International

GENERAL AGREEMENT ON TARIFFS AND TRADE

ELEVENTH SESSION OF CONTRACTING PARTIES: Several issues of primary importance to the future work of the Contracting Parties to the General Agreement on Tariffs and Trade were considered during the eleventh regular session of the Contracting Parties. The Session began on October 11 and closed on November 17, 1956, in Geneva, Switzerland.

During the Session, arrangements were made for the Contracting Parties to hold comprehensive consultations during 1957 with most of the countries maintaining import quotas for balance-of-payments reasons. This will be the first general examination of such quantitative restrictions since the General Agreement was initiated in 1948.

Preliminary discussion was held with regard to the relationship of the General Agreement to current negotiations in Brussels on a European common market or customs union among Belguim, France, Germany, Italy, Luxembourg, and the Netherlands. A similar discussion took place with regard to studies in Paris which may lead to a free trade area between members of the proposed customs union and various Western European countries, such as the United Kingdom. In view of the preliminary nature of the Brussels and Paris work, it was not possible to discuss the substance to any great extent. It was agreed, however, that if these plans mature, such discussions would take place at a future time, and procedures for the consultation were established.

The way was cleared under which Nicaragua, a contracting party, and four neighboring states which are not contracting parties can form a Central American free trade area.

The session just concluded was a regular annual meeting during which the contracting parties discussed various matters which had come up under the administration of the General Agreement.

Thirty-five countries are presently contracting parties to the General Agreement on Tariffs and Trade.

Other Actions on Import Restrictions: During the session, the Contracting Parties conducted their annual consultations on discriminatory import restrictions with Australia, Ceylon, New Zealand, Rhodesia and Nyasaland, and the United Kingdom.

In each case, some progress was noted in the reduction of discrimination against dollar goods during the past year. Ceylon, in particular, made a major move in September 1956 when it removed its monetary ceilings on the licensing of dollar goods and established a de facto regime of nondiscrimination, which results in the automatic licensing of virtually all imports from the dollar area.

In addition, the United States Delegation held bilateral consultations with the delegations of 13 countries: Australia, Brazil, Ceylon, Denmark, France, Germany,

India, Italy, Japan, The Netherlands, New Zealand, Norway and the United Kingdom. These discussions covered import restrictions maintained by these countries on specific commodities which created a hardship to United States producers or were unduly discriminatory toward United States goods. In each case the United States Delegation suggested that the other country consider whether a relaxation of the restriction could be made without disrupting that country's balance-of-payments position. Fisheries products were discussed with four countries (Denmark, Germany, Norway, and the United Kingdom).

Results of the discussions were generally favorable. Several assurances of immediate favorable action were obtained; in some instances the prospect of fairly early reduction in the level of such restrictions was indicated; while in a few instances the countries indicated a need for the continuance of the restrictions. In each case, however, a full and frank discussion of the restrictions, the reasons for their maintenance, proposals for their elimination, or the need for their continuance served to provide a basis for mutual understanding and for further consultations in the future.

The Contracting Parties issued their Seventh Annual Report on the Discriminatory Application of Import Restrictions.

Note: Also see Commercial Fisheries Review, November 1956, p. 65.

GREAT LAKES FISHERIES COMMISSION

FIRST ANNUAL MEETING AT ANN ARBOR, MICHIGAN: The Great Lakes Fisheries Commission on November 20, 1956, completed a two-day annual meeting at the University of Michigan in Ann Arbor. The Commission, which was established by treaty between Canada and the United States, consists of three representatives from Canada and three from the United States. The meeting was lead by the Commission Chairman, John L. Farley of the U. S. Fish and Wildlife Service and Vice-Chairman, Dr. A. L. Pritchard, of the Canadian Department of Fisheries.

The Commission's major concerns are control of the parasitic sea lamprey in the Great Lakes, and the planning, promotion, and coordination of fishery research with a view towards maintaining fishery production from the Great Lakes on a sustained yield basis.

The most important task accomplished by the Commission at this meeting was a thorough review of the research and lamprey control operations carried out during the past season. The commission heard reports in detail from scientists from Canada and the United States who are carrying out its programs.

The Fisheries Research Board of Canada and the U. S. Fish and Wildlife Service of the United States, under the direct supervision of the Commission, engaged in a $900,000 lamprey control program during 1956. These two organizations during the past season have installed barriers on all streams tributary to Lake Superior now known to contain lamprey runs--81 barriers are now in operation. The records of rate of increase in the abundance of sea lampreys in Lake Superior emphasizes the urgent need for effective control. The number of spawning-run individuals captured in 30 streams that contained barriers in 1954-1955 were: 1954, 4,922; 1955, 8,823; 1956, 19,009. In 1956 the number of lake trout bearing lamprey scars taken in the fishery approximately doubled over 1955.

In Lake Michigan, 19 barriers were operated that took more than 54,000 lampreys in the Green Bay-northwest Michigan area, and currently barriers are being installed on 55 additional streams and should be ready for operation in 1957. In Lake Michigan the control network will be completed by early 1958.

In Lake Huron during the current season streams were surveyed and sites selected for installation of barriers. Installation is planned for 1958.

Preliminary studies in cooperation with Ohio, Pennsylvania, and New York, and the Province of Ontario have been made on the lamprey situation in Lakes Erie and Ontario.

At the same time the Commission is investigating other methods of control. One of these is the development of a direct current electrical device which will guide the lamprey into a trap where it can be destroyed. Two pilot models of such a direct-current device were tested. The results were especially gratifying. This device, if it proves out, will be more economical to operate than other types of electrical barriers.

A great deal of work has been done on chemicals which will kill lamprey but not affect other fish. The results of laboratory work with these chemicals indicate that they may be successful in the control of the lamprey before it becomes parasitic, but extensive field tests are required and a number of intricate problems will have to be solved before the Commission will know whether or not these chemicals will be useful.

Commission scientists are following up another possible means of control which would involve the use of ultrasonic vibrations. During the course of the ultrasonic experiments it was discovered that lamprey are capable of creating electrical impulses which result in an electrical field around the head region of the lamprey.

In addition to the lamprey control work, research agencies in the United States and Canada have, during the past season, carried out a quarter of a million dollar Commission research program on the fisheries.

A major aspect of these studies has been an inquiry into the direct and indirect consequences of sea lamprey predation on the deep-water populations such as lake trout, whitefish, and chubs. Further research has been carried out on fisheries not affected or little affected by sea lamprey as part of a long-term program to determine the factors that control levels of abundance and production.

These researches are being carried out on all five of the Great Lakes by scientific staffs totaling some 55 persons, operating from 7 research stations with 6 vessels at their disposal.

INTERNATIONAL PACIFIC SALMON FISHERIES COMMISSION

1956 FRASER RIVER SOCKEYE SALMON RUN BELOW BROOD-YEAR 1952: The 1956 run of Fraser River sockeye, including the commercial and Indian catch as well as the escapement, declined 14 percent relative to the brood-year 1952. In 1955 the run declined 17 percent relative to the brood-year 1951. Survival conditions affecting the 1956 run were slightly better than those affecting last year's run; nevertheless a negative condition existed which is not considered to be representative of normal productivity.

