Contd.):

its present quota, or a 500-ton capacity vessel can land an additional 187.5 tons of tuna.) (c) Regulations limiting tuna landings at European and African ports other than Italian ports to two trips be abolished.

As for transshipping Indian Ocean tuna catches to Italy, this is still prohibited under current tuna export regulations. (Suisan Tsushin, May 11, 1962.)

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ATLANTIC TUNA FISHERY TRENDS, FIRST QUARTER 1962:

Each Japanese tuna vessel in the Atlantic Ocean had been making satisfactory catches up to the middle of March 1962, but since then the catch ratio drastically fell. Taking the case of a large vessel with catchers carried on deck, 12-15 tons a day was its average catch in the first and middle part of March. The bulk of the catch was yellowfin.

The same drastic decrease in yellowfin catch ratio occurred in April last year and all the vessels were compelled to move southward to big-eyed tuna areas and sales were adversely affected. Should poor yellowfin fishing continue from spring through the beginning of summer for two successive years, the desire to fish in the Atlantic will be greatly affected.

Reports coming from the tuna vessels fishing in the South Atlantic indicate that it takes more fishing days to fill the fish holds. This results in an increase in operation costs. To explain the seriousness of the situation, it is said that heretofore it took only one month or 50 days to fill a tuna vessel, but now it takes three months of fishing.

On the bright side, another later report said that 77 Japanese tuna vessels, were fishing in the Atlantic as of May 1962, and the average daily catch for a 500-ton vessel with a catcher carried on deck is said to be 8-10 tons. A noticeable recovery from poor fishing in March was noted as of early May, but this was still less than last year's average daily catch of 10-12 tons per day. About 60-70 percent of the catch was yellowfin and about 10 percent big-eyed. Fishing was reported to have moved northward a little early in May and was concentrated around 10° N. latitude and 20° W. longitude. As last year poor fishing began in mid-June, there was some speculation as to whether or not this would again occur this June. (Suisan Tsushin, April 17 and May 15, 1962.)

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ATLANTIC OCEAN TUNA FISHING IMPROVES:

Japanese tuna long-line vessels in the Atlantic Ocean as of early May 1962 totaled 77 vessels. Reports indicate that fishing which was poor in March had improved. Catches consisted of 60-70 percent yellowfin and about 10 percent big-eyed tuna. The Japanese vessels are reported to be concentrated in the vicinity of 10° N. latitude and 20° W. longitude. (Suisan Tsushin, May 8, 1962.)

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TUNA MOTHERSHIP FLEETS SCHEDULED TO DEPART FOR FISHING GROUNDS:

A large Japanese fishing company's tuna mothership Koyo Maru (7,500 gross tons) and another firm's tuna mothership Nojima Maru (8,800 gross tons) were scheduled to depart from Japan for the tuna fishing grounds near the Fiji Islands in the South Pacific Ocean. The Koyo Maru was scheduled to depart from Tokyo on May 25, 1962, and is expected to return to Japan in late October, and will be replaced by the firm's second tuna mothership Tenyo Maru No. 3 (3,710 gross tons). Catch target for the Koyo Maru fleet is 11,000 metric tons of fish, including 8,030 tons of tuna, 1,870 tons of spearfish, 990 tons of sharks, and 100 tons of other miscellaneous fish. About 70 vessels, ranging in size from 80-360 tons gross, will make up the Koyo Maru fleet.

Three large refrigerated carrier vessels were expected to be assigned to the Koyo Maru fleet to transport frozen tuna to Japan and the United States. They are the Banshu Maru No. 38 (990 gross tons), which was expected to depart Shimonoseki around May 20; followed by the Banshu Maru No. 35 (990 gross tons) in June; and shortly thereafter by the Banshu Maru No. 36 (990 gross tons). (Suisan Keizai Shimbun, May 15 & 17; Minato Shimbun, May 16, 1962.)

Supply vessels assigned to the Koyo Maru fleet will make a total of 7 trips to haul catches, 3 trips to Japan, and 4 trips to the United States. Shipments to the United States are to be transshipped from Suva. Estimated dates of carrier vessel arrivals in Japan are August 5, August 19, and September 15. Esti-

Japan (Contd.):

mated dates of carrier vessel departures from Suva to the United States are June 15, September 11, September 30, and November 10.

The Nojima Maru fleet (composed of 65 vessels) was scheduled to depart from Kobe on May 17 and will operate in the South Pacific Ocean until late October. Its catch target is 8,000 metric tons of fish, including 3,382 tons of albacore and 2,848 tons of yellowfin tuna. (Minato Shimbun, May 13, 1962.)

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CATCHES BY TUNA MOTHERSHIP FLEETS IN THE PACIFIC OCEAN, 1961:

The Japanese Fisheries Agency compiled the 1961 catch by tuna mothership fleets in the Pacific Ocean. Five fleets operated, of which three belonged to one fishing company.

Catches by Japanese Tuna Mothership Fleets in the Pacific Ocean, 1961

Fleet	No. Catchers	Catch
		Metric Tons
Tenyo Maru No. 3	40	6,542
Koyo Maru	35	4,515
Tenyo Maru	49	6,525
Nojima Maru	49	8,268
Jinyo Maru	36	3,083
Total	209	28,933

The fleets operated in Fiji waters with a quota of 22,000 metric tons. The total catch was 28,933 tons, including the quota in lieu of retired tuna vessels. (Suisan Keizai Shimbun, May 9, 1961.)

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TUNA MOTHERSHIP REGULATIONS UNDER STUDY:

The Japanese Fisheries Agency early in April was studying regulations governing mothership-type tuna-fishing operations for FY 1962 (April 1962-March 1963) and was expected to announce the new regulations by early May. This year the Fisheries Agency reportedly intends to expand the tuna fishing grounds somewhat westward in view of the nuclear tests by the United States in the South Pacific. The Fisheries Agency is also expected to give consideration as to whether or not to: (1) maintain the catch quota at 22,900 metric tons as in FY 1961 (April 1961-March 1962); (2) discontinue the system which allows tuna mothership companies to augment catch quotas allocated to their mothership fleets by retiring tuna fishing vessels from the tuna fishery for specified lengths of time and, instead, increase their catch quota by 20 percent, with the increase to be based on actual past production, and (3) discontinue the current method of regulating catch based on allocation of fixed quotas to motherships and, instead, control catch by assigning quotas to catcher vessels assigned to the motherships.

The Fisheries Agency is not likely to approve the tuna industry's request to relax tonnage restrictions placed on tuna catcher vessels assigned to motherships, nor the use of portable vessels for experimental fishing. However, the Agency plans to authorize use of medium (40-100 tons) fishing vessels retired from the salmon fishery. (Suisan Keizai Shimbun, April 22, 1962.)

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JAPANESE RECOVER AMERICAN-TAGGED ALBACORE TUNA:

An albacore tuna tagged by the Oregon State Fisheries Commission was reported to have been recovered by the Japanese tuna vessel Ryokichi Maru No. 6. The tag was sent to the Tokai University's Fisheries Research Laboratory. According to the Laboratory, the albacore was tagged on September 10, 1961, at 46°17' N. latitude, 126°07' W. longitude and recovered with troll gear on March 14, 1962, at 28°02' N. latitude, 140° 50' E. longitude. The fish weighed about 15 pounds when tagged and released.

A second albacore tag recovery was also reported by the Laboratory. This recovery was made by the Japanese tuna vessel Kyoshin Maru No. 5 on February 14 around the Bonin Islands (at 28°50' N. latitude, 146° E. longitude). The fish when caught was 83 centimeters (32.7 inches) long and weighed 17 kilograms (37 pounds). The albacore was tagged and released off the border of the United States and Canada (at 46°17' N. latitude, 126°7' W. longitude) by Oregon biologists. When released on September 10, 1960, it weighed about 14 pounds and measured 68 centimeters (26.8 inches). It took 524 days to swim from the American coast to the point where it was captured. According to the Tokai University Fisheries Research Laboratory, this is the first time a tagged albacore has been recaptured south of 28° N. latitude. (Suisan Keizai Shimbun, April 20, 1962.)

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TUNA VESSEL SIZE CLASSIFICATION TO BE ELIMINATED:

According to the Japanese Fisheries Agency, the Fisheries Law is being revised

Japan (Contd.):

to eliminate the present distinction made between medium tuna vessels (40-100 tons) and distant-water tuna vessels (over 100 tons) and to combine the two classes of vessels into one category.

As for medium purse-seine vessels presently licensed by prefectural governors, those that are powered and exceed 40 tons gross are expected to be placed in the same category as powered vessels of over 60 tons gross and will henceforth be licensed by the Minister of Agriculture and Forestry. (Suisan Keizai Shimbun, April 22, 1962.)

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LOANS PROPOSED FOR CONSTRUCTION OF TUNA VESSELS:

The Japanese Fisheries Agency reportedly is recommending that the Government-operated Agriculture and Fishery Finance Corporation extend 1.8 billion yen (US$5 million) of loans to owners of the 81 gill-net vessels displaced from the eastern Hokkaido land-based salmon fishery in 1962 to enable them to construct 99-ton tuna vessels. This amount exceeds the fund authorized by the Finance Corporation for vessel construction, so to provide these loans the Agriculture and Forestry Ministry will have to revise the Finance Public Corporation Law and the Finance Ministry will have to prepare a supplementary budget for submission to the Special Diet session, which convenes in July.

The vessel loans to be provided by the Finance Corporation will be used to finance up to 80 percent of the cost of constructing a total of 50 tuna vessels, each of 99 tons gross. The loans will be payable in 10 years for steel vessels and 7 years for wooden vessels at 7.5 percent interest. (Shin Suisan Shimbun, May 7, 1962.)

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FIRM PLANS TUNA FISHING FROM AMERICAN-SAMOAN BASE:

A large Japanese fishing company is reported to have submitted an application to the Fisheries Agency to engage in tuna fishing from the American-Samoan base. Under the plan, 30 fishing vessels belonging to fishing firms (whose vessels were withdrawn from the salmon fishery this year) affiliated with the large fishing firm will be contracted to fish for tuna out of American Samoa. The catches, expected to total 12,000 metric tons annually, will be sold to the United States cannery on American-Samoa through a Japanese trading firm.

The Fisheries Agency is studying whether it should approve the application since two other Japanese fishing firms, which presently have a working arrangement to deliver tuna to the Samoan cannery, are requesting that their present 12,000-metric-ton Samoan quota be doubled. If both applications are approved, the combined quota for the three companies would come up to 36,000 metric tons. That the Fisheries Agency will approve both applications seems doubtful and speculation is that the Agency may approve a total quota of between 18,000-24,000 tons for allocation to the three companies. (Suisan Tsushin, May 24, 1962.)

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JAPANESE-UNITED STATES TUNA MEETING PROPOSED

Japanese Minister of Agriculture and Forestry Kono, who attended the Sixth Annual Meeting of the International Northwest Pacific Fisheries Commission (U. S. S. R. and Japan) in Moscow, stopped at Washington, D. C., in May 1962 on his way back to Japan and is reported to have met with U. S. Secretary of the Interior Udall to discuss the promotion of Japanese tuna exports to the United States, according to reports in Japanese periodicals. Reportedly, Minister Kono has suggested to Secretary Udall that a conference be held between Japan and the United States to discuss the matter in detail. The meeting, if held, is expected to be scheduled for late August or early September 1962.

Minister Kono's objective in seeking to hold a Japan-United States tuna meeting is reportedly to seek the expansion of canned tuna exports to the United States and the lowering of United States import tariffs on canned tuna in brine and in oil.

Some Japanese tuna industry members consider that Minister Kono's proposal to Secretary Udall is a political maneuver designed to pave the way for the establishment of the large tuna base in the Fiji Islands, which is the subject of much discussion in Japan at the present time.

The provisional agreement concluded between the Fijian Government and the Japanese industry members involved in the proposed

Japan (Contd.):

Fijian venture calls for the establishment of a two-line cannery at the joint base to process tuna and other fish landed at that base for export purposes. In early March, the Japanese Fisheries Agency publicly announced that the Agency does not intend to approve the establishment of canneries at overseas bases and went so far as to have the large fishing companies pledge that they will not engage in the manufacture and export of canned tuna in brine at their overseas bases.

Industry members feel that by having made the gesture to the United States to seek the expansion of Japanese canned tuna exports to the United States, Minister Kono will be able to state that an increase in tuna exports to the United States is a definite certainty and thereby be able to mollify industry's opposition against the establishment of the joint tuna base in the Fiji Islands when the Japanese Government officially authorizes construction of that base. (Suisan Keizai Shimbun, May 18; Suisan Tsushin, May 16, March 2, and February 17, 1962.)

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FISHERIES AGENCY VIEWS ON USE OF SMALL TUNA VESSELS AT OVERSEAS BASES:

Several Japanese fishing companies have been reported considering using 39-ton tuna vessels, which do not require fishing licenses, at overseas bases. Included in this group is one fishing company which plans on using 39-ton vessels at American Samoa; another which hopes to dispatch two 39-ton vessels to Abidjan, Ivory Coast, where that company plans to establish joint fishing operations with an Italian company; and a third company which plans on operating 39-ton vessels in the Atlantic Ocean.

Responsible officials of the Fisheries Agency have expressed the following views concerning the intentions expressed by the fishing firms to operate 39-ton vessels at overseas bases:

1. The Agency does not have the authority to regulate the operational area of 39-ton tuna vessels. However, exports of tuna come under the trade control ordinance. Depending on where tuna are to be exported and quantities involved, it is possible that the Ministry of Agriculture and Forestry may not approve applications submitted by fishing companies to export tuna caught by 39-ton vessels based at their overseas bases.

2. At the present time, the Agency has no intention of approving exports of tuna caught by 39-ton vessels to areas presently covered under export regulations governing fresh and frozen tuna.

3. In the case of the firm planning to base 39-ton vessels at American Samoa, the Agency cannot stop that company from using the unlicensed vessels as long as total deliveries of tuna to Samoa do not exceed the export quota allotted to the base. However, in the following year, the Agency can reduce the Samoan quota by the amount of tuna landed by the 39-ton vessels in the preceding year. The Agency has unofficially asked the firm to abandon its plan to use 39-ton vessels, and the firm has complied with the request.

4. Exports of tuna to countries presently not covered under the tuna export regulations will not be prohibited. In this regard, the company's application to base two 39-ton tuna vessels at Abidjan will probably be approved.

5. The company planning to operate 39-ton tuna vessels in the Atlantic Ocean has been instructed to abandon its plan, if its plan includes exporting the catches to such countries as the United States and Italy. (Suisan Tsushin, April 20 and 23, 1962.)

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TUNA FEDERATION OPPOSES TUNA VESSEL TONNAGE INCREASE:

The Suisan Tsushin of May 2, 1962, states that the announcement made by the Japanese Fisheries Agency that it was considering a plan to increase by 20,000 gross tons, over a two-year period, the authorized vessel tonnage of the Japanese tuna fleet has astounded the Japanese tuna industry. Under this plan, fishermen engaged in the depressed coastal fishery would be issued licenses to operate tuna vessels under 100 tons gross and salmon fishing vessel owners displaced from the salmon fishery this year following curtailment of salmon fishing activities would also be authorized to operate tuna vessels under 100 tons gross. (Editor's Note: A total of 121 vessels were displaced from the salmon fishery.)

The Fisheries Agency's plan is strongly opposed by the National Federation of Tuna Fisheries Cooperative Associations, which maintains that the tuna fishery cannot accommodate an additional 20,000 tons of new tuna vessels in view of limited tuna resources and world tuna market conditions. The Federation points to the danger to tuna resources by citing the following facts: (1) catch rates in all principal fishing grounds have declined to between 65-80 percent of the catch taken 5 years ago; (2) each trip now takes 5-10 days longer than before; and (3) fish sizes are becoming smaller and smaller.

The Agency claims that the Federation's argument does not necessarily indicate a threat to tuna resources and points out the established theory that: (1) catch rate in a new fishing ground fished by long line is initially very high but declines sharply within a few years and subsequently levels off; (2) trip length and fish size are affected by changes in catch rate.

Sufficient data on tuna resources are lacking to pursue a discussion on tuna resources, states the Suisan Tsushin, and the Agency's attempt to push through its plans to authorize many more vessels to enter the tuna fishery seems somewhat unreasonable inasmuch as the Agency does not possess positive data showing that present tuna resources can support greater harvest. Until now, the tuna fishing industry had operated on a profitable basis and expanded by developing new fishing grounds. Should there come a day when new tuna fishing grounds cannot be developed, the fishermen will have to fish in existing grounds where catch rates are lower and it would be highly doubtful whether they can maintain a steady catch, particularly if more fishing vessels begin to fish the same waters.