In spite of the decline in the total run, special consideration was given to obtaining adequate escapement with the result that the total escapement actually increased slightly over that recorded in the brood-year. The 1956 escapement of 888,000 sockeye salmon was 32.2 percent of the total run. A year ago overfishing combined with the 17-percent decline in the total run resulted in an escapement of only 14.6 percent of the run. The 1955 escapement was not favorable to maintaining the 1955 cycle on a maximum production basis, hence every effort was made in 1956 to avoid a duplication of the unfavorable 1955 catch-escapement ratio.

The total 1956 escapement was satisfactory and the individual racial escapements are considered favorable to the maintenance of this cycle on a maximum potential level of productivity. The escapement of many races showed substantial

declines in productivity, but in most cases the decline can be attributed to the gradual formation of dominant year-classes on other cycle years. These declines have been predicted for several years in the annual reports of the International Pacific Salmon Fisheries Commission.

The Chilko River, Gates Creek, and Silver Creek runs were the only dominant year-classes expected, and in each case the production and escapement was satisfactory although below the maximum expected. Chilko produced a total catch of 1,120,000 sockeye and an escapement of 647,000 for a total racial run of 1,767,000 fish. The run to Chilko has shown a consistently greater ability to escape the fishing gear than the other races. This year's Chilko escapement was 36.6 percent of the Chilko run while the escapement of all other races was only 24.4 percent. The escapement to Chilko was actually in excess of calculated requirements for maximum production, but was a necessary result of allowing the escapement of other races migrating at the same time to be maintained at a reasonable level.

In the lower river area, the escapement to Cultus Lake appears satisfactory. The run to Weaver Creek had been seriously affected by drought conditions in the brood-year, and a substantial drop in population size was expected on the basis of the fry emergence count in the spring of 1953. For the first time in several years the Birkenhead run held relatively steady with the decrease in the size of escapement due almost entirely to a decline in the number of three-year-old fish, which have no value in reproducing the population. The Pitt River escapement was almost entirely five-year-old fish; the 32,258 fish on the spawning ground compares favorably with the figure of 37,833 recorded in 1951.

If the surplus escapement to Chilko could have been taken in the fishery, the total catch would have approached the 2,000,000 figure anticipated as the minimum catch for 1956. The actual catch was 1,802,000 for both countries, and was divided within 12,000 fish of equal division between the fishermen of Canada and the United States.

In conclusion, it may be said that the 1956 run approached very closely to the minimum expected, but well below the maximum potential. The escapement is considered satisfactory for maintaining the cycle at a potentially high level of productivity.

NORTHWEST ATLANTIC FISHERIES COMMISSION

Mesh regulations for the trawl fishery for Cod and Haddock in Subareas 3, 4, and 5: Agreed to by the Commission in its 1955 Annual Meeting, mesh regulations for the trawl fishery for cod and haddock in subareas 3, 4, and 5 have been accepted by the Governments concerned and were expected to be put in force by the beginning of 1957 Proposals for some minor changes in these regulations, dealing with saving gear used and with exemptions in order to avoid impairment of fisheries conducted primarily for species other than cod or haddock, were made by the Commission at its 1956 Annual Meeting. These proposals were transmitted by the Depositary Government to the member countries. Acceptance by governments has up to date been received from Norway.

Annual Meeting: The Commission in its 1955 meeting agreed to a change in the 1949 Convention in order to make possible the holding of Annual Meetings not only in North America but in any of the participating member countries. The United States Department

of State has now informed the Secretariat on August 21, 1956, that all ten member governments had approved this amendment to the 1949 Convention, the Commission's December 3, 1956 newsletter points out.

The 1957 annual meeting will be held in Lisbon, Portugal, May 20-25. It will be preceded by meetings of the Standing Committee on Research and Statistics on May 17-18, and followed by a Workshop on Population Dynamics and on the Selectivity of Fishing Units, May 27 to June 3.

The Food and Agriculture Organization of the United Nations and the Conseil Permanent International Pour l'Exploration de la Mer have accepted an invitation by ICNAF to hold their proposed meetings on the same or similar problems in Lisbon at the same time, in order that the three organizations could hold joint meetings, when convenient. To ensure the fullest possible cooperation of the three organizations in the Workshop, a "steering committee" has been set down composed of one member from each of the three sponsoring organizations.

The meeting will take place in the sea coast resort of Estoril some 15 miles from the center of Lisbon.

TERRITORIAL WATERS

NORWAY AND RUSSIA NEGOTIATE ON TERRITORIAL WATERS: Negotiations began on December 3 between Norway and Soviet Russia to determine the point of demarcation of the fisheries territorial waters boundary between the two countries in the Varangerfjord area. The negotiations now in progress were the result of a request by Norway to the Soviet Union for a meeting to solve the problems arising from the seizure of more than 20 Norwegian vessels by the Soviets during recent months. The Norwegian vessels were allegedly fishing in Soviet territorial waters (Morgenbladet, December 3, a Norwegian daily newspaper).

UNITED NATIONS

TERRITORIAL WATERS AND FISHERY JURISDICTION CONSIDERED BY COMMITTEE: The sixth committee of the United Nations began consideration on December 3, 1956, of the report of the International Law Commission (ILC) on the "Final Report on the Regime of the High Seas, the Regime of the Territorial Sea, and Related Problems." Included in this report are recommendations regarding international limits to territorial waters and fishery jurisdiction, which are important to the fishery industries.

On November 27 the United States introduced, together with 22 co-sponsoring nations, a resolution calling for endorsement of the recommendation of the ILC that its report on the law of the sea be referred to a special international plenipotentiary conference for study and consideration, which would take account of the legal, technical, biological, economic, and political aspects of the problem.

The United States resolution refers the ILC report to the specialized conference as the basis for its consideration of the various problems involved in the development and codification of the law of the sea. This resolution is entirely procedural and it had been hoped that any substantive discussion on the merits of the various topics covered by the ILC report would be deferred until this contemplated special conference had been convened.

While the United States believes that future consideration of these matters should be concerned also with the technical and biological aspects when appropriate to their context, a considerable number of delegations at this meeting would have the primary if not the total emphasis of future discussions rest on political and economic considerations.

Two proposals were put forward by Canada and Venezuela, that would go far in defining the limits on territorial waters and fisheries jurisdiction.