Concerning world tuna market conditions on which the Agency and the Federation also disagree, the Fisheries Agency believes that the United States, where tuna consumption is annually increasing, will begin to rely more and more on tuna imports from Japan to supplement the tuna shortage existing in that country. The Agency also claims that possibilities exist to expand tuna exports to Czechoslovakia, France, Yugoslavia, and other European countries, and that domestic consumption of fish sausage is continually increasing.

The Federation argues that the United States and European countries are expanding their tuna fishery, and in Europe the Common Market has established an annual import quota of 25,000 metric tons for member nations in order to restrict tuna imports. Concerning domestic consumption of fish sausage, the Federation claims that the increase heretofore witnessed in Japan cannot be expected to continue, and that the world demand for tuna can be adequately supplied by expanding tuna bases abroad and increasing transshipments.

Japan (Contd.):

The views expressed by the Federation appear reasonable and seem to reflect widely the views shared by the tuna industry, reports the Suisan Tsushin. However, it cannot be denied that currently a world-wide shortage of tuna exists and tuna prices are abnormally high, and there does not appear to be a ready solution to this problem. (Suisan Tsushin, May 2, 1962.)

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YEAR-ROUND TUNA FISHING LICENSES GRANTED TO FORMER SALMON FISHING VESSELS:

The Japanese Fisheries Agency has decided to grant year-round tuna fishing licenses to the 50 fishing vessels that were withdrawn from the salmon fishery in 1960. The 50 vessels had previously been allowed to engage in tuna fishing for only nine months of the year, and remained idle for the remaining three months. (Suisan Keizai Shimbun, April 22, 1962.)

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FISHERIES AGENCY CONSIDERING PLANS TO AUTHORIZE DISPLACED SALMON VESSELS TO FISH FOR TUNA:

The Japanese Fisheries Agency reduced the size of the salmon fleet by a total of 121 salmon vessels this year and has, for some time, been studying ways in which these vessels could be compensated and used in some other fishery. Apparently, the Agency intends to assign these displaced salmon vessels to the tuna fishery and is reported to be considering the following methods for doing this:

1. Salmon vessels licensed by the Minister of Agriculture and Forestry (vessels over 30 tons gross) which quit salmon fishing altogether will be granted year-round 95-ton tuna vessel licenses.

2. Salmon vessels licensed by prefectural governors (5- to 30-ton vessels) which quit salmon fishing altogether will be granted year-round 70-ton tuna vessel licenses.

3. Fishing vessels temporarily withdrawn from the salmon fishery will be granted 6-month 85-ton tuna vessel licenses.

Evidently, the Fisheries Agency does not intend to grant distant-water tuna-vessel (over 100 tons) licenses to the vessels displaced from the salmon fishery.

As of May 1, 1962, 6 salmon vessels announced that they would quit salmon fishing altogether and 4 vessels announced plans of temporarily withdrawing from the salmon fishery. Based on this sample of 10 vessels, it is estimated that an equivalent of 9,500-9,700 tons of tuna vessel licenses will be granted to salmon vessels displaced from the salmon fishery this year. (Suisan Tsushin, May 2, 1962.)

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GOVERNMENT ISSUES REGULATIONS ON DISPLACED SALMON VESSELS PLANNING TO FISH TUNA:

The Japanese Fisheries Agency announced on May 28, 1962, its official policy concerning the granting of tuna fishing licenses to the 122 salmon fishing vessels displaced from the salmon fishery this year. According to the Agency, tuna-fishing licenses will be granted only to those displaced salmon fishing vessels which submit applications to engage in tuna fishing, in which case the regulations shown below will apply:

1. Salmon fishing vessels engaged in the mothership-type salmon fishery and salmon fishing vessels over 30 tons gross engaged in the land-based salmon fishing which plan to quit salmon fishing permanently will be granted year-round under-100-ton tuna vessel licenses. Applications notifying their intentions must be submitted before March 31, 1963.

2. Salmon fishing vessels over ten tons gross but less than 30 tons gross engaged in the land-based salmon fishery which plan to quit salmon fishing permanently will be granted year-round under-70-ton tuna vessel licenses. Applications notifying their intentions must also be submitted by March 31, 1963.

3. Salmon fishing vessels engaged in the mothership-type salmon fishery and in the land-based salmon fishery which do not plan to quit salmon fishing permanently will be granted 6 months 85-ton tuna vessel permits. The permits must be used between the period beginning May 26, 1962, and ending March 31, 1963, and will be effective for a continuous 6-months period from the date of their issuance. (Suisan Tsushin, May 29, 1962.)

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Japan (Contd.):

SALMON FLEET BEGINS FISHING IN WATERS SOUTH OF 45° N. LATITUDE:

On April 30, 1962, a total of 702 land-based Japanese salmon fishing vessels (333 gill-net and 369 long-line vessels) left Hokkaido for the northwest Pacific salmon fishing grounds south of 45° N. latitude, according to a translation from the Japanese periodical Suisan Keizai Shimbun, May 1, 1962. Authorization from the Japanese Government was issued on April 29 for the fleet to engage in gill-net and long-line salmon fishing. The Japanese Government's decision to authorize salmon fishing in the waters south of 45° N. latitude was based on the fact that those waters lie outside the area regulated by the Japan-Soviet Northwest Pacific Fisheries Convention; thus they are not subject to Treaty restrictions. Also, fishing in the unrestricted area could not be delayed any longer since the salmon had already arrived in that area. The Soviet Government was formally notified of the Japanese decision.

Pulling aboard and removing salmon from a gill net aboard a Japanese vessel in the North Pacific.

Departure of the Japanese land-based salmon fleets was delayed by 10 days this year due to the deadlocked Japan-Soviet fishery negotiations in Moscow. The Japanese Government has set this year's salmon catch quota for the waters outside the Treaty area at 60,000 metric tons, which is about 20,000 tons less than last year's actual catch. The Government also reduced the salmon gill-net vessels by 20 percent (81 vessels) from last year's 414 vessels, and has issued rigid regulations to ensure compliance with the voluntary catch quota.

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COMPOSITION OF SALMON MOTHERSHIP FLEET:

The 11 Japanese salmon mothership fleets authorized by the Fisheries Agency to fish for salmon this year in Area A (waters north of 45° N. latitude) departed Hokkaido on May 15-16, 1962, for the fishing grounds in the Bering Sea and North Pacific Ocean. Fishing for those fleets is scheduled to end August 10.

Japanese Mothership Fleets Authorized for 1962 Salmon Season

Mothership Fleet	Size
	Gross Tons
Kyoho Maru	7,158
Kizan Maru	8,626
Meisei Maru	8,336
Meiyo Maru	7,153
Kashima Maru	7,163
Otsu Maru	8,033
Miyajima Maru	9,598
Shinano Maru	8,907
Chiyo Maru	7,653
Jinyo Maru	7,200
Kyokuzan Maru	10,912

Catcher vessels assigned to the 11 motherships this year were reduced by 10 percent from last year's 410 vessels. Also, the mothership fleets were reduced by one from last year's 12 fleets. (Suisan Keizai Shimbun, May 16, 1962.)

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SALMON INDUSTRY RESTRICTIONS ON USE OF GILL NETS BY MOTHERSHIP FLEETS:

The Northern Waters Salmon Mothership Council (composed of fishing companies operating salmon motherships) and the National Federation of Salmon Fishing Cooperative Associations or NIKKEIREN (which represent vessel owners of gill-net fishing ves-

Japan (Contd.):

sels assigned to the salmon motherships) have agreed on the following policies concerning this year's mothership-type salmon operations in the North Pacific:

1. Each catcher vessel will carry not more than a total of 330 "tans" (unit of Japanese shackle about 180 feet long) and not more than 40 kilograms (88 pounds) of salt. (Editor's Note: Limit placed upon salt each catcher vessel can carry is apparently to restrict "home packs" of salted fish.)

2. Each vessel will carry not more than 165 "tans" of nets with knot-to-knot mesh size of 60 millimeters (about 2.4 inches) and not less than 165 "tans" of nets with knot-to-knot mesh sizes of 65 millimeters (about 2.6 inches).

3. Extra supplies of gill nets will be carried by the motherships. Transfer of nets from mothership to catcher vessel to replace lost nets will be conducted after approval for such transfer has been granted by the Fisheries Agency inspector aboard the mothership. Transfer of nets from mothership to catcher vessel in exchange for damaged nets will be conducted in the presence of the Fisheries Agency inspector on board the mothership.

4. When catcher vessels enter certain areas where the use of only 264 "tans" of gill net is authorized, the "extra" 66 units of gear carried by catcher vessels must absolutely not be used. (Shin Suisan Shimbun, May 14, 1962.)

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SALMON INDUSTRY'S VIEWS OF NORTH PACIFIC FISHERIES CONVENTION:

The Japanese periodical Suisan Keizai Shimbun of May 15, 1962, states that Japan will soon be in a position where it can withdraw from the International Convention for the High Seas Fisheries of the North Pacific Ocean (Japan, Canada, United States), if it wishes. The Japanese salmon industry hopes to formulate its position on this matter before the Japanese Government does, so that the will of the industry will be reflected in the Government's policy. For this reason, the salmon industry plans to form a committee about July this year to thoroughly study the Treaty problems confronting the salmon industry, as well as to consolidate views within the industry.

According to Suisan Keizai Shimbun, an organization called the Japan-U.S.-Canada Fisheries Treaty Study Society was formed in June last year. This Japanese group included fishery scientists and experts in international law from the Fisheries Agency, Foreign Ministry, and industry to study the Tripartite Treaty problems objectively from a scientific point of view. The Society is currently collecting and evaluating facts relating to the circumstances leading to the conclusion of the Treaty and to the establishment of the abstention line (175° W. longitude), which prohibits the Japanese from fishing east of that line, as well as the attitude of the United States at the time the Treaty was concluded. Based on biological and legal studies related to the abstention line, the report is expected to include a study of the propriety of the provisional abstention line from the standpoint of the Law of the Sea and points which Japan should be aware of in relation to that line. The Society plans to submit its findings and recommendations to the Japanese Government and to the fishing industry by the end of June this year.

The salmon industry plans to carefully study this report in determining its attitude regarding the Convention. Some members of the salmon industry feel that, instead of creating an independent committee to study the Tripartite revision problem, a committee should be formed to study the fishery problems of the Northern Waters (Okhotsk Sea, Bering Sea, and the North Pacific Ocean), and to include within that committee the special Japan-Soviet Fisheries Committee, which was organized to study fisheries problems relating to Japan and the Soviet Union.

Apparently, opinions within the Japanese salmon industry concerning revision of the Japan-U.S.-Canada Fisheries Treaty are divided into two groups: one group is urging a firm attitude, and the other favors adopting a moderate attitude. The National Federation of Salmon Fishing Cooperative Associations (NIKKEIREN), which is composed of owners of gill-net vessels assigned to salmon motherships, advocates a firm stand, claiming that the abstention line is a disgrace upon Japan and must be removed by all means. NIKKEIREN feels that if Japan agrees to renew the present Treaty without any modification, it will exert an extremely adverse effect on negotiations to be held with the Russians, when the Japan-Soviet Fisheries Treaty expires four years hence. On the other hand, another group within the salmon industry supports a moderate stand, maintaining that Japan's insistence on eliminating the abstention line might irritate the United States and Canada and result in those countries imposing severe import restrictions on Japanese canned fish products and frozen tuna. By and large, the opinion within the salmon industry supports abrogation of the present Treaty and renegotiation of a new treaty.

The Suisan Keizai Shimbun states that the Japanese Government hopes to formulate a provisional policy concerning the Tripartite Convention before the interim meeting of the International North Pacific Fisheries Commission convenes in August this year in Honolulu, taking into due consideration views prevailing within the Japanese salmon industry, the international fishery situation, and fishery resource problems. Should the three countries, Japan, Canada, and the United States, renegotiate a new treaty, the debates will most likely center around the problems of the abstention line, species placed on the abstention list, and admission of the Soviet Union to membership in the new treaty.

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FIRM EXPANDING FISH MEAL OPERATIONS OFF ANGOLA:

The Japanese fishing firm which conducted mothership-type fish-meal operations off Angola (for three months beginning in December 1961) is reported planning to expand its fishing operations off Angola. On May 16, 1962, the freezership Kaikei Maru (1,156 gross tons) was sent to Angolan waters. In advance of the Kaikei Maru, two draggers (Koshin Maru No. 1 and No. 2, each 120 gross tons) were dispatched to the Atlantic Ocean in early May. The draggers are scheduled to deliver their catches to the Kaikei Maru for freezing and processing.

Japan (Contd.):

The Kaikei Maru is to be replaced by the freezership Seiju Maru No. 3 (1,184 gross tons), which was scheduled to depart for the waters off Angola in mid-July. In addition to these two freezerships, the firm is reported to be planning on dispatching a third freezership, Tosa Maru (2,000 gross tons), to the same waters.

Japanese fish-meal factoryship Renshin Maru.

The same firm as of May was operating two large fish meal factoryships in the eastern Bering Sea--the vessels Renshin Maru (14,094 gross tons) and the Kinyo Maru (9,373 gross tons). At the end of the Bering Sea fishing season in October, one of the two factoryships is scheduled to be sent to the waters off Angola on the west coast of Africa and the other to the waters off Mozambique on the east coast of Africa to conduct fish meal operations. (Suisan Tsushin, May 15, 1962.)

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EXPORTS OF PRINCIPAL CANNED FISHERY PRODUCTS, 1961:

Japanese exports of principal canned fishery products in 1961 were substantially lower than in 1960 both in quantity and value.

Japanese Exports of Principal Canned Fishery Products, 1961

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

Note: Based on Japanese Customs statistics.

Exports of salmon and trout, mackerel-pike, sardines, and crab meat were down in 1961.

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EXPORTS OF SELECTED FISHERY PRODUCTS, 1961:

According to statistics compiled by the Finance Ministry, Japanese exports of agricultural and fisheries products during 1961 amounted to US$482,100,000--a decrease of 0.7 percent from the previous year. The main reason for the decrease was attributed to greatly decreased exports of canned salmon to Great Britain.

Due to the increase in demand in the United States and Europe, prices rose. Frozen tuna exports particularly increased.

Table 1 - Japan's Exports of Selected Fishery Products, 1960-61

Product	1961		1960	
	Metric Tons	US$ 1,000	Metric Tons	US$ 1,000
Frozen Fish:				
Tuna	137,962	39,621	132,020	35,347
Broadbill swordfish	9,625	6,650	7,988	5,336
Salmon and trout	1,338	1,360	2,399	2,537
Fish meal	4,850	725	6,277	819
Pearls	61	35,787	54	30,480
	1,000 Cases	US$ 1,000	1,000 Cases	US$ 1,000
Canned:				
Salmon and trout	1,260	37,094	1,776	57,369
Tuna	3,701	29,734	3,386	25,377
Mackerel	938	3,501	497	1,628
Mackerel-pike	405	2,187	1,045	5,786
Sardines	313	2,451	815	5,475
Horse mackerel	628	4,284	-	-
Crab meat	496	11,856	520	11,660

While canned salmon exports to Great Britain decreased, canned horse mackerel and mackerel exports increased. But exports of canned sardine and mackerel-pike were less due to a scarcity of fish. Steady demand in the United States caused canned tuna exports to increase somewhat and high export prices on canned crab meat prevented a decrease in the value of those exports. (Suisan Keizai Shimbun, May 9, 1962.)

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JAPANESE FIRM SEEKS TO OPERATE TRAWLER IN NORTH ATLANTIC:

A Japanese fisheries company, affiliated with a large Japanese fishing company, is reported to be seeking the Fisheries Agency's permission to operate a 2,000-ton trawler in the North Atlantic Ocean. The company hopes to export its catches to Denmark, but the Fisheries Agency has shown very little enthusiasm for the plan. The Agency feels that expansion of Japanese fishing operations into the North Atlantic where many European nations are engaged in fishing may create international problems, according to a translation from the Japanese periodical Shin Suisan Shimbun, April 23, 1962.)

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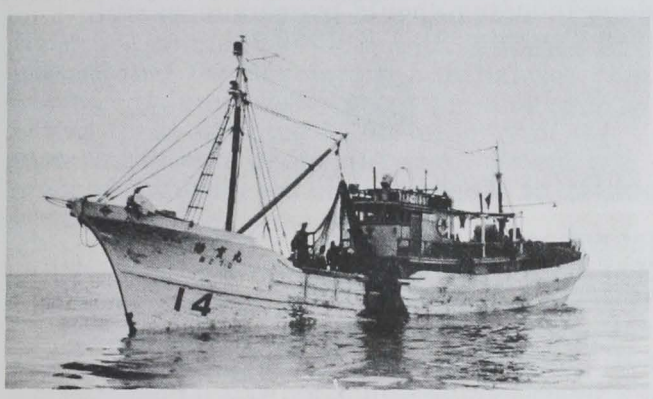
Japan (Contd.):

GOVERNMENT TO PROTEST SEIZURE OF FISHING VESSELS OFF ALASKA:

A Japanese press report dated May 7, 1962, states that the Japanese Government is expected to lodge a protest with the United States Government against the seizure by Alaskan State authorities of the two Japanese fishing vessels, Ohtori Maru No. 5 and Shoichi Maru No. 7. The two fishing vessels, belonging to the Banshu Maru No. 31 mothership fleet, were fishing for herring in the Shelikof Strait when seized.



Typical Japanese trawler that operates together with a mothership.

The Japanese Government intends to protest the seizure of the two fishing vessels based on the fact that Japan does not recognize the State of Alaska's claim over certain waters and that the seizure was contrary to the principle of freedom of the high seas. According to the report submitted to the Fisheries Agency by the company which operated the seized fishing vessels, the Banshu Maru No. 31, mothership of the fleet, definitely did not violate United States territorial waters, but the two seized vessels, Ohtori Maru No. 5 and Shoichi Maru No. 7, may have done so.

Validity of the State of Alaska's claim that certain waters are inland waters will not be known until the trial involving the seizure of the Japanese fishing vessels is held. The trial was originally scheduled for early May. The Fisheries Agency expects this matter to be settled by the end of October 1962. If it is established that United States territorial waters were violated, then the company operating the vessels is expected to pay a fine.

The two captains of the seized vessels and the captain of the mothership who were arrested have been released on bail. For their trial, the Japanese company expects to have a Government-appointed lawyer represent them. (Shin Suisan Shimbun Sokuho, May 2; Suisan Tsushin, May 7, 1962.)

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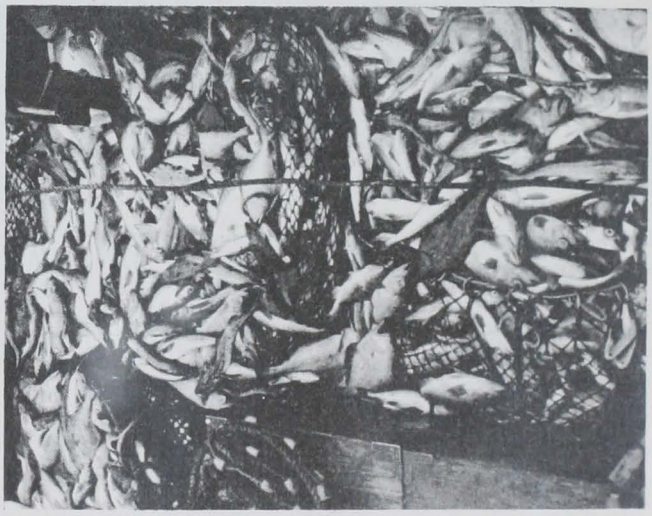
FISHING ACTIVITIES IN BERING SEA:

A trawler fleet, consisting of the mothership Seifu Maru (8,269 gross tons), 28 catcher vessels, and the refrigerated carrier vessel Fuku Maru No. 7, departed for the Bering Sea fishing grounds. This year the Seifu Maru's processing and freezing capacities were increased and the number of catcher vessels assigned to it was increased by 6 vessels to a total of 28 vessels, compared with 22 vessels last year. The 28 catcher vessels, led by the refrigerated carrier, departed from Kushiro, Hokkaido, on May 3, 1962, and expected to rendezvous in the Bering Sea with the mothership, which departed Hakodate, Hokkaido, on May 9. (Suisan Tsushin, May 11, 1962.)



Typical catch aboard a Japanese trawler in the Bering Sea.

The bottomfish factoryship Shikishima Maru (10,100 gross tons) departed Hakodate, Hokkaido, for the Bering Sea on May 14, accompanied by one large and 16 small trawlers. Catch target for this fleet is 25,000 metric tons of fish. (Shin Suisan Shimbun Sokuho, May 9, 1962.)

The shrimp factoryship Einin Maru (7,482 gross tons) which departed Yokosuka on April 19, is now operating in the waters north of the Pribilof Islands. The Einin Maru's production since early May totaled approximately 20,000 cases of canned shrimp. (Shin Suisan Shimbun Sokuho, May 15, 1962.)

The Japanese fishing vessel Ao Maru (365 gross tons), which arrived in the Olyutorski

Japan (Contd.):

area in late April, reports that halibut fishing is good. The Ao Maru is reported to be fishing southeast of Cape Olyutorski along 60° N. latitude, according to a translation from the Japanese periodical Suisan Keizai Chimbun, May 15, 1962.

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JAPANESE MINISTER DISCUSSES KELP UTILIZATION WITH PREMIER KHRUSHCHEV:

Japanese Minister of Agriculture and Forestry Kono, who visited Moscow early in May 1962 to break the deadlock at the sixth International Northwest Pacific Fisheries Commission meeting, met Soviet Premier Khrushchev at the Kremlin on May 7. During this meeting, Minister Kono reportedly brought up the question of utilizing kelp found in the waters off Habomae and Shikotan in the Kurile Islands (now under Soviet jurisdiction). Hoping to conclude an agreement which would permit Japan to utilize this marine product, Minister Kono pointed out the fact that the Soviet Union has very little use for kelp, whereas in Japan its use is very extensive.

Both parties are reported to have reached an agreement in principle, but the Soviet leader is said to have expressed concern over the possibility of intelligence activities being conducted on the pretext of harvesting kelp. To this, Minister Kono reportedly proposed the institution of some kind of system, such as a license system, requiring Japanese vessels to purchase licenses to operate in the areas near the above-mentioned islands. Implementation of this agreement will mean that Japanese coastal fishermen, who have always been confronted with the problem of having their vessels seized by the Russians, can operate in safety. (Nippon Suisan Shimbun, May 9, 1962.)

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FISHING COMPANIES INTERESTED IN BUILDING FISH SAUSAGE PLANTS ABROAD:

Several large Japanese fishing companies are reported to be planning on establishing fish sausage plants in foreign countries. One of them has been working since 1961 with a plan to establish a fish sausage plant (daily production capacity: 50,000 sausages) at Curacao (an island belonging to the Netherlands) in the Caribbean Sea. In addition to this company, another large fishing company is said to be contemplating construction of a sausage plant in Brazil. Another large fishing company is currently surveying Guatemala in Central America and Ghana in Africa with a view to constructing fish sausage plants in those countries.

Marketing studies conducted by the companies reveal that many countries in Africa, South America, and Southeast Asia prefer low-priced sausages. Fish-sausage sampling programs were conducted in those areas and the products were well received, indicating that the overseas expansion of the Japanese fish sausage industry should prove successful. (Suisan Tsushin, May 1, 1962.)

Republic of Korea

FIRM OBTAINS LOAN TO BUILD SIX TUNA VESSELS:

The South Korean firm, which presently is operating two tuna vessels out of American Samoa under contract to the large United States tuna packing company which operates a tuna cannery in that Island, has obtained a foreign loan of US$820,000 to build six 120-ton tuna vessels. This was according to a report in a South Korean publication. Source of this loan has not been disclosed. It is not yet known whether orders for the construction of the six vessels will be placed with Japan. The six tuna vessels are expected to be dispatched to Samoa upon their completion.

The South Korean firm is reported to own an additional 3 distant-water tuna vessels besides the two operating out of Samoa. Completion of the six tuna vessels will increase the company's tuna fleet to a total of 11 vessels.

Reportedly, the United States firm operating the cannery in American Samoa is arranging to have South Korean fishing vessels deliver tuna to its cannery inasmuch as the catch quota of 12,000 short tons placed by the Japanese Government upon the Japanese tuna vessels delivering tuna to Samoa is inadequate to permit maximum use of its Samoan canning facilities. (Suisan Tsushin, May 21, 1962.)

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ITALIAN PROPOSAL TO EXPAND KOREA'S FISHING FLEET:

Early in February 1962 the Government of the Republic of Korea announced preliminary

Republic of Korea (Contd.):

agreement to a proposal by private Italian ship-building interests to grant a loan in the amount of US$100,000,000 for expanding and further developing Korea's fishing fleet. The proposal would add some 120,000 gross tons of modern fishing vessels, part to be constructed in Italian shipyards and part to be constructed in Korean shipyards using materials and equipment to be supplied by the Italian interests. As originally proposed the vessels would be supplied or constructed over a 3-year period and the loan would be payable in 6 to 7 years at 6 percent interest. Korean fishery agencies have been given major responsibility for developing a utilization plan and an implementation program and coordinating these with the fisheries part of the over-all 5-year economic development program previously announced by the military government.

Some part of the order for constructing fishing vessels in Italian shipyards could conceivably be insured under Italy's Martinelli Law. If it were to be so insured, it would then be eligible for financing at a reduced rate of interest. The problem is that the annual insurance ceiling under the Martinelli Law (presently $240 million of export contracts in any one year) is incapable of handling an export of this magnitude in view of other competing export contracts, and that any insurance coverage under the Martinelli Law for this order would have to be approved by the Italian Government. No indication has been made in Rome of the Italian Government's attitude toward this proposed contract nor whether it would try to secure the Parliamentary approval necessary to raise the insurance ceiling to handle this contract. If the contract is not insured under the Martinelli Law, higher cost and less comprehensive private insurance and ordinary commercial financing at a much higher rate of interest (in excess of 7 percent) would have to be found. What effect this might have on the prospects for the contract is presently unknown. (Reports of April 24, 1962, from Seoul and April 17, 1962, from Rome.)

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FISHING COOPERATIVES:

A Fisheries Cooperative Law (Law No. 1013) was promulgated on January 20, 1962. It abolishes the previous system of fishing organizations and authorizes the establishment of fishing cooperatives by local areas and by major methods of fishing, fisheries manufacturer's cooperatives, and a Central Association of Fisheries Cooperatives. Major difference between the new organizations and the fishing guilds are that membership is voluntary and requires individual investment, and a greater scope of functions, including fishery credit activities, may be performed. While providing a somewhat greater degree of self-determination, the cooperative organization will still be under quite complete Government control.

Malagasy Republic

FISHERY AGREEMENT WITH REPUBLIC OF CHINA BEING CONSIDERED:

The Malagasy Government is presently considering a draft fisheries cooperation agreement with the Republic of China. The proposal, suggested during the President of Malagasy's April visit to Taiwan, would replace the cooperation agreement between the two countries made in the third quarter of 1961.

According to the new proposal, which was drafted by the China Fishery Corporation, four 120-ton fishing vessels belonging to the Corporation would operate for training purposes in Malagasian territorial waters. If successful, additional vessels would be sent. The Malagasy Government would provide the fishing base for the fleet. Part of the catch would be sold to local canneries and the balance exported. Any profits would be shared. (United States Embassy, Taipei, report of May 11, 1962.)

Malaya

FROZEN TUNA TRANSSHIPMENTS TO UNITED STATES FROM PENANG BASE:

The Japanese Overseas Fisheries Company, which manages the joint Japanese-Malayan tuna-packing plant at Penang, Malaya, has begun to accept shipments of fresh and frozen tuna for transshipment to the United States. In April 1962, 200 tons of frozen tuna of a total of 320 tons landed at Penang were transshipped to the United States through a Japanese exporting firm, and the remainder shipped to Japan because they were unsuitable for export.

Malaya (Contd.):

Tuna vessels that were expected to return to Penang late in May were the Seishu Maru No. 1 (308 gross tons) and the Hoyo Maru (280 gross tons), both belonging to the Mie (Prefecture) Tuna Cooperative Association. In early August, the Seiju Maru No. 5 (340 gross tons), Seishu Maru No. 2 (409 gross tons), Chosho Maru No. 3 (340 gross tons), Kotoshiro Maru No. 11 (354 gross tons), and the Seishu Maru No. 11 (314 gross tons) are expected to return to Penang, each with 200-300 tons of frozen tuna. In addition, 2 or 3 other vessels were expected to bring fish into Penang in May, and 3 or 4 in June. Besides the mentioned vessels, other fishing vessels known to be fishing for the Penang base are Kompira Maru No. 1 (240 gross tons), Kinei Maru No. 3 (226 gross tons), and Zuiho Maru No. 11 (180 gross tons).

The Malayan plant reportedly is purchasing tuna from the fishing vessels at prices averaging 100-120 yen per kilogram (US$252-302 per short ton) for unsorted frozen fish and 85 yen per kilogram ($214 per short ton) for fresh fish. To supply the Penang base with fresh tuna for freezing and transshipment to the United States, the Fuku Maru No. 2 (200 gross tons), which was on its way to the fishing grounds in the Indian Ocean, was expected to bring in its first load of fresh tuna in June. (Shin Suisan Shimbun Sokuho, May 8, 1962.)

Editor's Note: The Overseas Company was authorized by the Fisheries Agency on April 18 to permit landings at Penang of 6,000 short tons of fresh tuna for freezing at the tuna-packing plant's shore facilities in Penang for transshipment to the United States. The Fisheries Agency also authorized on the same day a quota of 4,000 short tons of Indian Ocean frozen tuna for transshipment to the United States from either Penang or Singapore.

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EX-VESSEL TUNA PRICES AT PENANG:

The following ex-vessel tuna prices were paid in May 1962 at Penang by the Overseas Fisheries Company, which operates the joint Japanese-Malayan tuna-packing company at Penang (for fish described as second class, i.e., not in prime condition), according to a translation from the Japanese periodical Shin Suisan Shimbun Sokuho, May 31, 1962.

Product	Price	
	Yen/Kg.	US$/Short Ton
Clipper-caught fish:		
Albacore	130	328
Yellowfin (gilled & gutted):		
20 to 100 lbs.	110	277
100 to 120 lbs.	100	252
Big-eyed fillets	100	252
Iced fish:		
Albacore	106	267
Yellowfin (gilled & gutted):		
20 to 100 lbs.	100	252
Big-eyed (gilled & gutted):		
Over 40 lbs.	70	176

Mauritania

SPINY LOBSTER INDUSTRY:

The spiny lobster season: (a) green lobster (Palinurus regius) netted along Rio de Oro coast, June, July, August, and September; (b) red lobster (Palinurus mauritanicus), netted from small fishing boats or taken by lobster trap in depths from 30 to 100 meters (98 to 328 feet) from October until June, especially November-January, and March-May.

Mauritania's Exports of Spiny Lobsters, 1959-1961

Year	Live		Frozen Tails
	Red	Green	
	(Metric Tons)		
1961	955	228	783
1960	661	311	670
1959	232	347	373

The catch of spiny lobster was 1,650 metric tons in 1959, 3,100 tons in 1960, and 3,500 tons in 1961. There is no shrimp fishing in Mauritania. (United States Embassy, Dakar, May 2, 1962.)

Mexico

SHRIMP LANDINGS, 1961:

The 1961 shrimp landings (heads-on or live-weight basis) in Mexico were probably about 74,000 metric tons--an increase of about 9 percent over 1960 landings. This makes four record years in a row for Mexican shrimp landings. As

Mexican Shrimp Landings by Areas, 1958-61

Area	1/1961	1960	1959	1958
	(Metric Tons, heads-on weight)			
West Coast	50,836.5	50,614.6	44,233.8	36,197.2
East Coast	14,878.2	17,372.0	16,803.3	16,073.3
Total	65,714.7	67,986.6	61,037.1	52,270.5
Percentage landed on West Coast	77.4	74.4	72.5	69.2

1/Eleven months January-November. Preliminary data subject to revision.

Mexico (Contd.):

in the previous three years, the latest increase also came from Mexico's west coast. The east coast landings have remained relatively stable since 1958 whereas those from the west coast have risen from 36,000 metric tons in 1958 to about an estimated 57,000 tons in 1961. At least three-fourths of Mexico's shrimp landings in 1961 were on the west coast. Shrimp probably accounted for about 40 percent of the 1961 total landings (live-weight basis) of edible fishery products.