The Canadian spokesman recalled that his country has historically promoted the three-mile limit to territorial waters. He noted that many countries including his own had already found such a narrow limit to be inadequate or insufficient with regard to customs, fiscal matters, and sanitation control, and that as a consequence many countries had already established a 12-mile contiguous zone to deal with these matters. The Canadian delegate observed that it was the opinion of his government that the narrow three-mile territorial limit was now also insufficient to permit proper control and regulation of fisheries by the coastal state, adding that Canada was submitting an extension of a contiguous zone for the control and regulation of fisheries to 12 miles, for consideration by the proposed world conference. He added that under this compromise plan the breadth of the territorial sea would still remain at three miles, but that fishery regulations and control would be divorced from other considerations in the territorial sea. According to the Canadian spokesman, this separate fisheries treatment would allow each state to control its fisheries without the complication of international law and that this specialized extension would not endanger freedom of the seas nor air navigation.

The Venezuelan delegation presented support for a 12-mile territorial sea with the privilege of extending fisheries zones further if and when they saw fit, and it was particularly noted that his country recognized no historic right of any country in this respect.

General debate on the report of the ILC report was continued the week of December 10 by the sixth committee of the United Nations. Delegates from most of the countries represented at the session were able during the week to state their positions.

The positions voiced generally followed the historic position taken by each country in recent years. Regarding the compromise proposal introduced by Canada a week earlier only one nation--Ireland--took notice of it in public discussion. Also, there was little informal comment on the Canadian proposal among the delegates.

It appeared that the countries favoring a 200-mile jurisdiction, such as Chile, Ecuador, and Peru, receded somewhat from their former extreme positions to the extent of stating that if conservation problems connected with fishing off their coasts are accommodated, their interest in extended sovereignty would diminish.

From comment in debate, most countries seemed to favor adoption of the United States proposal to endorse the recommendation of the ILC that its report on the law of the sea be referred to a special international conference for study.

On December 20 the sixth committee of the United Nations concluded its consideration of the ILC report and adopted a resolution referring the general subject of the Law of the Sea to a plenipotentiary conference to be held in Rome, early in 1958.

This resolution was introduced by 23 nations: Australia, Brazil, Ceylon, Cuba, Denmark, Dominican Republic, France, Greece, Guatamala, Mexico, Netherlands, New Zealand, Norway, Pakistan, Panama, Philippines, Portugal, Spain, Sweden, Thailand, United Kingdom of Great Britain and Northern Ireland, United States, and Uruguay. A total of 65 countries approved the resolution, with one dissenting vote--Iceland.

In view of the numerical support for this resolution, it may be expected to receive approval of the General Assembly. It is not known when the resolution will come before the General Assembly.

The text of the final resolution is as follows:

"The General Assembly,

"Having received the report of the International Law Commission covering the work of its 8th Session which contained draft articles and commentaries on the Law of the Sea,

"Recalling that the General Assembly in Resolution 798(8) of December 7, 1953, 'having regard to the fact that the problems relating to the high seas, territorial waters, contiguous zones, the continental shelf and the superadjacent waters were closely linked together juridically as well as physically,' decided not to deal with any aspect of those matters until all the problems involved had been studied by the International Law Commission and reported upon by it to the General Assembly.

"Considering that its Resolution 899 (9) of December 14, 1954, requested the International Law Commission to submit its final report on those subjects in time for the General Assembly to consider them 'as a whole' at its Eleventh Session,

"Taking into account also Paragraph 29 of the Commission's report wherein, 'the Commission considers--and the comments of governments have confirmed this view--that the various sections of the Law of the Sea hold together, and are so closely interdependent that it would be extremely difficult to deal with only one part and leave the others aside,'

"1. Expresses its appreciation to the Commission for its valuable work on this complex subject;

"2. Decides, in accordance with the recommendation contained in Paragraph 28 of the Commission's report, that an international conference of plenipotentiaries should be convoked to examine the Law of the Sea, taking account not only of the legal, but also of the technical, biological, economic and political aspects of the problem, and to embody the results of this work in one or more international conventions or such other instruments as it may deem appropriate;

"3. Recommends that the conference should study the question of free access to the sea of landlocked countries, as established by international practice or treaties;

"4. Requests the Secretary-General to convoke such a conference in Rome early in March 1958;

"5. Invites all states, members of the United Nations, and states, members of the specialized agencies to participate in the Conference and to include among their representatives experts competent in the fields to be considered;

"6. Invites the interested specialized agencies and inter-governmental bodies to send observers to the conference;

"7. Requests the Secretary-General to invite appropriate experts to advise and assist the Secretariat in preparing the conference, with the following terms of reference:

"a. To obtain in the manner in which they think most appropriate from the invited governments any further provisional comments the governments may wish to make on the Commission's report and related matters, and to present to the conference in systematic form any comments made by the governments and the relevant statements made in the Sixth Committee in the Eleventh and previous sessions of the General Assembly;

"b. To present to the conference recommendations concerning its method of work and procedure, and other questions of an administrative nature;

"c. To prepare or arrange for the preparation of working documents of a legal, technical, scientific or economic nature in order to facilitate the work of the conference;

"8. Requests the Secretary-General to arrange also for the necessary staff and facilities which would be required for the conference, it being understood that the technical services of such experts as are needed will be utilized;

"9. Refers to the conference the Commission's report as a basis for its considerations of the various problems involved in the development and codification of the Law of the Sea; and also the verbatim records of the relevant debates in the General Assembly, for consideration by the conference in conjunction with the Commission's report;

"10. Requests the Secretary-General to transmit to the conference all such records of worldwide or regional international meetings as may serve as official background material for its work;

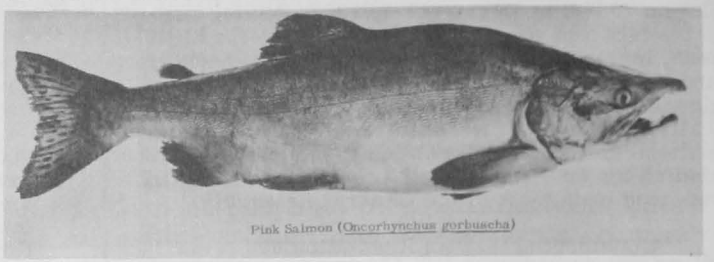
"11. Calls upon governments invited to the conference and the groups thereof to utilize the time remaining before the opening of the conference for exchanges of views of the controversial questions relative to the Law of the Sea;

"12. Expressed the hope that the conference will be fully attended."

Note: Also see Commercial Fisheries Review, October 1956 p. 41 and September 1956 p. 49.

UNITED STATES AND CANADA SIGN PINK SALMON CONSERVATION AGREEMENT

The United States and Canada on December 28, 1956, signed in Ottawa a Protocol to the Sockeye Salmon Convention of 1930 placing the pink salmon of the Fraser River System under the terms of the Convention. Signing on behalf of the United States were Ambassador Livingston T. Merchant and William C. Herrington, Special Assistant for Fisheries and Wildlife to the Under Secretary of State. Minister of Fisheries James Sinclair signed for Canada, a December 28, 1956, news release from the State Department announced.



Pink Salmon (Oncorhynchus gorbuscha)

The Protocol amends the 1930 Convention in a number of ways. Its most important change is to place the pink salmon of the Fraser River System under the jurisdiction of the International Pacific Salmon Fisheries Commission. The Commission which was established in 1937 consists of three representatives each from the United States and Canada. It has had since 1937 the responsibility for the investigation and management of the Fraser River sockeye salmon. Its success in the sockeye fisheries has been outstanding.