Sinaloa in 1961 was the leading shrimp-producing State in Mexico, followed by Sonora, and Campeche. In 1960 Campeche outranked Sonora. (United States Embassy, Mexico, April 24, 1962.)

Morocco

FISHERY TRENDS, FIRST QUARTER 1962:

Fishery developments in Morocco during the first quarter of 1962 include the following:

1. Announcement by the Minister of Fiance and National Economy of the Government's intent to build a plant to manufacture fish flour for human consumption with a capacity capable of producing 700 tons in the first year.

2. The sales agency for Moroccan canned sardines (UCIC) planned to send two persons to the United States in May to explore the possibilities of increasing sales in the United States market.

3. The Government has informed the sardine canners association that the Government will allocate the 600,000-case duty-free quota for imports by France. One of the criteria in the allocation will be the degree of "Moroccanization."

Exports of canned fish for the annual season from June 1961through January 1962 were 1.87 million cases, the highest figure on record. Sardines accounted for 1.46 million cases, slightly below the previous year's 1.53 million cases, the highest year ever recorded. Tuna at 159,000 cases and "other fish" (chiefly mackerel) at 249,000 cases both hit new highs over a ten-year period.

The franc zone took 47 percent of the total exports--a drop from the monthly average established earlier in the year. This indicated that the free-quota limit for French imports had almost been reached (557,000 cases had been shipped out of the 600,000 quota). (United States Embassy, Rabat, report of May 2, 1962.)

Netherlands

FINAL RESULTS OF ANTARCTIC WHALING EXPEDITION:

The management of the Netherlands Whaling Company has released final figures on the catch of the Netherlands whaling expedition which operated in the Antarctic, headed by the whaling factory ship Willem Barendsz. The expedition terminated its hunting on April 15, 1962.

Netherlands Whaling Company Operations in Antarctic, 1961/62 and 1960/61 Seasons

Product	1961/62 Season	1960/61 Season
Whale oil	72,648 barrels (12,155 metric tons)	129,526 barrels (21,588 metric tons)
Sperm oil	17,440 barrels (2,918 metric tons)	10,248 barrels (1,708 metric tons)
Meat meal . . .	1,726 metric tons	3,947 metric tons
Frozen meat . . .	1,582 metric tons	2,692 metric tons
Meat for Japanese refrigerator ships	7,932 metric tons	5,187 metric tons

In 1961 the catch started on December 12, while during the previous season the catch started on November 28, 1960, and ended on April 6, 1961. (United States Consulate, Amsterdam, report of April 18, 1962.)

Note: See Commercial Fisheries Review, August 1961, p. 80.

Nicaragua

SHRIMP INDUSTRY TRENDS, FIRST QUARTER 1962:

The Pacific Coast port of Corinto continued to be the major fishing port during the first quarter of 1962. A large United States fishery firm operating out of that port has been harvesting shrimp at the rate of 200,000 pounds per month. The company's freezing and packing plant, representing an investment of US$400,000, will soon be completed.

Smaller operations, primarily for shrimp, are being conducted at Puerto Somoza (also on the west coast) and at El Bluff (on the east coast) by two Nicaraguan firms. The El Bluff operation on the east coast is on the upswing as ten shrimp vessels are fishing and more are scheduled to arrive in July.

A company on Corn Island continues to catch and ship substantial quantities of lobsters. (United States Embassy, Managua, April 30, 1962.)

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Nicaragua (Contd.):

SHRIMP AND LOBSTER FISHERY TRENDS ON ATLANTIC COAST:

Shrimp: The Nicaraguan shrimp firm in El Bluff on the Atlantic as of May 1962 continued to operate at considerably less than full plant capacity. The catch has been averaging about 100,000 pounds per month, and while there is no immediate expectation of rapid improvement, company activities appear to be stabilized on a basis that will permit continued operation of the plant.

A managerial shake-up earlier this year prompted by the accumulated complaints of creditors resulted in the ousting of the majority stockholder from his position as general manager. Officers of the Banco Nicaraguense are directing company operations. United States fishermen working out of El Bluff report that the present management is doing a more capable job than did the previous one but that it is unwilling, or unable, to spend the sums that would be needed to correct faults of the plant as originally constructed.

The El Bluff firm has almost no working capital and for this reason is now buying shrimp only from bay fishermen for sale in the Nicaraguan market. The preponderant part of the shrimp are caught by United States fishing vessels in coastal waters, and for these the firm acts only as a processor. An exiled Cuban purchases the shrimp from the trawlers, pays the firm to do the processing, and charters a boat to carry the frozen shrimp to New Orleans. The same Cuban operates five lobster boats which fish in the waters around the Corn Islands, but bring the catch to the El Bluff firm for processing. The firm would like to again purchase shrimp on a large scale, but will not be able to do this until such time as more working capital becomes available. No prospects of this are in sight.

As of May 1962 eight shrimp vessels from the United States were working out of El Bluff. Until March, the average catch per boat per month was over 14,000 pounds and the total amount processed monthly by the plant was slightly above 100,000 pounds. The majority of the shrimp caught are in the size groups of 21-25 and 25-30 count. With the temporary disappearance of the white shrimp, production had declined in May, but it was expected to revive again in July or August.

The El Bluff firm would like to attract more United States fishing vessels to El Bluff, but the present set-up would appear to place severe restrictions on the number of vessels that can be handled. Even with only eight vessels working, unnecessarily long delays in port have been reported. The company hopes to be able to lease additional wharf space from the Customs Authorities in El Bluff. Present freezing capacity of 12,000 pounds per day could be increased if conditions warranted it.

Corn Island Spiny Lobster Fishing: A Corn Island firm is exporting each month about 10,000 pounds of frozen spiny lobster tails to New York City via Panama. Earlier difficulties with the Government have largely ended and the company anticipates continued profitable operation. The other Corn Island company, after only two weeks of operation, closed late last year, and there is no expectation that it will reopen soon. As mentioned above, lobster vessels working out of El Bluff and the El Bluff plant also fish off the Corn Islands.

Dried Shrimp: An American is reported to be drying shrimp at Puerto Cabezas for export to the United States. Shrimp are bought from local bay and lagoon fishermen. A similar operation continues at Pearl Lagoon north of Bluefields. (United States Embassy, Managua, report of May 18, 1962.)

Norway

FISH-FREEZING PLANTS SALES, 1961:

Some 90 Norwegian fish-freezing plants now belong to the joint sales organization Norsk Frossenfisk A/L. The products produced by the members are sold under one brand name and are distributed in 25 foreign countries. In 1961, the sales organization sold over 32,000 metric tons of frozen fish, valued at about Kr.110 million (US$15.4 million). This includes about 25,000 tons of fish fillets as against about 7,000 tons sold by Findus A/S, the other Norwegian sales organization.

For the first four months of 1962 sales of Norsk Frossenfisk were 45 percent ahead of 1961. The Chairman of the Board of Directors of the sales organization observed that, in his opinion, a further expansion of Norway's frozen fish export is not primarily a question of capital. The affiliated freezing plants have a combined annual capacity of some 100,000 tons. Due to the inadequate supply of raw material, less than half of that capacity is utilized. Thus, it should not be necessary to spend a lot of money on new production facilities. The sales organization has a distribution system in all major countries which conceivably could use more Norwegian frozen fish, said the Chairman. (News of Norway, May 31, 1962, of the Norwegian Information Service.)

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THREE-NATION FIRM TO TAKE OVER FISH FREEZING PLANT IN NORTH NORWAY:

An agreement on establishment of a Norwegian-Swedish-Swiss corporation, to take over and greatly expand operations of the North Norway fish deep-freezing firm A/s findus, was announced in Oslo early in May 1962. The new Findus International S/A, to have its headquarters in Switzerland, has been formed by the Norwegian company A/S Freia--parent company of A/S Findus, the Swedish A/B Maribou in which Freia owns a majority interest, and the world-wide Swiss concern Nestle, with the latter as main stockholder. With a capital stock of Swiss francs 175 million (US$40.4 million), Findus International will engage in production and sales of all types of frozen foods. It will take over all activities now conducted by A/S Findus in Norway, Sweden, Denmark, Great Britain, and other countries. Transfer of Freia and Maribou-owned shares from A/S Findus to Findus International S/A will require the approval of Norwegian authorities.

The president and managing director of A/S Freia stated at a press conference in Oslo that the Findus fish filleting and freezing plant at Hammerfest will be the pilot plant for greatly expanded operations. The present processing capacity, which runs about 25,000 metric tons a year, will be merely a modest beginning. As soon as possible, efforts will be made to obtain additional supplies of raw material. In an interview with Arbeiderbladet, he said that consideration of

Norway (Contd.):

relations between the two European trade areas had not been of decisive importance in evaluating prospects for Findus International. He disclosed that Freia and its Swedish subsidiary, with 20 percent of the capital stock in the new company, will have 2 of the 5 members on the Board of Directors. The various foreign subsidiaries of A/S Findus will retain their present status. And its Hammerfest plant will continue under Norwegian management.

Findus International figures on investing the equivalent of about Kr. 600 million (US$84 million) to expand facilities for production and distribution of frozen foods. A part of this amount will be allocated to fish processing. If the per capita consumption of fish in Western Europe could be raised to the same level as in Scandinavia, approximately 2.2 pounds a year, he predicted that the Norwegian fishing industry would have a difficult time meeting the demand.

News of the establishment of Findus International was greeted with mixed feelings in North Norway. The Chairman of the Norwegian Fisherman's Association told Arbeiderbladet that he read the newspaper reports with considerable concern. In his considered opinion, the plan could lead to monopoly control of fish buying in Finnmark. Rep. Johs. Olsen, who is chairman of the Norwegian Parliament's Fisheries Committee, said that if foreign capital was needed to expand Norway's fishing industry, he would rather that it be obtained through cooperation with Sweden.

A different view was expressed by the director of the District Development Fund. Generally speaking, he opined that in the long run it was not possible to maintain a satisfactory level of economic activity in North Norway without expansion of the fishing industry. And that, he suggested, could best be achieved through a division of labor between several countries. He welcomed hints that Findus International would contract for deliveries from other plants. If small plants could be drawn into the production by supplying block-frozen fish for further processing, this would be of great importance, he said.

The vice chairman of Frionor, by far Norway's largest producer and exporter of frozen fish, said the cooperative sales organization will have to prepare for sharper competition, both in regard to the supply of raw material and sales in foreign markets. With a chain of associated freezing plants along the coast, Frionor is in a fairly good position. The organization has also established a number of foreign subsidiaries. And for distribution of Frionor fish products in the Netherlands, Belgium, and Luxembourg, it has a cooperative arrangement with a large Dutch packing firm. But to meet competition from Findus International, Frionor will need more funds for sales promotion, he declared. (News of Norway, Norwegian Information Service, May 10, 1962.)

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PROHIBITION URGED ON FOREIGN FISHERY LANDINGS AND PROCESSING:

A seven-member Norwegian Government appointed committee has urged that present regulations be tightened to prohibit foreign fishing operators from landing fish for sale in Norway, regardless of what type of gear they might use. According to recommendations outlined in the 81-page Committee report, the Government would be authorized to make exceptions if necessary to assure steady employment and sales, provided it would not hurt Norwegian fisheries. Exemptions should be limited to specific fish species, specific districts, specific periods, and specific uses. Catches from wrecked fishing craft would also be exempted.

Under the recommendations, foreigners would not be permitted to process, package, or reload fish or fish products inside Norway's fishing zone. Six of the committee members would also deny Norwegian firms the right to sign agreements on contract processing for foreign fishing operators. One dissenting member would permit contract processing of herring and mackerel south of Bergen.

In the Committee's opinion, the superior quality of Norwegian fish and fish products should offer good prospects for maintaining exports, despite stiff competition in foreign markets. The main problem is to supply sufficient raw material for the frozen fish industry. Acquisition of more ocean-fishing vessels and development of better transportation facilities should enable Norwegian fishermen to meet the demand. Landing fish from foreign vessels should be permitted only in emergencies, says the Committee. (Norwegian News of Norway, May 24, 1962.)

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FIRM TO PRODUCE FISH FLOUR:

Fish protein concentrate or fish flour suitable for human consumption will be produced on a trial basis at a new plant in Tjaereviken, near Bergen. The process has been developed by scientists at the Norwegian Fishery Directorate's Chemical-Technical Research Institute.

Initially, the fish flour produced will be tested on calves and other sensitive animals. (News of Norway, Norwegian Information Service, May 10, 1962.)

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HERRING AND COD FISHERIES TRENDS:

Altogether 38,160 metric tons of cod were landed in this year's Lofoten fishery, as compared with over 41,000 tons in the 1961 season. Estimated first-hand value of the 1962 catch was about Kr. 40 million (US$5.6 million). Some fishermen finished up with shares ranging from Kr. 10,000-15,000 ($1,400-2,100), while others had far less to show for their hard work.

The winter herring fishery, off the Norwegian west coast, was also disappointing. Final

Norway (Contd.):

reports on the results show that the total catch was less than 90,000 tons, with a first-hand value of about Kr. 30 million ($4.2 million). This was not much of an improvement over the 1961 winter herring season which set an all-time low with a total catch of some 74,000 tons, worth about Kr. 24.7 million ($3.5 million). The 1962 catch was actually the second smallest since 1908. (News of Norway, May 10, 1962.)

Peru

FISH OIL INDUSTRY TRENDS:

The Fisheries Service of the Ministry of Agriculture calculates that there were 114 fish meal plants in Peru at the end of 1961, 101 of which produced crude fish oil as a result of the fish meal reduction process. These plants are of different sizes and degrees of efficiency, and the equipment they use is as varied as the number of plants operating. The large expansion of Peruvian fish oil production noted in 1961 is attributable to the following: increase in the number of reduction plants; enlargement of individual oil plant capacities; and improved machinery installations (largely Swedish) by numerous plants.

Only 10 producers of crude fish oil are prepared to handle refined oil for sale for domestic consumption and export. One of these, which is among the largest companies, does not have its own refining facilities, but has an arrangement with one of the nine existing refineries for converting its crude oil into the refined product. Somewhat at variance with the report from Copenhagen that plant operators are working on a proposal to pay refiners for refining services and to market the oil themselves, was a statement made by the managing director of a large fish meal firm in Lima about the existing situation. He said many of the Peruvian producers of crude oil depend upon income from their sales of crude oil to the refineries for paying current expenses, including wages. Therefore, the majority of them would not be interested in changing the present system of selling their oil to refiners for one which would subject them to the vagaries of the international market and unduly delay their receipts from crude oil sales. Under the present system, the refiners assume the risks of the market.

The ten refiners in Peru formed an informal fish oil refiners committee in June 1961. There is only a "gentlemen's" or "verbal" agreement among them, no other form of organization. One of the advantages of the informal group is that its members are in a position to achieve savings in freight costs through the pooling of shipments and the chartering of tankers. Freight costs are $16 per metric ton for refined fish oil shipped to European ports in regularly scheduled shipping conference vessels, but the rate is $10 per ton in chartered tankers carrying 15,000 tons.

Another advantage the refiners' group has is the opportunity given its members to determine and maintain the price of their product. The chairman of the group suggested US$140 per ton (6.3 cents a pound) as a reasonable price for refined oil, c.i.f. continental European ports. A year ago, the Peruvian price c.i.f. European ports was $132-$133 per ton (about 6 cents a pound). Peruvian refiners as of April 1962, agreed among themselves not to sell at less than $117.50 a ton (5.3 cents a pound) c.i.f. continental ports. At that price no sales were being made in April for future delivery. There appeared to be some concern that the Peruvian fish oil refiners will experience financial losses, since they are obligated to continue their purchases from crude oil producers, and they will continue refining and storing the product. The stocks in storage in April 1962 were said to be less than 10,000 metric tons.

A further sharp increase in Peruvian fish oil production is predicted for 1962 by some, but the chairman of the refiners group doubted that Peru's 1962 production would surpass that of last year. This he attributed to the fact that expansion plans are being held in abeyance for the present because of the existing world-wide fish oil situation and of the Peruvian political situation. There was a tendency to defer major expenditures until after the national elections, scheduled for June 10, 1962.

Peru's exports of fish oil (refined): Official statistics (table 1) show Peru's exports of fish oil in 1960 to have been 35,003 metric tons and 102,306 metric tons in 1961, an increase of 192.3 percent. The export value was 99.2 million soles ($3.7 million) in 1960 and 290.8 million soles ($10.9 million) in 1961, an increase of 193.1 percent.

Table 1 - Peru's Exports of Fish Oil (Refined) by Destination, 1960

Destination	Quantity	Value	
	Metric Tons	S/1,000	US$ 1,000
Belgium	40.0	126.5	4.7
Denmark	7,302.6	18,615.6	695.7
France	392.6	1,239.3	46.3
Germany	10,635.0	30,887.3	1,154.2
Italy	315.3	811.4	30.3
Netherlands	14,918.7	43,848.3	1,638.6
Norway	854.2	2,113.0	79.0
Sweden	544.5	1,521.9	56.9
Total	35,002.9	99,163.3	3,705.7

Note: Values converted at rate of 26.76 soles equal US$1.

For 1961, data collected by the National Fisheries Society (table 2) show Peru's fish oil exports to have been 98,088 metric tons, just 4,218 metric tons less than the official figure provided by the Statistical Department of the Callao Customhouse.

Peru (Contd.):

Table 2 - Peru's Exports of Fish Oil (Refined) by Destination, 1961

Destination	Qty.
	Metric Tons
Denmark	14,622
Germany	17,687
Netherlands	43,268
Norway	12,435
United States	825
Others	9,251
Total	98,088

There are no Government subsidies or other concessions applicable to the production or exportation of fish oil (or other fishery products), according to a United States Embassy, Lima, April 18, 1962, report.

* * * * *

FISH MEAL AND OIL INDUSTRY TRENDS, FIRST QUARTER 1962:

In February 1962, the Consorcio Pesquero del Peru S.A. (marketing organization for fish meal producers) completed one year of operation. There can be little doubt that this cooperative marketing organization, with 92 member companies representing 93 percent of Peru's fish meal production, is a primary factor in the stability which has characterized the Peruvian fish meal industry since the Consortium began operations in February 1961. The magnitude of its operations is clear when it is noted that Peru's exports of fish meal approach a value of US$50 million annually.

Peru has retained its rank as primary world producer of fish meal and continues to be accorded a quota equal to 60 percent of the world market by the Fish Meal Exporters' Organization. At the beginning of 1961, total world demand was estimated at one million metric tons, and Peru's quota was set at 600,000 tons. However, the total world demand for that year was closer to 1,250,000 tons and each country's quota was raised accordingly. Since some of the supplying countries could not fill their quotas, the unfilled allotments were divided between South Africa and Peru. By the end of the year, Peru's 1961 quota had risen to 750,000 tons. Official figures for 1961 show exports of 708,366 tons, valued at 1,328.6 million soles ($49.6 million), compared with 507,042 tons in 1960, valued at 1,056.4 million soles ($38.7 million). If world demand for 1962 approaches the figure mentioned recently of 1,350,000 tons, Peru's 60 percent quota would exceed 800,000 tons.

Data are not yet available on Peru's production or exports during the first three months of 1962. It is expected, however, that many plants were not able to maintain production during the period, which normally includes the best months for anchoveta (anchovy) because fishing was bad during that period in many places. Intermittent strikes of fishermen, bad weather, and the compulsory closing of most of the plants in the Lima-Callao area for at least a week in February for failure to install deodorizing equipment, no doubt contributed to a production lag which may be difficult to overcome. There was a report in mid-February that the Consortium had refused new orders, since those on hand would take all available supplies. As of April 1962, Peru's fish meal production for 1962 was estimated by the Consortium at one million tons, of which 750,000 tons would be for export.

The very substantial 192.2 percent increase in fish oil exports in 1961 (102,306 tons) compared with 1960 (35,003 tons) was an interesting development of the fisheries industry in recent months. A condition of overproduction has assailed the world market, however, and prices have dropped considerably. Ten Peruvian refiners of fish oil, members of an informal group which buys crude oil and refines it for export, have agreed not to sell at less than $117.50 (5.3 U.S. cents a pound) c.i.f. continental European ports. During the first quarter of 1962, it was reported that Peruvian refiners were making no sales at that price for future delivery, and there seemed to be concern that the refiners would experience financial losses. They are obligated to continue purchasing the crude oil, a byproduct of the fish meal reduction process in practically every fish meal plant in Peru, and to refine and store it. It was understood that Peruvian fish oil refiners expected to attend an international meeting of producers in Europe at the end of May, perhaps looking to the establishment of some sort of international organization similar to that in the fish-meal industry (the International Association of Fish Meal Manufacturers).

An interesting comment was made by an individual whose work at sea in the fisheries industry of Peru over a period of several years would seem to place him in a position to make a knowledgeable observation about the general situation. He said that, at the present rate of fishing (apparently meaning all types of fish, including anchoveta and tuna), there would be no fish at all in those waters within a few years, unless some form of conservation was instituted. Fishing this year, he said, is not ahead of last year, the tuna now being taken are much smaller than formerly, and fewer birds are being seen now because there is not enough food for them. (United States Embassy, Lima, report of April 30, 1962.)

Philippines

JOINT JAPANESE-PHILIPPINE TUNA ENTERPRISE TO BE FORMED:

A Japanese fishing company, located in the city of Kesennuma in northern Japan, has accepted the offer from a company of the Philippine Islands (a firm engaged in the loans and insurance business) to participate in a joint tuna venture in the Philippines. The president of the Japanese firm went to Manila on April 16, 1962, for preliminary discussions and a representative from the Philippine company was expected in Japan, at which time the agreement between the two companies was expected to be signed.

The joint tuna base reportedly is to be established on Coron Island, located nearby Manila, with a capital of 200 million yen (US$556,000). The Japanese company will invest 40 percent and the Philippine company 60 percent. The Japanese company plans to invest three tuna vessels, one of 200 tons gross and another of 150 tons gross, and one 85-ton converted tuna vessel which will engage in year-round fishing for tuna, deep-sea bass, and Spanish mackerel in the waters around Manila, Hong Kong, and Singapore.

The Coron Island base, which is now equipped with an ice plant capable of manufacturing 5 tons of ice per day, a 5-ton freezer plant, and a small cannery, is expected to be ex-

Philippines (Contd.):

panded if the joint enterprise proves successful. (Suisan Tsushin, May 10, 1962.)

Poland

MARINE FISHERIES TRENDS:

Landings, 1961: The Polish fishery plan for 1961 provided for a production of 173,268 metric tons of fish. The actual catch came to within 2 percent of that goal, when 169,375 metric tons of fish were caught. The reason for just missing the mark was the poor catches of Baltic cod which were 6,000 metric tons below the planned catch of 47,300 metric tons.

Polish fisheries consist of state, private, and cooperative enterprises.

Table 1 - Poland's Marine Fisheries Landings, 1961

Organization	Quantity
	Metric Tons
State enterprises	131,842
Cooperative enterprises	19,337
Private enterprises	18,196
Total	169,375

According to Soviet sources, the Polish State fishing enterprises had already fulfilled their portion of the 1961 quota--131,000 metric tons--by December 20, 1961. It may, therefore, be concluded that either the cooperative or private enterprises (or both) failed to attain their 1961 quota.

The average age in Poland is 31 years for state-employed fishermen, 36.4 years for cooperative fishermen, and 40 years for private fishermen. State-employed fishermen averaging only 6.5 years of fishing experience caught more fish than cooperative and private fishermen averaging 10 and 18.4 years of experience, respectively. Government support in investments, modern equipment, research, and education most likely contributed to the better catch record of the state-employed group.

Table 2 - Poland's Marine Fisheries Landings by Species, 1961

Species	Quantity
	Metric Tons
North Sea herring	78,178
Cod	41,106
Baltic herring	17,622
Mackerel	12,958
Sprats	11,342
Brackish-water fish	2,521
Flatfish	2,410
Redfish	2,378
Eel	298
Salmon	183
Other	379
Total	169,375

"Dalmor" Freezer, Stern-Trawler: Poland's large herring catch was due partly to the introduction in 1961 of Dalmor-type stern-trawlers. The Dalmor B-15 class is a fishing vessel of 2,890 gross tons, 85 meters (280 feet) long, 1,339 cubic meters (47,250 cubic feet) hold capacity, and 12.5 knots average speed. It is identical to the Soviet Leskov RRT-400 class vessel. Dalmor-type vessels are built at Polish shipyards in Gdynia on the Baltic Sea. They are designated Dalmor class if delivered to the Polish fleet and Leskov class if delivered to the Soviet fleet. The names Dalmor and Leskov were those of the first vessels of this type launched for each country.

Present plans call for the construction of a total of 35 vessels of this class; 20 will be delivered to the Soviet Union and 15 to Poland. At least 8 (Leskov, Mamin Sibiriak, Myr, Druzhba, Sputnik, and Lunik for U.S.S.R. and Dalmor and Kastor for Poland) were built in 1961. Construction of 9 vessels is scheduled for 1962. These vessels operate in the North and South Atlantic fishing grounds. During one 84-day trip, a Dalmor-type vessel caught 1,050 metric tons, or 12.5 tons per day, of fish; on another trip of 114 days, the catch was 2,160 metric tons, or 18.9 metric tons per day.

"Miedwie" Freezer-Trawler: Vessels of the B-20 class, called Miedwie class after its prototype, have also been constructed at the Gdynia shipyards. The first was launched in August 1961; by spring 1962, ten vessels had been constructed (Miedwie, Mielno, Mamry, Morag, Morskie Oko, Wigry, Wielczno, Sejno, Szczytno, and Gardno). Plans provide for five additional vessels to be completed by 1963. The Miedwie B-20 is about 750 gross tons, 61 meters (202 feet) long, and 10 meters (33 feet) wide. It has a crew of over 30 and a range of 3,000 miles and 45 days. Its hold capacity is 553 cubic meters (19,514 cubic feet); half is used for salted fish at 0° C. (32° F.) and half for frozen fish at -25° C. (-13° F.). The total cargo capacity is 280 metric tons. The B-20 moves at an average speed of 13 knots with a 1,375-hp. engine. Its winch has a traction capacity of 10 tons at a speed of 70 meters (230 feet) per minute. These trawlers are to be used in the North Sea and in Northwestern and South Atlantic herring and mackerel fisheries. Three B-20

Poland (Contd.):

vessels participated in the Georges Bank fishing in the early spring of 1962 (Miedwie, Mielno, and Mamry). All fishing on the B-20 is done to starboard. Part of the catch is frozen in blocks and stored in the freezer hold; the other part is salted and stored in barrels in the refrigerated hold.

Four B-20-1 vessels, a variant of the B-20, were sold to the French fishing industry.

The Poles have also finished the designs for a stern-trawler-class B-23, which will reportedly have twice the freezing capacity of the B-20. Plans for a B-24 class are also being prepared.

Outlook for Fisheries: The plan for 1962 provides for a catch of 182,000 metric tons. Expected production of fish fillets is 4,700 tons (a 45-percent increase over 1961); production of 19,900 tons of fish fillets annually is expected by 1965.

A long-term fishery development plan for the years 1961 to 1980 has been prepared. It provides for a total annual catch of 900,000 metric tons by 1980, and for an increase from 110,300 tons of fish products in 1960 to 530,000 tons in 1980. The export of fish products is planned to increase eight times by 1980.

Over 500 vessels are to be added to the Polish fishing fleet during the 1961-1980 period. Fishing area in the Atlantic by the Poles will be greatly expanded in northwestern, as well as tropical, waters. Considerable scientific and economic research will be necessary. The latter must justify the investments in long-range motherships, freezer trawlers, and factoryships by proving that fishing at such distances is profitable.

It is estimated that planned catches will increase Poland's per capita consumption of fish to 11.5 kilograms (24.2 pounds) by 1980. In 1960 it was only 4.3 kilograms (9.5 pounds), and in 1955 only 2.6 kilograms (5.7 pounds). The production of animal feed from fish will also greatly increase. (Peche Maritime, February 20, 1962; Zycie Warsawy, January 30, 1962; Polish Maritime News, February 1962; World Fishing, March 1962; various unpublished sources.)

Note: See Commercial Fisheries Review, November 1961 p. 63.

Portugal

CANNED TUNA INDUSTRY:

The Japan Export Trade Promotion Association (JETRO) in May 1962 released a report on the canned tuna industry in Spain and Portugal. A translation of the report on Portugal follows:

Production of canned fish products in Portugal in 1960 totaled 76,244 metric tons, of which 58,305 tons consisted of canned sardine and 9,341 tons canned anchovy, and those two products together comprised 90 percent of the total canned fish production. Canned tuna was the next leading canned fish product with 5,552 tons. Production of canned tuna has increased yearly since 1957 and the 1961 production represents more than a twofold increase over the 1957 production, which totaled 2,249 tons.

In Portugal there are 230 canneries employing about 18,000 workers. Production per worker is approximately 4.2 tons, which is similar to the output per worker in Spain, although the average number of employees per cannery is about double that employed at canneries in Spain. Ten percent of the canneries are located in the Madeira and Azores Islands, but the number of workers employed at those canneries corresponds to only four percent of the total cannery workers in Portugal. Other canneries are concentrated in Matozinhos, Setubal, Portimao, and Olhao, in Portugal proper.

Fifteen percent of Portugal's canned fish are produced by four large canneries and 85 percent are presumably packed by more than 200 other canneries, each of which is thought to produce less than one percent of the total canned output.

The can supply situation in Portugal is about the same as that in Spain, but since Portugal does not manufacture tin plate, it does not have the numerous problems confronting Spain, such as price and quality control, protective policy versus free trade, financial and tariff administration, and government aid for industrial development. Portugal imports 52 percent of its tin plate from France, 19 percent from England, 11 percent from Germany, and 10 percent from the United States. Production of cans is handled either by the canneries themselves or by cannery cooperatives.

Portugal imports a considerable quantity of raw tuna to supplement its domestic tuna supply, of which there is a tremendous shortage. Portugal's fish imports consist mainly of bluefin tuna, most of which are imported from Portugal's overseas possessions, as well as from Tangier (Spanish Morocco) and Morocco, where bluefin tuna are caught in great abundance and prices are low, and no hard money is needed to make payments.

In Portugal, price disputes between fishermen and canneries constitute the basic hindrance to the development of that country's canning industry. Unless the price problem is solved, the cost of the final product will rise since the packers cannot cut their other production costs, and this will place Portugal at a disadvantage in competing with other countries in the world tuna market.

Portugal's exports of canned tuna will face the obstacle of the European Common Market. Already there is increasing apprehension among Portuguese tuna packers that the Common Market will boycott their products. One other serious problem confronts Portugal, and that is the boycott on Portuguese products carried out by the new African nations. However, at the present stage of development, it is difficult to make any prediction as to how this boycott will affect Portugal's canned tuna industry.

Saudi Arabia

FISHERIES POTENTIAL:

The International Bank for Reconstruction and Development sent an Economic Study Mission to Saudi Arabia in 1960.

Saudi Arabia (Contd.):

The Mission's report Approach to the Economic Development of Saudi Arabia reported as follows on the Saudi Arabia fishing industry:

"Seafood can be a much more important item in the diet of the people of Saudi Arabia than it is at present. Most of the fish and other seafood are consumed fresh in the area in which they are caught, usually on the day of catch. Some fish is kept for short periods on ice and some fish is dried for inland sales. The canning and freezing of fish has not yet been developed.

"There is considerable potential for development in the fishing industry in Saudi Arabia. Even though there are several thousand fishermen on both the Red Sea and the Persian Gulf coasts, the industry is still in the early stages of development. Fishing activities are restricted in part by the type of vessel, the gear and equipment being used, but principally by the lack of marketing facilities such as those required for preservation and transport.

"Studies on fish and other seafood in the Red Sea and the Persian Gulf warrant further investigation by an independent expert in the field. It is recommended that the results of these studies be made available to the private sector for further development, and that the Government provide the necessary incentives to get the industry properly established... ."

A fishing company in Jidda has an exclusive concession for commercial fishing in Saudi territorial waters of the Red Sea. It is looking for a United States company which is experienced in fishing and processing fishery products to participate in the capital of the company and to undertake its technical management.

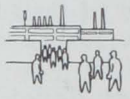
The company was organized in 1952 by HRH Prince MIT'AB bin 'Abd al-'Aziz. On Janaury 29, 1952, Prince Mit'ab had obtained from his father, King 'Abd al-'Aziz, the exclusive concession for the fishing, extracting, gathering, processing, and production of all fish and sea life, mother-of-pearl, and other commercially useful shell and shellfish in the territorial waters of the Saudi Arab Kingdom; the right to sell and export these products is included in the concession. This concession was granted for a 40-year period. The company was organized to exploit only the fish in the Red Sea; a small company gathering and exporting sea shells currently is operating independently along the Red Sea coast.