The Commission will now have the same powers of research and regulation over pink salmon as it has over sockeye salmon. It is charged with so regulating the pink salmon fisheries as to achieve maximum sustainable productivity of the pink salmon stocks. At the same time it must, so far as is possible, divide the catch equally between United States and Canadian fishermen. The Convention area remains unchanged. It covers Juan de Fuca Strait, part of Georgia Strait, the Fraser River System, and an area of the high seas of the Pacific Ocean. The Fraser River pink salmon, which make their spawning runs every two years through the Straits, account for much of the $10,000,000 pink salmon catch made every other year by the fishermen of Washington and British Columbia.

Other modifications made by the Protocol in the Convention include an increase in the size of the Commission's Advisory Committee and a greater flexibility in the Commission's power to issue regulations in certain areas. The Protocol also provides for intensive investigation by the Commission and by research agencies on both sides of the border of all pink salmon stocks which enter Convention waters. The Protocol calls for a United States-Canadian Government meeting in its seventh year of operation for a review of research findings and a consideration of further arrangements for pink salmon conservation.

The Protocol is subject to the advice and consent to ratification of the United States Senate. It will enter into effect upon the exchange of ratifications by the two Governments.

The Protocol is as follows:

PROTOCOL

Between the United States of America and Canada to the Convention for the Protection, Preservation and Extension of the Sockeye Salmon Fisheries in the Fraser River System, signed at Washington on the 26th day of May 1930.

The Government of the United States of America and the Government of Canada, desiring to coordinate the programs for the conservation of the sockeye and pink salmon stocks of common concern by amendment of the Convention between the United States of America and Canada for the Protection, Preservation and Extension of the Sockeye Salmon Fisheries in the Fraser River System, signed at Washington on the 26th day of May, 1930, hereinafter referred to as the Convention,

Have agreed as follows:

Article I

The Convention as amended by the present Protocol shall apply to pink salmon with the following exception:

The understanding stipulated in the Protocol of Exchange of Ratifications signed at Washington on the 28th day of July, 1937, which provides that "the Commission shall not promulgate or enforce regulations until the scientific investigations provided for in the Convention have been made, covering two cycles of sockeye salmon runs, or eight years;" shall not apply to pink salmon.

Article II

The following words shall be deleted from the first sentence of Article IV of the Convention:

". . . that when any order is adopted by the Commission limiting or prohibiting taking sockeye salmon in any of the territorial waters or on the High Seas described in paragraph numbered 1 of Article I, such order shall extend to all such territorial waters and High Seas, and, similarly, when in any of the waters of the United States of America embraced in paragraph numbered 2 of Article I, such order shall extend to all such waters of the United States of America, and when in any of the Canadian waters embraced in paragraphs numbered 2 and 3 of Article I, such order shall extend to all such Canadian waters, and provided further . . . ."

Article III

The following paragraph shall be added to Article VI of the Convention:

"All regulations made by the Commission shall be subject to approval of the two Governments with the exception of orders for the adjustment of closing or opening of fishing periods and areas in any fishing season and of emergency orders required to carry out the provisions of the Convention."

Article IV

Article VII of the Convention shall be replaced by the following Article:

"The Commission shall regulate the fisheries for sockeye and for pink salmon with a view to allowing, as nearly as practicable, an equal portion of such sockeye salmon as may be caught each year and an equal portion of such pink salmon as may be caught each year to be taken by the fishermen of each Party."

Article V

Paragraph (3) of the understandings stipulated in the Protocol of Exchange of Ratifications signed at Washington on the 28th day of July, 1937, shall be amended to read as follows:

"That the Commission shall set up an Advisory Committee composed of six persons from each country who shall be representatives of the various branches of the industry including but not limited to, purse seine, gill net, troll, sport fishing and processing, which Advisory Committee shall be invited to all non-executive meetings of the Commission and shall be given full opportunity to examine and to be heard on all proposed orders, regulations or recommendations."

Article VI

1. The Parties shall conduct a coordinated investigation of pink salmon stocks which enter the waters described in Article I of the Convention for the purpose of determining the migratory movements of such stocks. That part of the investigation to be carried out in the waters described in Article I of the Convention shall be carried out by the Commission.

2. Except with regard to that part of the investigation to be carried out by the Commission, the provisions of Article III of the Convention with respect to the sharing of cost shall not apply to the investigation referred to in this Article.

3. The Parties shall meet in the seventh year after the entry into force of this Protocol to examine the results of the investigation referred to in this Article and to determine what further arrangements for the conservation of pink salmon stocks of common concern may be desirable.

Article VII

Nothing in the Convention or this Protocol shall preclude the Commission from recording such information on stocks of salmon other than sockeye or pink salmon as it may acquire incidental to its activities with respect to sockeye and pink salmon.

Article VIII

The present Protocol shall be ratified and the exchange of the instruments of ratification shall take place in Ottawa as soon as possible. It shall come into force on the day of the exchange of the instruments of ratification.

In witness whereof the undersigned, duly authorized by their respective Governments, have signed this Protocol and have affixed thereto their seals.

Done in duplicate at Ottawa this 28th day of December 1956.

The conference between United States and Canadian delegates also took note of the serious threat which offshore net fishing poses to the conservation of both pink and sockeye salmon stocks and adopted a resolution calling this matter to the attention of the governments and recommending immediate action on their parts to solve the problem.

Algeria

SHRIMP FISHERY: The Algerian catch of shrimp for 1953-55 averaged 1,559 metric tons a year and was made up predominantly of small gray shrimp, about 40-45 count to the pound heads on. About 80 percent of the catch is taken from off the coasts of the Departments of Algeria and Oran.

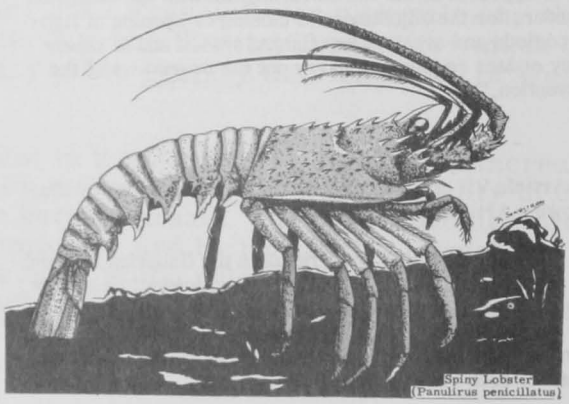
The export market is almost exclusively confined to shipments to France, according to an October 31, 1956 dispatch from the United States Consul in Algiers. Exports of shrimp to France are combined with those of spiny lobster and other crustaceans, and it is therefore impossible to estimate the quantity and the value.