The authorized capital of the company is 12 million riyals (US$2.67 million) of which about 3.6 million riyals ($800,000) has been paid in. This capital was supplied as follows: Prince Mit'ab, one millon riyals; Prince MISH'AL bin 'Abd al-'Aziz, one million riyals; Prince FAHD bin Saud, one million riyals; former Finance Minister Muhammad Surur SABBAN, 300,000 riyals; and Muhammad BIN LADIN, a businessman, 300,000 riyals. Except for a small operating account, the company's real property and equipment account for all of the paid-in capital. The company apparently negotiated a small loan some years ago, but this has now been paid off and the company is, according to its bankers, debt-free.

In its first year, the company made an arrangement with a Swedish firm by which it purchased fishing and fish-processing equipment that the Colombian Government had decided not to accept, in exchange for a promise by the Swedish firm to help in the installation of this equipment and the technical operation of the company itself. The Swedish company broke its agreement and after the arrival of the equipment the Saudi company was left without the required technical assistance. The equipment was delivered and partially installed in a rambling structure on the company's property on a private quay near the Jidda harbor. The equipment purchased by the company includes machinery for (1) canning operations; (2) fish meal processing; (3) fish oil extraction; (4) ice manufacture; (5) one deep-freeze storage room; (6) three cool-storage rooms; (7) power generation; and (8) repair services (lathe, drills, shop equipment, etc.). In addition, the company has on the premises four small Diesel-powered (40-60 hp.) fishing boats, four powered dories, and one larger 105 hp. lift-net boat. (A 130-ton tuna vessel is laid up for repairs in Suez). It appears that both the plants and the boats which were sold to the company were designed for use in the frigid zone waters of Sweden. These special technical difficulties, added to those which a new venture of this kind would normally meet, were more than the Saudi company could cope with. The company has never gone into operation on a commercial scale. Most of its equipment has been in "moth balls." The primary task of its employees is to preserve it. The boats are, however, in poor shape.

During the last few years, technical experts from the FAO and various countries, including Japan, Italy, and Yugoslavia, have visited the company's plant, at its request, to study the possibility of re-opening it. So far, nothing has come of these visits.

The company is looking for both financial and technical help. More specifically, it would like to find a United States company which would be sufficiently interested to send an expert to assess the usefulness of the present plant and equipment and analyze the possibilities of establishing a successful fish-processing plant. If the firm decided that the market potential were sufficient and that such problems as shortage of fresh water and skilled manpower could be overcome, the Saudi company hopes that the United States firm would invest in the re-activated company and take over its technical operation. The type and amount of return the American company would receive would presumably be worked out in direct negotiations between the American firm and the Saudi company. The backers of the Saudi company have tied up considerable capital in the venture; they have been discouraged by years of failure. There are signs that they would be receptive to proposals offered by competent negotiators. (United States Embassy, Jidda, reported May 9, 1962.)



South Africa Republic and South-West Africa

PILCHARD-MAASBANKER FISHERY TRENDS, MARCH 1962:

Fishing for pilchard-maasbanker (jack mackerel) off the Cape west coast of the South Africa Republic continued at a steady rate in March while at Walvis Bay in South-West Africa those companies that did not start fishing earlier commenced operations during the month. This earlier start in fishing in South-West Africa resulted in the overall catch being higher than in the same months last season.

Production of fish meal was running at a higher level than it was last year and this enabled minor additional quantities to be marketed. The price was stiffening as demand was in excess of available supplies.

The price for fish oil remained unchanged at the depressed level of the early months in 1962, but the industry's total production is nevertheless fully committed. Canned fish production was steady against a somewhat decreased demand with prices in general being maintained.

Following increases earlier in the year, prices of spiny lobster in the South Africa

South Africa Republic and South-West Africa (Contd.):

Republic were unchanged in March. The perennial heavy demand remains and shipments of frozen tails to the United States continue to be made at the normal rate which is designed to spread delivery over the whole year. (The Standard Bank Review, May 1962.)

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FISH MEAL AND OIL INDUSTRY, 1960/61 SEASON:

A further substantial increase in South and South-West Africa's shoal fish catch was reported in the Seventeenth Annual Report (covering the period October 1, 1960, to September 30, 1961) of the Fisheries Development Corporation of South Africa Ltd. The Report was presented to the annual general meeting of the Corporation held in Cape Town on March 7, 1962.

The upward trend in catch of the pelagic species forming the raw material of the fish meal and oil and canning industries, as reported over the past three years, was continued at an increased pace during the period under review, which reflected record returns in respect of both the South African and South-West African inshore fisheries.

South and South-West Africa's Reduction Plants: Receipts of Raw Fish and Production of Fish Meal and Oil, Fiscal Year 1960/61 and 1959/60

	Raw Fish[1]		Meal Production		Oil Production	
	1960/61	1959/60	1960/61	1959/60	1960/61	1959/60
	(Short Tons)				(Long Tons)	
South Africa	557,075	425,143	123,488	93,620	41,158	25,302
South-West Africa	380,469	306,096	78,138	55,440	17,768	14,811
Total	937,544	731,239	201,626	149,060	58,926	40,113

1/Includes pilchards, maasbanker, and mackerel.
Note: Fiscal Year--October 1-September 30.

Two features, in particular, dominated the South African 1960/61 season, the first being the return of vast shoals of pilchards to the waters adjacent to the main concentration of factories on the St. Helena Bay coast, the second being the very high quality of the pilchards landed.

The proximity of the fish to the factories had the twofold effect of reducing the cost of catching and making possible the expansion of canning activity in the South African industry, which packed the equivalent of 994,467 cases (48 one-pound tall cans) during January-September 1961 as compared with 720,610 cases for the same period of 1960. One large factory in the area in question in 1961 received 85 percent of its raw fish from waters north of Dassen Island as compared with only 22 percent the previous year.

The excellent quality of the pilchards was reflected in the unusually high yield of oil achieved by the reduction plants. In two factories the exceptional figure of 33 gallons of oil per ton of fish processed was maintained for a short period in mid-season. But perhaps more striking effect is the fact that the 434,138 tons of pilchards delivered to South African factories January-September 1961 were estimated to consist of a lesser number of fish than the 345,136 tons of pilchards delivered over the equivalent period in 1960. Quite apart from its economic value, the merit of this development from a conservation angle needs no explanation.

It should be recorded, lest a wrong impression be unwittingly created, that the reduction factories receiving their fish receipts from "south fish," or shoals in the False Bay area, once again enjoyed a highly successful season, though the oil yield from fish of that stock was decidedly lower than that from the catches north of Dassen Island.

In South-West Africa the quota for shoal fish was established at 375,000 short tons divided equally among the six factories operating at Walvis Bay. The fish were readily accessible and in good condition, allowing processors once again to undertake a heavy canning program yielding the equivalent of 3,904,264 cases (48 one-pound tall cans) at the end of September 1961.

All fish oil surplus to the requirements of local consumers was sold to a single international buyer for consumption in the United Kingdom and Europe. Not all the record production of fish meal was disposed of in the course of the season by reason of the export quota system imposed upon members by the Fish Meal Exporters' Organization (embracing Angola, Iceland, Norway, Peru, and South Africa/South-West Africa). The countries that

South Africa Republic and
South-West Africa (Contd.):

belong to the Organization account for more than 90 percent of world exports of fish meal.

Members of the Organization have agreed to pursue a common policy, with a view to preventing a recurrence of the disturbed speculative market conditions of 1959 and 1960 and to ensure a continuity of supply to consumers at realistic price levels. The activities of the Organization have had a significant impact on the fish meal market and have resulted in a 50 percent rise in price from the very low levels that prevailed during 1959/1960. The Fish Meal Exporters' Organization at the International Fish Meal Conference held in Rome in March 1961, under the auspices of the Food and Agriculture Organization of the United Nations, invited all countries producing supplies surplus to their own requirements to subscribe to membership.

In the fishing industry, there appears to be only one truly global organization and that is the International Association of Fish Meal Manufacturers (this is an entirely separate organization from the Fish Meal Exporters' Organization). The Manufacturers' group handled a difficult marketing situation for fish meal which became apparent in 1959/60. It is cooperating with other organizations in promotion activities and the dissemination of scientific knowledge to assist in the requirements of, and demand for, fish meal and the exploration of the requirements of, and demand for, fish meal and fish flour for human consumption.

In South Africa there are closely-knit organizations already in existence which could readily belong to global units. Two such are the South African Fish Oil Producers' Association (Pty.) Ltd. and the South African Fish Canners' Association (Pty.) Ltd. The primary function of the first-named organization is the marketing of fish body oil, which it does very successfully. Its position vis-a-vis buyers is relatively weaker than is the corresponding position of its sister organization, the South African Fish Meal Producer's Association (Pty.) Ltd. by reason of the greater number of commodities in competitive supply, as for instance whale oil and various vegetable oils. Fish meal has not the same strongly competitive position to contend with, and the situation has now arisen that, while its price has firmed considerably in world markets, that of fish oil, in complementary supply, has shown a disappointing weakness as reflected in the lower price obtained for the 1962 production.

The South African Fish Canners' Association (Pty.) Ltd. does not handle the actual sales of canned fish, which are made by individual canners or selling combines of their own creation, but it acts as a forum where problems common to all fish canners may be discussed, and, in this way, serves a very useful purpose.

South Africa Republic

PILCHARD-MAASBANKER FISHERY, JANUARY 1962:

Off the Cape west coast of the South Africa Republic the 1962 pilchard-maasbanker (jack mackerel) season made a good start. The January pilchard catch was only a few thousand tons short of the record landings of January 1961. Good fishing continued through February 1962 and into March. Although the landings were not far below those of 1961, the pilchards were not of the same high quality as those brought in last year. This is shown by the oil yield from the fish meal plants, which is well below that of the first few months of 1961.

It seems that fishermen and factories were not interested in catching mackerel and maasbanker during the short shoal fishing season permitted during November and December 1961. In those two months at the end of 1960 nearly 30,000 short tons of mackerel and maasbanker were landed. In November 1961 the total catch was 2,103 tons maasbanker and 76 tons mackerel; even less fish were caught in December--183 tons maasbanker and 124 tons mackerel. The total catch in those two months of 1961 was a mere 2,502 tons.

One reason for this small catch was the steady development of tuna fishing off the Cape coast using "shoal" fishing boats for long-lining during the off-season.

The Cape west coast fish catch in January comprised 64,388 short tons pilchards, 1,216 tons maasbanker, and 6,046 tons mackerel. The total catch was 71,650 short tons. This compares with 69,879 tons pilchards, 6,745 tons maasbanker, and 3,821 tons mackerel landed in January last year; and with 23,162 tons pilchards, 5,694 tons maasbanker, and 2,147 tons mackerel in January 1960.

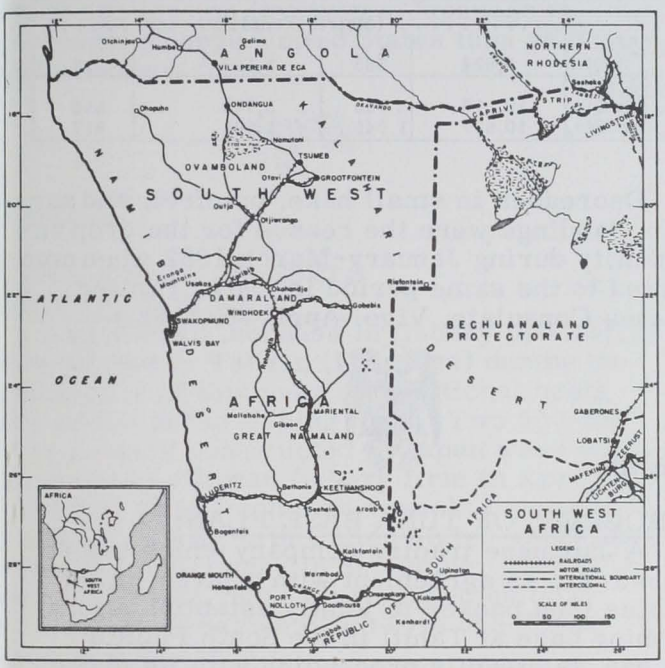
The January 1962 catch yielded 16,163 short tons of fish meal, 967,432 imperial gallons of fish body oil, 1,052,448 pounds of canned pilchards, 585,168 pounds of canned maasbanker, and 1,776,264 pounds of canned mackerel.

The January 1961 catch yielded 17,286 short tons of fish meal, 1,342,460 imperial gallons of fish body oil, 2,312,272 pounds canned pilchards, 1,763,416 pounds canned maasbanker, and 819,366 pounds canned mackerel. (The South African Shipping News and Fishing Industry Review, March 1962.)

South-West Africa

PILCHARD-MAASBANKER CATCH QUOTA FOR 1962 INCREASED:

The South-West Africa pilchard-maasbanker (jack mackerel) fishing industry has been allowed another large increase in the year's catch quota. In 1961 this limit for the six Walvis Bay factories was raised by 65,000 tons to 375,000 short tons distributed equally among the factories. For 1962 the quota has been raised by another 60,000 tons to 435,000 tons.



With each of them set to process 72,500 short tons of fish during 1962, the Walvis Bay factories started early this year. Nearly all the factories were expected to be in operation by the end of March.

Early reports indicated that the pichards shoals were abundant and readily available although the fish were medium size with an oil yield of about 12 gallons a ton.

The decision of the South-West Africa Administration to allow an increase in the catch quota results apparently from a recommendation by the South-West African Fisheries Advisory Council which met in Cape Town in February 1962.

The Council, which advises the Executive Committee of the Administration, is made up of representatives of the Administration, research bodies, the fishing industry in the Territory, and fishermen. (The South African Shipping News and Fishing Industry Review, March 1962.)

Spain

FROZEN TUNA EXPORTS TO ITALY:

The Japan Export Trade Promotion Association (JETRO) received information from its representative in Venice, Italy, that Spain reportedly is exporting Atlantic Ocean-caught tuna to Italy. According to the report, Spanish fishing vessels have landed an estimated 700-800 metric tons of skipjack, including some small yellowfin, at Venice and two other Italian ports since February of this year. Presumably, these tuna are being admitted into Italy under the 25,000-ton duty-free Italian quota established by the Common Market, of which 14,000 tons have been allocated to Japan and 11,000 tons to other countries.

The Japanese fishing industry is closely watching Spain's tuna exports to Italy since Italy had originally agreed to increase Japan's quota, if imports from other countries fell short of 11,000 metric tons. This development is viewed with concern by Japan which, until recently, had practically supplied all the raw tuna to Italy.

Reportedly, the Spanish tuna exports to Italy are round frozen in brine and the fish ranged between 3-10 kilograms (6.7-22.4 pounds). The fish sold at about US$275 per metric ton. Meat recovery is reported to be 33-34 percent, in which case the price paid for the fish seems fairly high. Italy reportedly has contracted to purchase 1,800 tons of tuna from Spain this year. (Suisan Keizai Shimbun, May 5, 1962.)

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CANNED TUNA INDUSTRY:

The Japan Export Trade Promotion Association (JETRO) in May 1962 released a report on the canned tuna industry in Spain and Portugal. A translation of the report on Spain follows:

The canned tuna pack in Spain of 19,480 metric tons in 1959 comprised 35 percent of the total pack of canned marine products, and was valued at 628,730,000 pesetas (US$57.4 million). Tuna packed in olive oil totaled 13,370 metric tons, or about 70 percent of the total canned tuna pack, which in 1959 reportedly was much less than in the preceding year.

In Spain there are approximately 800 canneries employing 35,000 workers, of which 75 percent are women. Thirty percent of the workers are regular employees. Most of the canned tuna is packed in the northwestern area (Galicia) and the Cantabrian district. The principal ports serving the canneries are also concentrated in those areas. In Vigo and oth-

Spain (Contd.):

er parts of the northwestern area, modern packing plants have been constructed, but in general, the canning industry in that area is not progressive. In 1960, 17 percent of Spain's canned tuna was packed by the two large packers located in Vigo (which are the two largest packers in Spain), 43 percent by canneries producing between 1-3 percent of the total canned tuna pack, and 40 percent by 700 small canneries.

Tin plate is manufactured only by one company, which cannot possibly supply the domestic demand, so Spain continues to import this material. Import duties collected for tin plate are refunded if it is used to make cans utilized to pack fish products for export. But this arrangement has not worked out very well. Almost every cannery has at least one tin-plate cutting machine with which to cut and make cans, but the printing work on cans is normally contracted out. There are large can manufacturers in Spain, including a recently-built factory with a productive capacity of 100 million cans per year. Some progress has been made toward standardizing specifications for tin cans, but no standardization has been attempted for aluminum cans.

It is believed that 75 percent of the tuna packed in Spain is sold to the domestic market and 25 percent is exported. Canned tuna, canned sardines, and canned anchovies are the leading canned fishery products exported by Spain. Those three items together constitute 60-90 percent of Spain's total exports of canned fishery products.

Principal countries to which Spain exports canned tuna are Switzerland, Italy, France, Great Britain, and the United States. At one time the United States was viewed as a promising market, but Spanish exports to the United States began to decline in 1960 and apparently this situation has not yet improved. (JETRO Report, May 1962.)

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VIGO FISHERIES TRENDS, FIRST QUARTER 1962:

Fish unloaded at the port of Vigo during the first quarter of 1962 was 44.8 percent less in weight and 13.7 percent less in value than during the last quarter of 1961, and 23.1 percent less in quantity and 6.5 percent less in value when compared to the first quarter of 1961. Average price per kilo for the first three months of 1962 was 13.24 pesetas (10 U. S. cents a pound) compared with 9.80 pesetas (7.4 cents a pound) for the fourth quarter of 1961 and 10.84 pesetas (8.2 cents a pound) for the first quarter of 1961.

Table 2 - Fish Handled by the Vigo Fish Exchange, First Quarter 1962 with Comparisons

Period	Quantity	Value	
	Metric Tons	1,000 Pesetas	US$1,000
1962: Jan.-Mar. .	11,065	146,117	2,435
1961: Oct.-Dec. .	20,041	169,325	2,822
Jan.-Mar. .	14,387	156,191	2,603

Table 3 - Utilization of Fish Landed at Vigo Fish Exchange, First Quarter 1962 with Comparisons

	Shipped Fresh to Domestic Markets	For Canning	Other Processing (Smoking, Drying, Fish Meal, etc.)	Local Consumption
	(Metric Tons)			
1962: 1st Qtr.	8,624	565	1,160	716
1961: 4th Qtr.	10,110	5,365	3,728	838
1st Qtr.	10,637	1,045	1,888	817

Decreases in small hake, pomfret, and sardine landings were the reason for the drop in quantity during January-March 1962 when compared to the same period in 1961. (United States Consulate, Vigo, April 19, 1962.)

Tahiti

PROGRESS OF TUNA BASE PLAN:

A Japanese trading company which has entered into an agreement with a large United States tuna packer to jointly establish a tuna fishing base at Tahiti in the South Pacific Ocean, is steadily proceeding with its plans to procure fishing vessels. As soon as the company's application is approved by the Japanese Fisheries Agency, construction of the 1,100-ton capacity cold-storage plant in Tahiti is expected to be undertaken. Under the present plan, the base is to be ready for operation in 1963.

Table 1 - Average Ex-Vessel Prices of Principal Species Landed at Vigo Fish Exchange, First Quarter 1962 with Comparisons

Species	1962			1961					
	January-March			January-March			October-December		
	Qty.	Avg. Price		Qty.	Avg. Price		Qty.	Avg. Price	
	Metric Tons	Pesetas/ Kilo	US¢/ Lb.	Metric Tons	Pesetas/ Kilo	US¢/ Lb.	Metric Tons	Pesetas/ Kilo	US¢/ Lb.
Octopus	1,711	4.44	3.4	1,638	6.03	4.6	116	5.88	4.4
Horse mackerel	1,662	6.00	4.5	753	5.88	4.4	2,763	5.04	3.8
Hake, large	145	59.16	44.7	91	60.63	45.8	103	67.58	51.1
" small	2,794	23.07	17.4	4,519	16.81	12.7	2,313	24.40	18.4

Tahiti (Contd.):

Approval by the Fisheries Agency has been delayed since the Agency is confronted with other tuna problems at the present time. Reportedly, the trading company plans to charter 14 vessels of the 99-180 ton class and has already secured agreements with fishing vessel owners. (Suisan Keizai Shimbun, May 2, 1962.)

Editor's Note: This is one of two applications to establish a tuna base at Tahiti. The other application involves a Japanese fishing company, a large United States tuna packer, and a French firm.

Taiwan

TUNA FISHING VESSELS ADDED TO FLEET:

A continued increase in fishery production is expected in Taiwan (Formosa) during the remainder of this year as additional boats are added to the fishing fleet. Two 550-ton tuna vessels constructed in Japan were delivered to a Taiwan fishery firm in April 1962 and 12 145-ton tuna vessels being constructed locally with United States aid funds are due for delivery in September. When in service, these vessels are expected to increase the fisheries catch by some 7,000 metric tons annually.

In addition to the vessels mentioned, the Provincial Government plans to apply to the United Nations for a loan to help construct a 700-ton vessel to investigate fishery resources in the Indian and west Pacific oceans.

The Government's recently formalized application to IDA for a US$6.3 million loan to finance construction of new fishing vessels is still under consideration. These vessels would be part of the Government's over-all plans to develop the fishing industry. The plans also call for establishing fishing bases abroad, improving shipbuilding techniques on the Island, training fishery technicians, and expanding export sales.

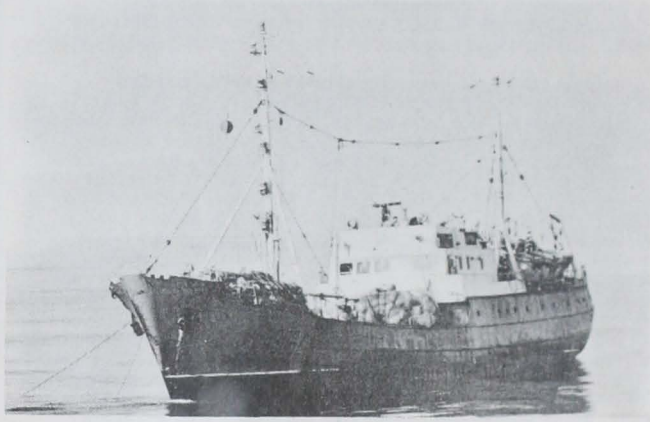
In March 1962, a Taiwan firm sold five tons of frozen shrimp to France. It is reported that this is the first time shrimp have been exported from Taiwan.

By the end of March 1962, Taiwan's fishery landings in 1962 totaled 68,638 metric tons. 15.2 percent more than in the first quarter of 1961. (United States Embassy, Taipei, report of May 21, 1962.)

U.S.S.R.

SOVIET FISHING ON GEORGES BANK IN NORTH ATLANTIC, APRIL 1962:

The large fleet of Soviet vessels (SRT's) fishing for herring moved away from Georges Bank to more northerly waters towards the end of April 1962. The Soviet VNIRO (Federal Research Institute for Fisheries and Oceanography) recommended that the combination gill net-trawl vessels (SRT's) shift to trawling for groundfish during the summer months. (Rybnoe Khoziaistvo, February 1962, and unpublished sources.)



Herring gill nets being hauled by a Russian drifter-trawler on Georges Bank.

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SOVIET FISHING ON GEORGES BANK IN NORTH ATLANTIC, MAY 1962:

In late May, the Soviet fleet on Georges Bank numbered well over 150 vessels, exceeding the peak of 110 vessels reported fishing in the area in late 1961. This year's fleet includes 150 to 180 herring gill-netters, a tanker, a seagoing repair tug, and four cargo-type motherships. (Unpublished sources.)

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HERRING FISHING IN NORTH ATLANTIC:

The early arrival of Soviet stern trawlers at the Georges Bank fishing grounds in the North Atlantic in February 1962,

U. S. S. R. (Contd.):

four months in advance of their 1961 arrival, is explained in the January 1962 issue of Rybnoe Khoziaistvo. During the first half of 1961 the Soviet herring catch from the North Atlantic slightly exceeded the planned half-yearly quota (by 0.5 percent), but in the third quarter the catch was only 55.7 percent of the quarterly plan. It had been equally poor in October and only somewhat better in November. In the second half of 1961 the herring catch in the Atlantic dropped 162,000 metric tons below the plan.

This failure, according to the Soviets, was due to: (1) bad weather in the second half of the year; (2) late fattening and late herring concentrations in usual catch areas; (3) fewer vessels fishing because many were in dock for repairs; and (4) insufficient exploitation of the Northwest Atlantic fishing grounds where the fishing conditions were better.

The Atlantic herring catch was so poor that the over-all Soviet production of fish for human consumption was merely 94 percent of the yearly goal. Only 7 out of 20 of the Russian Republic's Sovnarkhozes (Regional Economic Councils) obtained the planned amount of fish for human consumption. The fishing fleets of Arkhangel'sk, Murmansk, Karelia, Kaliningrad, and the Baltic Republic failed to fulfill their quotas.

Another reason for the early arrival of the Soviet fishing fleet on Georges Bank in 1962 was the way the 1961 catch had been planned. The total yearly increase was to have been 6.7 percent over 1960, but its quarterly distribution was uneven. Only a 1-percent increase was allotted the first quarter, while the third quarter's increase was to be 17 percent above the 1960 third quarter. The early return of the 1962 fishing fleet may show that the Soviet quarterly quotas have been redistributed for 1962, requiring a larger catch earlier this year than in 1961. Early returns also show that the Soviet Atlantic fleet is following directives from the Soviet Fisheries Administration which demand that: (1) Fleets of the Sovnarkhozes of the Soviet Northwest which had failed in meeting the 1961 herring quota must not concentrate their SRT's (medium fishing trawlers) in the North Atlantic only, but must also fish the Northwest Atlantic and the North Sea; (2) during the summer months when herring catches in the North Atlantic decrease, some of this fleet must fish the South Atlantic along the African Coast.

The Administration of the Murmansk fishing combine is striving to better its herring catches in 1962. Additional and more modern vessels were placed in the herring fishery fleet which reportedly were to sail from Murmansk to Iceland on June 10, 1962. As in previous years, the Soviets will depend on pair trawling, but will do more purse-seining with nets of lighter and thinner twine. (Rybnoe Khoziaistvo, No. 1, January 1962; Fiskaren, February 14, 1962.)

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FISHING IN SOUTH ATLANTIC OFF SOUTH-WEST AFRICA:

By the end of 1961, a total of 25 Russian fishing vessels had used the facilities of Walvis Bay harbor, South-West Africa, for water, stores, and some minor repairs. The majority were stern trawlers, of either the 3,700-ton Pushkin-class or the larger Maiakovskii-class factory trawlers. In the course of the year, three refrigerated fish transport vessels were identified. One of the transports was accompanied by a 70-foot steel-hulled purse-seiner towed out from a Russian base.

The purse-seiner was described as a type that might have been developed for the North Sea herring fishery. The deckhouse was just aft of amidships and there was a turntable on the stern for launching a large synthetic net. Later this same vessel was seen among the local pilchard boats as they were making their catches. Walvis Bay fishermen reported that the seiner made a number of unsuccessful attempts to net pilchards. Several weeks later, after having had no success, the vessel returned to Russia.

In January 1962 the Russian South Atlantic fishing fleet was still fishing white fish off the coast of South-West Africa. There were 8 to 10 trawlers and two depot ships operating between Walvis Bay and Tiger Bay in Angola. During December 1961, Walvis Bay was visited by the superintendent of this fleet. He stated that Russian interest was still in white fish and deep-sea trawling; the ships present were not equipped for pilchard catching. The catches, he said, were being sent back to Russia.

During January 1962, another Russian research ship made a second appearance at Walvis Bay, having called in June 1961 the first time. The vessel in the meantime returned to Russia for some time and was now back in South-West African waters to conduct research into the eating habits of the fish and the plankton resources of the area. In the same month, a stern trawler also called for water and stores. Its Captain Yerzenyev stated that the rest of the fleet was operating off the Angola coast, about 10° south latitude.

There were no other reports of Russian fishing activity off South-West Africa until mid-April 1962. At that time it was reported that three Russian factoryships had put into Walvis Bay for water and provisions and a fourth had put in for repairs. On April 19 another stern trawler put in for repairs.

Because of foreign vessels fishing off South Africa, there is a growing sentiment that the South African Government must extend its own territorial waters and those of South-West Africa to 12 miles. Representations to this effect have been made from Walvis Bay by fishing factories, the Boat Owners' Association, the Chamber of Commerce, and the Mayor. The Administrator of South-West Africa expressed the hope that the Government would extend the limits to 12 or 15 miles. (United States Consulate, Capetown, May 8, 1962.)

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U. S. S. R. (Contd.):

NEW VESSELS FOR ATLANTIC FISHERIES:

Since the end of 1961, five large fishing vessels were completed for delivery to the Soviet Atlantic fishing fleet.

Three were Maiakovskii-class sterntrawlers: Ametist, Kapitan Andrei Taran, and Linard Laytsen. They are freezer trawlers of 3,170 gross tons and 85 meters (almost 279 feet) long. Each vessel is equipped with processing and fish meal-manufacturing equipment. The crew for each vessel numbers over 100 men.

The other two of the five vessels are the Sovetskaia Latviia and Albatros, 3,230-gross-ton refrigerator factoryships, designed for taking on board split and whole fish from other fishing vessels, quick-freezing them, and delivering them to home fishing ports. Each vessel is 99 meters (almost 325 feet) long, has a speed of 15 knots, and carries a crew of 82 persons. (Unpublished sources.)

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RESEARCH ON PACIFIC HERRING MIGRATIONS:

During 1956-60, TINRO (Soviet Pacific Institute for Fishery Research) tagged 22,600 Sakhalin herring with a return rate of 3.38 percent or 764 herring. It was established that Sakhalin herring winter in two areas: the Tartar Channel and Aniv Bay.

Soviet Bering Sea herring catches rose from none in 1960 to 68,000 metric tons in 1961. Catches in 1962 are reported to be considerably higher than in 1961. (Rybnoe Khoziaistvo, February 1962, and other sources.)

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NORTH PACIFIC SALMON STUDY:

A study of the North Pacific salmon in accordance with the Northwest Pacific Fisheries Convention (U. S. S. R. and Japan) is being conducted by two vessels of the Pacific Research Institute of Fisheries and Oceanography (TINRO). One vessel will work in the south part of the Japanese Sea and the other in the North Pacific. On board the vessels are ichthyologists, biologists, hydrobiologists, and other specialists.

This year the institute will conduct a most thorough and widespread study of salmon. Besides the sea investigations, a large research program is planned in the Far East. Spawning surveys of the rivers of Kamchatka, Magadan, Khabarovsk, and Primorskii Krai regions will be conducted with the use of helicopters. (From a translation from Vodnyi Transport, April 12, 1962, by D. E. Bevan and O. A. Mathisen, Fisheries Research Institute, Seattle, Wash.)

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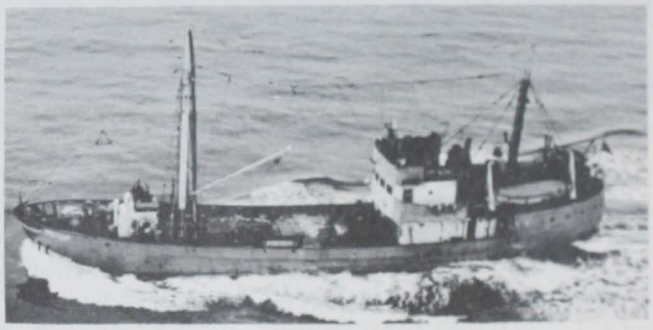
FISHING ACTIVITIES IN BERING SEA, APRIL 1962:

In the Bering Sea fishery, over 200 Soviet vessels were sighted in the last week of April 1962. They were fishing for herring, flounder, and ocean perch. The fleet included 5 factoryships, 166 trawlers, 29 refrigerated transports, and several tankers and tugs. Of those



Typical Russian trawler operating in the Bering Sea.

vessels, 143 were operating in Bristol Bay and north of Unimak Island; 50 of them were in the area of the Pribilof Islands. Eight whale killers were operating in the Gulf of Alaska supported by two whale-processing ships. (Unpublished sources.)

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NEW FREEZER-TRAWLER FISHING IN BERING SEA:

The new freezer-trawler Barabash, launched earlier this year at Nikolaev on the Black Sea, arrived in the North Pacific in May 1962. During a successful shakedown cruise off the west coast of Kamchatka, the vessel took 33,000 pounds of fish in a 50-minute drag.