There are no shrimp canneries in the country and equipment employed by the fishermen is reported to be old and outmoded. The catch is all made by vessels of Algerian registry, and it is believed that no foreign capital is invested in the fishery.

There is no government program, at present, devoted to the development of the shrimp fishery. The market is limited somewhat by the high cost of transport from Algerian ports to the French market. As far as it can be determined at this time, France has no restrictions on the importation of shrimp, but it is possible that such restrictions could be applied to protect the market for Algerian shrimp.

Australia

HIGH STANDARDS SET FOR FROZEN SPINY LOBSTER TAIL INDUSTRY: The problems encountered in maintaining a high standard of quality for Australian spiny lobsters are discussed in an article by Dr. Keith Sheard, a fisheries research officer of Australia's Division of Fisheries and Oceanography, which appeared in the October 1956 issue of the Australian Commonwealth Director of Fisheries Fisheries Newsletter. According to Dr. Sheard, the Australian frozen spiny lobster tail trade is a luxury industry depending for success on a high standard of quality. Excerpts from the article follow:



Spiny Lobster (Panulirus penicillatus)

Processing and refrigeration of spiny lobster or crayfish in Australia are of a high standard and the inspection system of the Australian Department of Primary Industry is first class, while the exporters show a high degree of responsibility. The packing plants, however, can process the spiny lobster only in the condition they get them. They cannot improve an already damaged product, particularly when the damage is not easily visible. And yet, any bruising of the spiny lobster, anything that leads to a leakage of blood into the tissues, can result in an unappetizing product, when it is marketed months later, and thousands of miles away.

In 1950, when the Australian export industry of frozen spiny lobster tails was still in its early stages a pamphlet, Care in the Handling of Crayfish, was published as Fisheries Bulletin No. 3 of the West Australia Fisheries Department. This work showed that a number of kinds of darkening or discoloration of the meat could occur during freezing, cold storage, or on thawing. In each case the remedies proved to be very simple even though the chemistry of the discoloration process was often most complicated.

If the shell above the blackened areas is examined very carefully it will often show signs of bruising, and further that the underlying tissues have been damaged. This often happens during catching or sorting, or transport to the factory or freezer boat.

When a spiny lobster is caught and hauled to the surface, the change in its living conditions is sudden and very great. The temperature is altered from the coolness of the sea bottom to the warmth or heat of the boat and bags. The spiny lobster is brought very quickly from its usual darkness to bright sunlight and from high to low pressures. Its oxygen supply becomes limited to the small quantities contained in the film of water around the gills; this oxygen supply, which is renewed very slowly from the air, decreases as the temperature rises. Since there is no current of water to carry them away, the waste products spread over and poison the gills. Changes then occur in the spiny lobster meat and the animal weakens and at length dies. During these changes the meat becomes less and less fit for processing and poor quality frozen tails result.

If, in addition to this, the spiny lobster is crushed or bruised, or otherwise badly handled, each damaged spot leaks its small amount of blood and fluid. Sooner or later darkening appears and the tail loses in value.

Even very simple care on catcher and transport boats, and while the spiny lobster are stored for processing, can make considerable difference to the quality of the pack.

For example, a major cause of bruising and injury is the practice of packing large spiny lobster with small ones. To offset this many fishermen use bag holders, and have two bags open, one for large and one for small spiny lobster. Where wells are used, one side is kept for the larger spiny lobster and the other for the smaller. The large are very powerful and the smaller can be badly damaged as the big ones struggle, particularly in the bags.

Every fisherman, in order to safeguard his income is urged to take precautions along the following lines to insure that every care is taken to see that the spiny lobsters are not injured or damaged at any time.

(a) The spiny lobster should be kept in the light for as short a time as possible, and should always be kept out of direct sunlight.

(b) Temperatures should be kept low.

(c) Overcrowding in wells or crates should be avoided.

(d) Storage in crates or wells should always be in strong currents or tides.

(e) Spiny lobster should not be stored in boat wells or in crates at the sea surface during periods of calm, hot weather.

(f) No spiny lobster, whether loose or in bags, should be exposed to the wind, as this rapidly dries the film of water on the gills.

(g) Bags should never be stored in layers such that there is any crushing or bruising affect on the spiny lobster either during storage and transport or on the weighing scales.

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TASMANIA SCALLOP CATCH SETS NEW RECORD: During the 1956 scallop season the production of scallop meats in the Australian State of Tasmania reached

a record total of 525 tons. This total compares with 511 tons of scallop meats in 1955. The new beds located in Norfolk Bay produced 363 tons of scallop meats, according to the Australia Commonwealth Director of Fisheries Fisheries Newsletter of November 1956.

A large proportion of the Norfolk Bay scallops were mature and towards the end of July showed signs of spawning. However, additional beds of smaller scallops were located and most boats operated on them until the end of the season. Many fishermen reported having located other beds where young scallops were plentiful, so prospects for future years appeared to be sound.

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WHALE MEAT EXPORTED TO THE UNITED STATES: In addition to pearl shell, spiny lobster, whale oil, tuna, and shrimp. Australian fisheries have now added a new export--whale meat for use as animal food.

The whale meat is being exported by the whaling station at Byron Bay, northern New South Wales. The company had a contract to supply a minimum of 150 tons of the meat in 1956 to a firm in California.

The contract is the result of two visits to Australia by the Vice-President for the United States company.

The meat is chilled and minced through 1-inch plate at the whaling station, frozen at Byron Bay and Coolangatta, and held at Brisbane in cold storage pending shipment.

The Perth newspaper West Australian says another whaling company has received an offer from the California firm for 2,000-3,000 tons of whale meat. "A spokesman" for the company said no decision would be made until after the 1956 whaling season, states the Fisheries Newsletter for September 1956.

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SHRIMP FISHERY CONTINUES TO SHOW PROMISE: Modern packing and processing methods, plus the assurance of regular refrigerated cargo space to both the east and west coasts of the United States, has added shrimp to the list of profitable fishery products exported by Australia. It was predicted in the November 2, 1956 issue of The Fishing News, a British fishery trade publication, that exports to the United States market will reach 1 million pounds by the middle of 1957 and be close to 5 million pounds (valued at US$2.8 million) by 1961.

The center of the shrimp fishery for the export trade is located in Evans Head, a small town about 510 miles north of Sydney on the east coast of Australia. The Evans Head Fishermen's Cooperative, which was formed eight years ago, has a fleet of 41 vessels equipped for offshore fishing. These vessels will concentrate on the shrimp fishery. The Cooperative will sell their shrimp catches to an Australian export firm which acts as agents for a United States marketing firm.

The shrimp cooperative located at Evans Head has purchased machinery from the United States for washing, grading, deheading, and peeling the shrimp. The shrimp will be layer-packed by hand in 2-, 5-, and 7-pound packages for quick freezing. A new building and a quick-freezing plant valued at US$90,000 are now under construction at that port.

Australia does not produce the jumbo size shrimp (about 10-15 count), but has one variety known as the tiger shrimp, which will average 2-3 a pound. This species

varies in color from olive green to light brown and sometimes weighs as much as one pound each. There are three other distinct varieties, the small green school shrimp, the green or brown king shrimp, and the cream-colored banana shrimp, which is a tropical variety found in quantity only in Queensland waters. The Australians prefer the small green school shrimp, but the banana variety is the type that will be exported to the United States. This type, headless and peeled, will range from 25-35 a pound. The small green school shrimp and the tiger shrimp are found on muddy bottom, the king shrimp on sandy bottom, and the banana shrimp have been caught at varying depths and times--during the daytime in 15 fathoms, at night between 25-30 fathoms.

Some of the Evans Head trawlers are fitted with echo-sounders which enable them to fish in deep water where the larger varieties are found. Most of the vessels have ship-to-shore radios for contact with the base plant, for obtaining the latest information on weather conditions and on areas of good production.

The fisherman are now beginning to reap the benefit of intensive research on the part of the New South Wales Department of Fisheries over the past few years.

The new shrimp fishery is reported to be no gold mine for the shrimp trawlers and fishermen. The price paid to the boats for heads-on shrimp is about 25 U. S. cents a pound. A weight loss of almost 40 percent in the heading and peeling process, plus other coasts such as packaging, freezing, transport, etc., add considerably to the export value and the ex-vessel price cannot be higher than 25 cents a pound.

Note: Also see Commercial Fisheries Review, November 1956, p. 71-73; October 1956, p. 52; April 1956, p. 30; and February 1956, p. 44.

Canada

BRITISH COLUMBIA SALMON PACK, 1956: The British Columbia pack of canned salmon for the 1956 season ending in November totaled 1.1 million standard cases (48 1-lb cans), the Canadian Department of Fisheries reported on December 5, 1956.

The pack of canned salmon during 1956 was 20.9 percent below the previous year's pack and was down about 28.5 percent from the average for the six-year period 1951-56. The pack of pink salmon was lower (56.3 percent below 1955), but this was not unexpected as 1956 is not a cycle year for this species. The sockeye or red salmon pack was up 30.8 percent from 1955, but was disappointing as a better catch was anticipated from the relatively good year-classes between 1951 and 1953.

Table 1 - British Columbia Canned Salmon Pack, 1951-56

Species	1956	1955	1954	1953	1952	1951
	(Standard Cases--48 1-lb. Cans to Case)					
Sockeye (red)	320,124	244,821	680,718	510,147	449,494	428,299
Spring (king)	11,639	17,853	14,080	13,049	9,279	13,698
Steelhead	1,248	1,590	3,733	3,030	3,763	3,656
Blueback	10,549	10,544	4,302	2,055	5,583	13,237
Coho (silver)	202,456	175,179	123,778	108,109	59,370	291,303
Pink	363,181	831,253	335,550	794,764	679,182	735,468
Chum (keta)	203,633	124,860	580,575	394,113	91,886	460,421
Totals	1,112,830	1,406,100	1,742,736	1,825,267	1,298,557	1,946,082

Note: Also see Commercial Fisheries Review, December 1955, p. 51.

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NEW FISHING VESSEL "SLEEP ROBBER" IS A VERSATILE TYPE: Canada's newest and most modern fishing vessel, the Sleep Robber, sailed from Vancouver on her maiden trip at the end of September 1956 and began fishing for halibut in the Pacific ocean.

The Sleep Robber, built to special design for its owner, has just about everything that is known to make a fishing vessel efficient and comfortable for its crew.

Built in New Westminster, British Columbia, the vessel is an entirely new type which can be used for seining, both for salmon and herring, halibut long-lining, and otter trawling.

The new fishing vessel is 72 feet in length, with a beam of 20 feet. She is powered by a Diesel engine with actuated reverse and reduction gear, which develops 360 Bhp. continuously and is naturally aspirated. It turns a 68 x 43 four-blade propeller at 340 r.p.m. The vessel cruises at 10 knots and is capable of a 12-knot speed when necessary.

The builders of the vessel point with special pride to the main winch, which, they say, is the most advanced feature in the design. This is combination equipment, partly hydraulic and partly mechanical, which operates seines, long lines, and dragger gear.

A striking feature in the appearance of the ship is the absence of the seine table, now becoming a thing of the past, supplanted by a power block suspended from the boom, which takes over the work of hauling in the seine net.

The mast and boom of the Sleep Robber are of steel, and stainless steel is much in evidence in interior fittings. However, the hull of the vessel is mostly timber. Oak frames and fir went into the hull, with plywood for the housing. Decks are of fibre glass, as also are the two lifeboats. Bulkheads are of steel.

In the galley are an oil stove and a gas range, with a deep freezer and a refrigerator for the crew's food supplies. The men's berths are equipped with wash basins of stainless steel and there is a shower for general use.

Navigation equipment includes two radiophones, a radar, a direction finder, and a combination echo-sounder. The latter gives readings for 530 fathoms on slow scale and 65 fathoms on fast scale for herring, and a recording sounder for night running.

An intercom system will reach members of the crew in any part of the vessel. In time-off periods the men will be able to see what is going on in the world by means of two television receivers, one in the captain's room and one in the crew's quarters.

The fish hold is provided with special hold-over plates to preserve ice and thus prolong fishing time. A brine-freezing refrigeration system is installed. The maximum carrying capacity is estimated at 150 tons of herring or lesser quantities of salmon, halibut, or trawl fish.

The cost of building and equipping the Sleep Robber is estimated at approximately C$150,000, according to the September 1956 Trade News of Canada.

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NEWFOUNDLAND SALT FISH INDUSTRY REVIVAL PROPOSED: During an address before, the opening session of the Newfoundland Fishermen's Federation Convention, the Prime Minister of Newfoundland states his government will support actively a revitalization of the salt fish industry in that Province.

The Prime Minister indicated that the policy of the provincial government would be to encourage the improvement of the salt cod fishery, rather than the frozen fish industry. This would reverse recent trends towards expansion of the frozen fish industry.

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TWELVE-MILE LIMIT FOR FISHERIES TERRITORIAL WATERS PROPOSED: At a meeting of the United Nations' Committee Six in New York on December 7, 1956, the Canadian delegate stated Canada would oppose extension of territorial waters beyond 3 miles for various reasons, including security. He stated further, however, that 3 miles was not adequate for jurisdiction over fisheries and, in view of the fact that nations recognize special jurisdiction for customs, sanitation, etc., over a contiguous zone of 12 miles, he stated it was reasonable to include fisheries in this contiguous zone. He emphasized that the jurisdiction of the coastal state over fisheries within this zone must be complete.

Committee Six has been considering the report of the International Law Commission pertaining to all aspects of the law of the sea, including the Continental Shelf, breadth of the territorial sea, innocent passage, etc.

When Committee Six resumes its work, it is expected that many nations will have comments on Canada's proposal.

Debate on the recommendation of the International Law Commission that another world conference be held on fisheries has indicated that most nations will favor such a conference early in 1958.