The vessel departed for the Bering Sea to trawl for ocean perch, flounder, and herring. The vessel is 3,170 gross tons, 279 feet long, and is manned by a crew of 102. (Unpublished sources.)

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U. S. S. R. (Contd.):

FISH PRODUCTION FOR HUMAN CONSUMPTION:

The total Soviet production of fishery products for human consumption in 1961 was 1,682,900 metric tons (product weight). The supply was 94 percent of the planned production. The production of fresh and frozen fish amounted to 778,000 tons which compares favorably with the 674,000 tons produced in 1960.

Typical Russian trawler operating in the Bering Sea.

The 1962 plan calls for a production of 1,936,500 tons of fishery products for human consumption from a total catch of 3,937,000 metric tons. It was previously reported that the Soviet Union's fisheries catch in 1961 was about 3.7 million metric tons of fish, whales, and other aquatic products. (Rybnoe Khoziaistvo No. 1, 1962.)

Note: See Commercial Fisheries Review, May 1962 p. 73.

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FISHERIES DEVELOPMENTS IN FAR EAST:

The following article is a translation of a news story published in the Japanese fisheries periodical The Fishing Industry Weekly. It discussed the managerial and operational problems faced by the Soviet Union in its Far East fisheries. The Japanese article was originally translated from Russian by Haruyuki Sakiura, who is listed as translator for the Japanese Fisheries Agency.

According to Sakiura's introductory remarks, he was able to obtain the notes of a special reporter from an influential Russian newspaper, who was assigned to cover the Soviet Far East fisheries. The notes describe observations made by the Russian reporter, as follows:

Recently I had the opportunity of visiting the Soviet fishermen in the Soviet Maritime Province, Sakhalin Island, and Kurile Islands, and also spent considerable time aboard a Soviet factoryship which operates in the waters extending from the Japan Sea to the Okhotsk Sea and then to the Bering Sea. The many things that I saw with my own eyes convinced me that the Soviet Far East fishermen were capable of successfully applying the marvelous technological developments provided to them by their Soviet shipbuilders. However, during this trip, which was my first tour of the Soviet Far East fishery, I also witnessed some disturbing aspects of this industry, which I will now relate.

King Crab Factoryships Discard Crabs: There was conspicuous evidence that captured crabs were not being properly handled by the crab-canning factoryships. For example, crabs that had been left on the deck for even a short while beyond a specified length of time were handled as though they were no longer useful, although they could have been processed and canned as food for domestic animals. Food experts have proven the high nutritional value of such canned food for animal consumption. However, none of the factoryships were processing them and, instead, were wastefully throwing them overboard... .

The Leningrad Shipyard had installed on one of the crab factoryships, equipment to process crab shells into crab meal, a valuable poultry feed. During the 1961 crab fishing season, this factoryship produced only a very small quantity of crab meal totaling 2,313 centners (231 metric tons)... . Why weren't all the crab shells processed and made into crab meal? There is a reason for this. King crabs are canned according to a rigid rule whereby data on production must be reported daily to the production control room; whereas, crab meal production does not necessarily have to be reported, so whether or not crab meal is produced does not matter. For this reason, hardly anyone on the factoryship took any interest in crab meal production.

Other crab factoryships had absolutely no equipment, such as a grinding machine, with which to produce crab meal; moreover, they were old and too small to accommodate such equipment. According to the chief administrator of the crab fishing fleets, full utilization of crabs cannot be expected until the old vessels are replaced by new ones, a change which he strongly desires.

Modernization of all the crab factoryships, however, cannot be accomplished in one or two

U. S. S. R. (Contd.):

years. The solution, then, seems to lie in providing one or two auxiliary vessels, equipped with drying and grinding machines, to collect crab shells from factoryships and process them into crab meal. If this is done, it would be possible to produce more than 10,000 metric tons of crab meal for the Soviet poultry farms in the Far East. Drying and grinding machines are now being manufactured in the Soviet Union.

Saury Fishing and Production: The Soviet crab motherships began to conduct saury fishing in addition to crab fishing from the third year of their operations in the Far East waters. Saury, which are taken in the Far East waters, have a delicious taste and are very popular among fish consumers. Processing of both crab and saury should double production of the crab factoryships. Saury processed by the factoryships were all packed in oil. Saury can be marinated or salted, and when smoked, their taste is matchless. Perhaps some kind of an arrangement should be made whereby one factoryship packs saury in oil, another packs marinated saury, and the third salted saury. Shore canneries are equipped with smoking facilities and could produce smoked saury. Freezer vessels could also be utilized to supply delicious frozen saury to the coastal cities which, incidentally, do not receive an adequate supply of fresh fish... .

Another matter which requires special mentioning is that production of canned saury could have been greater than actual output. On days when saury landings were so large that the factoryships could not possibly process the entire catch, the saury could have been transported to the processing plants on land by means of freezer carrier vessels or small refrigerated vessels. To be sure, the coastal packing plants have sufficient capacity to produce more than their current output, but there is no coordination of activities between the factoryships and shore plants, although they are both organized and controlled by the Soviet Far East Fisheries Bureau.

Saury fishing is regulated and fishing vessels are prohibited from taking saury in quantities beyond the processing capacity of each factoryship. This regulation became necessary because of the increase in the number of fishing vessels serving the factoryships. Needless to say, this is a time when small refrigerated vessels can really be put to good use.

Quite understandably, the Far East Fisheries Bureau leaders are always complaining about the lack of refrigerated vessels and the Soviet fishermen are saying that the problem confronting them cannot be solved unless the number of refrigerated vessels are increased. The most important thing, however, is to eliminate idle vessels through efficient utilization of freezer carrier vessels. In the ports of Vladivostok and Nakhodka, fishing vessels are compelled to wait between 8 and 12 days to unload their catches, due to lack of unloading facilities and shortage of small refrigerated vessels... .

With the exception of one factoryship named the Andrei Zakharov, Soviet factoryships are not equipped to process saury waste, which constitutes 40 percent of the fish. Head sections, viscera and tail sections, which contain much valuable minerals, are discarded. No one seems to seriously consider the use of fish waste. Even the Andrei Zakharov, which is equipped to process waste, is not producing even one gram of fish meal, for that factoryship has no production goal for fish meal and so there does not seem to be any enthusiasm on the part of the factoryship personnel to produce it.

Saury are known for their high oil content, but none of the factoryships are furnished with equipment to extract oil... .

Oil is not difficult to extract from waste products according to the factoryship's technologist, a woman. She says that this can be done simply by installing in the factoryship a centrifuge to separate fish oil from stickwater under high pressure. Water is eliminated and the oil is then placed in separators. The technologist says that the factoryships operating in the Caspian Sea turn their fish waste over to vessels specially equipped for processing waste, and she could not see why the same thing could not be done by the factoryships operating in the Far East waters.

Coastal Plants Suffer from Raw Material Shortage: The Soviet Far East fish-processing plants definitely can be organized to locally process fish fillet, as well as smoked and marinated fish. In earlier days, the fishermen in the Maritime Province obtained most of their catches from nearby waters, so the Maritime Province Regional Fisheries Bureau had established large plants on the

U. S. S. R. (Contd.):

coast to process the catches. However, in recent years, the fishing grounds have shifted to the open seas, and fish processing is now conducted mainly by factoryships. As a result, most of the coastal plants are now operating at one-fourth of their production capacity. Moreover, their operations have become seasonal. The problem confronting the Far East Soviet fishermen can be readily solved by utilizing these idle facilities. The Soviet Far East Fisheries Bureau and the Maritime Province Regional Party Committee should exert their best efforts to remove the obstacles hampering the healthy growth of of the Soviet Far East fisheries. (Japanese periodical, The Fishing Industry Weekly, No. 339, April 25, 1962.)

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FAR EAST CANNED FISH PACK:

In 1965, the canned fish pack of the "Soviet Far East Fisheries" is expected to be 254 million standard cans (350 grams or 12.3 ounces per can). In 1958, the pack was 110 million cans. (Biblioteka Agitatora, Vladivostok, 1961.)

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SAURY FISHERY IN FAR EAST BEING EXPANDED:

Pacific saury (Cololabis saira) is fast becoming a major species of the Soviet Far Eastern fisheries. Canned saury undoubtedly will become the most important product of the region's fish-canning industry. By 1965, the end of the seven-year plan, the annual pack of canned saury is expected to reach 143 million standard cans. (Rybnoe Khoziaistvo, January 1962.)

The Soviet research vessel Rubtsovsk early this year completed an exploratory fishing trip in the East China Sea where sardines, mackerel, and jacks were taken. Observations were also made on oceanographic and weather conditions. (Unpublished sources.)

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NUMBER OF MEN WHALING IN ANTARCTIC INCREASED:

For the 1961/62 Antarctic whaling season the Soviet Union increased the number of men engaged in whaling by an estimated 1,150 persons. This is in marked contrast with decreases in Norwegian (820 persons) and British (221 persons) personnel. This season's increase in Soviet manpower is due to the fact that the newly-constructed 45,000-ton whale factoryship Sovetskaia Rossiia started its Antarctic operations.

The total Soviet manpower in Antarctic whaling this season was estimated to be 4,050 men, or about 20 percent of the total manpower engaged in whaling in that area. As recently as the 1956/57 season, the Soviet whaling fleet in Antarctica employed only 850 men or 5 percent of the total. (Norsk Hvalfangst-Tidende, No. 2, 1962.)

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FOUR FISH-FREEZING MOTHERSHIPS TO BE BUILT IN DENMARK:

In early May 1962, the first of four Soviet fish-freezing and refrigerator mothership vessels was christened the Skryplev in a Copenhagen shipyard. The vessel has a deadweight of 2,600 tons, is about 300 feet long, and a beam of about 53 feet.

The complement of the vessel is not known but it will carry four 25-foot lifeboats, each with a capacity of 53 people. The vessel is not designed for actual fishing operations, but has a stern slipway presumably for taking aboard nets filled with catches made by other vessels. (United States Embassy, Copenhagen, May 24, 1962.)

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SOVIET-VIETNAMESE COOPERATION IN FISHERY RESEARCH:

The second Joint Soviet-Vietnamese Research Expedition ended its work in the Gulf of Tonkin late in 1961. The expedition was organized by TINRO (Soviet Pacific Institute for Fishery Research) primarily to determine sardine and tuna populations in the Gulf, though research was also done on groundfish and oceanography.

In addition, a team of Soviet specialists taught Vietnamese fishermen modern fishing and exploratory techniques. The first Joint Soviet-Vietnamese Expedition was organized in 1960. (Rybnoe Khoziaistvo, February 1962.)

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OCEANOGRAPHIC ACTIVITIES IN NORTHERN EUROPEAN SEAS, 1962:

In 1962 Soviet investigators plan to make oceanographic observations and investigate

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water masses in the northern European seas, the near northern seas, the Baltic Sea, and on fishing grounds of the eastern Atlantic. Investigations will be carried out from vessels of the Hydrometeorological Service and the Fisheries Research Institutes.

Medium fishing trawler types will work in the northern regions and in the Baltic Sea; large fishing trawler types will conduct observations in the Atlantic Ocean. Standard programs within the framework of International Standard Observations will be made in the Baltic Sea. Oceanographic observations will be made at the herring fishing grounds of the Norwegian Sea, at cod fishing grounds of the border region between the Norwegian and Greenland seas up to Jan Mayen and in the border regions between the northern European seas and the North Atlantic.

Investigations of the thermal and dynamic ocean-atmosphere interrelationships and evaluation of predictions of oceanographic conditions, with particular emphasis on fisheries aspects, will be continued. (National Oceanographic Data Center Newsletter, April 30, 1962.)

Note: See Commercial Fisheries Review, June 1962 p. 63.

United Arab Republic (Egypt)

STATUS OF FISHERIES:

Egypt's fisheries, which are under the jurisdiction of the General Organization for the Development of Marine Wealth, remain to be intensively developed. Egypt has a coastline of more than 1,500 miles, one million acres covered by lakes, and the Nile River and its tributaries. The commercial catch in 1960 was approximately 85,000 metric tons, one quarter of which was taken in the Mediterranean and Red Sea and the balance in lakes and rivers. Of the total, 2,500 to 3,000 tons were shrimp, now becoming an important export for Egypt. Value of the 1960 fishery catch was about £E10 million. Per capita consumption is estimated to be 4 kilos (8.8 pounds) per year.

Despite the apparent potential of Egyptian fisheries, the United Arab Republic remains a net importer of fish. In 1960, 9,039 metric tons were imported (principally herring, sardines, and tuna) as against 1,856 metric tons exported. Exports of crustaceans (chiefly shrimp) show continuing increase. From a level of 1,061 metric tons in 1960, those exports rose to 569 metric tons in the first half of 1961, of which 401 metric tons were destined for the United States.

The fishing fleet consists of about 13,000 craft, of which 3,000 are used in sea fishing. Of the total only about 500 are motorized. There were 65,000 licensed fishermen in 1960, including 20,000 boys under 16 years of age. About 200,000 wage-earners are employed in allied industries such as processing, marketing, and transportation, and fishing vessel, sail, and net production.

Shore facilities include five freezing plants with a capacity of 1,500 to 2,000 metric tons of shrimp per year, and a canning plant for sardines and shrimp with an annual capacity of 4 million cans. (United States Embassy, Cairo, report of May 9, 1962.)

United Kingdom

FISHING LIMIT ZONE OF 12 MILES MAY BE ADOPTED:

There are reports that Britain is planning to adopt the 12-mile fishing limit zone, according to the British periodical Fish Trades Gazette, May 26, 1962.

Reports that the Government is planning to extend the British fishing limits to 12 miles were received enthusiastically at many of the inshore British ports. It is understood that details of the proposal are now being worked out and that the new 12-mile fishing zone is likely to be introduced early next year.

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ELECTRONIC THAWING OF FROZEN FISH:

Dielectric heating makes it possible to thaw a block of frozen white fish within 15 minutes, almost independently of the block size. Frozen herring can be thawed in 5 minutes. Earlier methods, depending on a gradual thawing from the surface, meant a great strain on the product. Even when flowing water is used that method is lengthy and time-consuming.

Dielectric thawing, developed by the Torry Research Station, Aberdeen, can be adopted

United Kingdom (Contd.):

as a continuous process. It must be very closely controlled, however. In the experiments, radio-frequency generators giving six kilowatts and operating in the range of 36 to 40 mc/sec. were used. The frozen fish is conveyed continuously in between the electrodes, and on the assumption that the electrical current is delivered uniformly and held under certain critical limits, an adjustment can easily be made for fish of different sizes. Above such a critical level the heating very easily becomes uncontrolled and spotty. Certain sections of the fish may readily absorb a larger part of the energy, becoming cooked while other parts of the block remain frozen. Blocks frozen at sea may easily have an irregular form, which may cause such difficulties.

With dielectric heating it is possible to thaw such blocks at 25° C. (77° F.) within 75 minutes, whereas it takes 18 hours in air under controlled conditions. The investment is US$28,000 dollars for a plant with a thawing capacity of one metric ton per hour. The cost of thawing is about one-third of the cost of freezing. The method is now commercially employed in a large shore establishment at Grimsby on the river Humber. (Food Technology, April 1962.)

Note: See Commercial Fisheries Review, June 1961, p. 86.

TRY TUNA SALAD FOR MAIN DISH AT PICNICS

Outdoor picnics in the summertime, whether they are held on the beach, in the mountains, in local parks, or just in your own backyard, can be memorable occasions for the family--particularly if the food has appetite appeal.

The food included in any picnic should be tasty, easy-to-prepare, and energy-giving. Canned tuna, which possesses these qualities, is excellent for picnic use as a main course salad.

Along with tuna salad, the home economists of the U. S. Bureau of Commercial Fisheries suggest potato chips, sliced tomatoes, buttered rolls, fruit, cup cakes, and iced tea or coffee as good accompaniments. All perishable foods for picnic use must be refrigerated, caution the home economists.

TUNA SALAD

2 cans (6½ or 7 ounces each) tuna
½ cup mayonnaise or salad dressing
1 cup chopped celery
2 tablespoons chopped sweet pickle
2 tablespoons chopped onion
2 hard-cooked eggs, chopped
½ teaspoon salt
Dash pepper
Lettuce
1 hard-cooked egg, sliced

Drain tuna. Break into large pieces. Combine all ingredients except lettuce and eggs. Serve on lettuce; garnish with egg slices. Serves 6.