Denmark

SECOND INTERNATIONAL FISHERIES TRADE FAIR: The Second International Fisheries Trade Fair will be held at the Exhibition Hall Forum in Copenhagen from from September 27 until October 6, 1957. It was decided to hold the second fair after many exhibitors, who exhibited at the first fair, requested the sponsors to hold another fair in the near future. Preparations are already under way for the next meeting between people in the fishing industry from all over the world. This is due to the fact that the First Fisheries Trade Fair was a much greater success than anticipated, large sales were made, exhibitors made many useful contacts, and the interest shown in the entire fishing industry was much greater than anticipated.

The May 1956 Fair was the first fair of its kind on an international basis. Nearly 50,000 people visited the Forum, and half of them were buyers or prospective buyers, who during the 10 days of the exhibition ordered goods amounting to about US$14.5 million.

A fair of even larger scope and greater variety is now being prepared in Copenhagen for the autumn of 1957. It has already been proved that the geographical position of Copenhagen makes it ideal for international fairs. It is a city which has an airport and a harbor with frequent connections with the rest of the world. It possesses good hotels and ideal exhibition areas at Forum and at the harbor.

The sponsors state that everybody interested in the fishing industry is welcome to participate in the fair, but exhibitors are advised to forward their applications at an early date. The address is: The International Fisheries Trade Fair, Forum, Copenhagen, Denmark.

Note: See Commercial Fisheries Review, January 1956, p. 47.

German Federal Republic

PNEUMATIC FISH DISCHARGER DEVELOPED: A machine for unloading fish from the holds of fishing vessels that utilizes the same suction principle as the vacuum cleaner has been developed by a West German machine company. The company, which is reported to be one of the leading West German producers of pneumatic

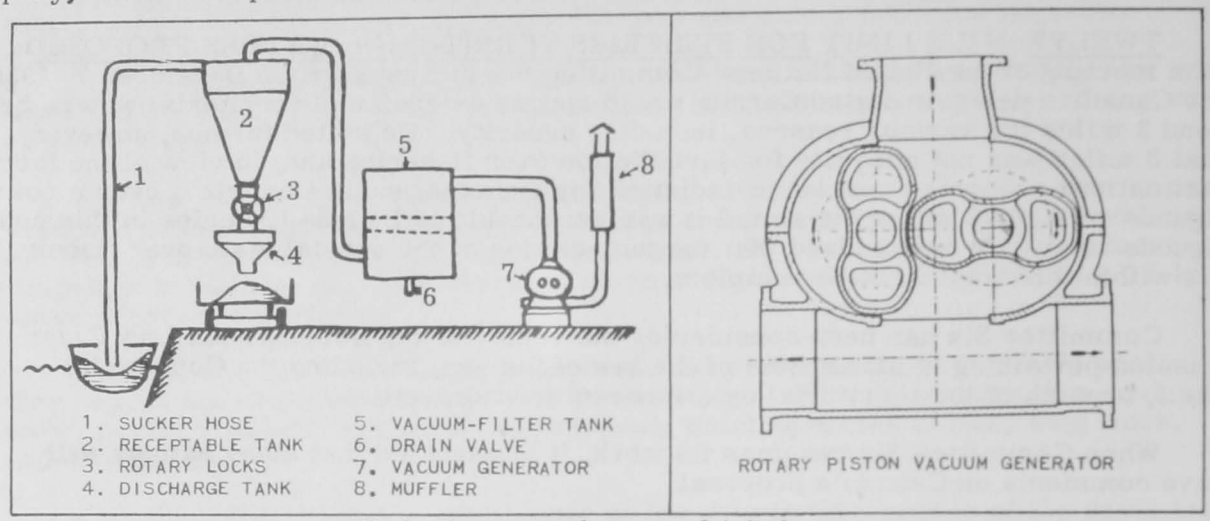

Fig. 1 - Shows outlay of pneumatic fish discharger.

conveyors, designed the new machine at the request of the Norwegian fisheries. Preliminary tests indicate that this new type unloader should be used only for discharging fish destined for reduction plants or other industrial use. Experts who have studied the pneumatic fish discharge agree that it will be extremely difficult to elim-

Fig. 2 - Shows pneumatic fish discharger set-up to unload fish directly from a vessel.

Fig. 3 - Discharge end of pneumatic fish unloader.

inate the chafing of the skin and the rupturing of the stomach walls to such a degree that the machine could be used to unload fish to be used for human consumption.

Preliminary tests of the new machine were made in the fishery port of Bremerhaven. It was found that with a crew of 3-4 operators the machine was capable of discharging about 100,000 pounds of fish an hour. This is about twice as much as is now handled by existing equipment at Bremerhaven, states a November 19, 1956, dispatch from the United States Consulate at Breman.

Tests are still being made to improve the machine, such as giving the suction tubes greater flexibility and operating range, reducing the chafing of the fish by rearranging the inlet into the receptacle tank, and in general making the operation of the machine foolproof.

Greece

FISHING INDUSTRY EXPANDS SINCE END OF WORLD WAR II: The 1954/55 fish catch by Greek fishermen amounted to 60,000 metric tons as compared with a prewar catch of 25,000-35,000 tons. Fishing activity has increased steadily since the end of World War II with the help of a development program, sponsored and financed by the United States Aid Mission.

Before the war about 3,000 small boats engaged in offshore fishing, few of which were motor driven. By 1955, the number of such boats had increased to 10,500, of which 2,500 are motor propelled. The number of motor trawlers and purse seiners increased from about 500 in 1938 to 683 in 1954 and 745 in 1955. Most of these boats are of postwar construction, and all are equipped with imported or locally-made Diesel or semi-Diesel engines. Many have cold storage and radio communication facilities and some even carry modern depth finders. Since 1953 two medium-size open-sea fishing boats have been added to the country's fishing fleet.

Fish processing also has made marked progress. Greece now has some 120 packing plants with an annual output of about 6,000 tons. There are also 2 fish-canning plants with a total annual output of 500 tons. Plans are under way for the construction of modern fish markets in a number of distribution centers, including Piraeus. These will be equipped with modern handling and storage facilities.

Progress is being made in restocking and developing fresh-water fisheries, particularly in Northern Greece.

The sponge-fishing industry also has made considerable headway since the war, mainly because of the annexation of the Dodecanese Islands, where sponge fishing is an age-long tradition. Before the war about 100 vessels engaged in sponge fishing in Greek waters and along the North African coast, bringing in an annual catch of 40 to 60 tons. In 1954, 144 sponge-fishing craft were in operation. In 1955 the number increased to 159. Production was 130 tons in 1954 and 135 tons in 1955. Competition from synthetic sponges has had an adverse effect on the demand for sea sponges and exports are becoming increasingly difficult. However, stocks have not accumulated in recent years.

Despite the very substantial progress made in agricultural and fishery production in the postwar period, Greece still depends on imports for a substantial portion of its food requirements.

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GRANTS MADE FOR FISHING EQUIPMENT: The Greek Government has granted the sum of US$500,000 to be paid through the Bank of Agriculture for the purchase of fishing equipment. An additional sum of US$580,000 was granted for the same purpose to the owners of vessels fishing in the Atlantic Ocean, according to Aleia (September 1956), a monthly review of the Greek fisheries.

Hong Kong

INCREASED SHRIMP LANDINGS: The large increase in the number of mechanized boats engaged in shrimp trawling in 1956, as compared with 1955, resulted in rather high total landings, but with a much reduced catch per unit of effort. Ex-vessel prices were slightly higher than last year. This was due to the newly-developed export trade in frozen shrimp.

As opposed to the rest of the fishing fleet, which is almost entirely owner-operated, many shrimp trawlers are now owned and financed by persons from outside the industry. Some 30 to 40 of this latter category of vessels were temporarily laid up during the last quarter of 1956 as income did not cover expenses due to poor catches (Current Affairs Bulletin, November 1956, of the Indo-Pacific Fisheries Council).

Iceland

FISHERIES TRENDS FOR 1956: With all principal fishing seasons approaching completion in Iceland, it is possible to discern the main outline of the industry for 1956. Briefly, the total herring catch was almost double the previous year because of the better north coast season (83,000 metric tons in comparison with 45,000), and catches of all other species were about unchanged at 294,000 tons in comparison with 298,000 tons, points out a United States consular dispatch from Reykjavik (November 9, 1956).

In general Iceland will accordingly end the year with no significant carryover of stockfish, salt fish or salted herring and a smaller than usual carryover of frozen fish.

Frozen Fillets: Production of frozen fillets amounted to 44,000 tons in comparison with 43,000 tons the previous year, with just under half of the total catch of groundfish species utilized for fillets. The Soviet Bloc took 38,000-40,000 tons of fillets in 1956 in comparison with 32,000 in 1955. Of this, the U.S.S.R. took 28,000 tons in 1956 in comparison with 20,000 in 1955. Exports to the United States were about 15,000 tons in comparison with 11,000 tons in 1955. Because of the greatly increased Soviet purchases and the slightly increased purchases from the United States, there was expected to be no significant carryover on January 1, 1957. For the same reasons a larger share of the 1957 catch is expected to be diverted for freezing.

Herring Meal and Oil: Production in 1956 was expected to be about eight times that of 1955 due to the larger catches in the north. The year nevertheless was another "failure" for this industry which is equipped to handle the tremendous catches of the North Coast of the "good old days." Prices were generally unchanged; demand strong.

Other Fish Meal and Oil: Production in 1956 was higher than in 1955, since $2\frac{1}{2}$ times as much white fish was delivered to the processing plants. This resulted primarily from the storage glut in the frozen warehouses during the summer. Prices were strong, but some carryover was expected.

Fresh Fish on Ice Exported Direct: Fresh fish on ice exported direct in 1956 was almost twice that of 1955 (5,000 tons in comparison with 2,700), but it is still a small item. The trade is not generally favored by the Government since frozen fish earns the nation more foreign exchange, but during the fall, with prices in

Western Germany much higher than those in Iceland, it has been attractive to the trawler owners, a majority of whom are currently focusing their efforts in this direction.

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TRAWLERS RESUME ICED-FISH TRADE: In spite of the agreement previously reported that two-thirds of the Icelandic trawler fleet would fish for the Icelandic freezing plants in return for higher guaranteed prices for fish, 27 trawlers are currently delivering their catches to the German market for fresh fish on ice in comparison with 22 when the agreement was negotiated, a November 1, 1956, report indicates.

Icelandic South Coast Herring Catch as of October 20, 1956 With Comparisons

Utilization	1956	1955
	(Metric Tons, Round Weight)	
Salting	7,071	10,795
Freezing	7,199	7,983
Reduction	1,124	922
Total	15,394	19,700

Prices for iced fish in Germany in October were about three times those paid in Iceland and there seemed to be little possibility that the trawlers would forego this profitable trade until the differential in prices diminished.

HERRING CATCH: The Icelandic south coast 1956 herring catch was running 25 percent under that of the previous year as of October 20.

India

ALL-INDIA FISHERIES CONFERENCE HELD IN MADRAS: The first All-India Fisheries Conference was held in Madras city on September 19 and 20, 1956. The Madras Governor inaugurated the conference and the Government of India Minister for Agriculture presided. About 100 delegates representing the various states in India, the Food and Agricultural Organization and the Technical Cooperation Mission, as well as the Norwegian fisheries experts in India participated in the conference.

Among the various developments that have taken place in the fishing industry of Madras State during this period, the Madras Minister for Agriculture enumerated these: (1) opening of new fishing grounds of different fishes; (2) establishment of a shark-liver oil industry; (3) establishment of fish farms and fish-cultural centers; (4) conservation and exploitation of tank and reservoir fisheries, pearl fisheries, and chank fisheries; (5) development of edible oyster industry; (6) utilization of sea weeds; (7) utilization of fish wastes; (8) manufacture of byproducts; and (9) dissemination of statistical and biological information to those engaged in the fishing industry. Probably to stress the importance of the fishing industry, he concluded his address stating: "It has to be noted that the agricultural food resources of the land have almost been exploited to the maximum and we have now to turn to the sea for more food."

The India Minister of Agriculture brought out the big gulf that existed between production and consumption of fish in India and pointed out that for nutrition standards the Indian population needed the minimum of 4.0 million metric tons of fish whereas production was only about 1.1 million tons. He too enumerated the various steps taken by the Indian Government and state governments to develop the fishing industry and sounded a note of satisfaction that a considerable measure of success had been achieved "in spite of the various administrative and technical difficulties." As regards development of inland fisheries, he was optimistic of the good scope offered by the construction of large reservoirs now being undertaken in connection with river valley projects and spoke of the increased fish production from the sea,

both coastal and offshore deep waters, as a result of fishing from trawlers and powered boats. He acknowledged the "fairly generous assistance" received from foreign assistance programs and made a particular mention of the technical assistance provided by the Food and Agricultural Organization, of the equipment and technical personnel provided by the United States under the Technical Cooperation Program, and of the fishing community development project under the Indo-Norwegian Project. But with all this combined effort of the Federal and state governments and the foreign experts, the Minister said, only a good beginning had been made and a great deal remained to be done to place the Indian fishing industry on its feet.

The conference reportedly discussed several phases of the fishing industry and recommended that: (1) a Central Board of Fisheries should be established to increase and coordinate fisheries research and developmental action; (2) adequate facilities should be provided for augmenting the supply of fish seed for culture purposes by increasing the number of centers and transporting such seeds in larger quantities; (3) river valley fishery boards should be set up for undertaking fishery development programs; (4) no duty should be levied on fuel and lubricating oil used by small power fishing vessels; (5) boat building yards should be established in fishing centers; (6) special facilities should be provided for the fishing industry in minor ports; (7) fish curing should be permitted in centers approved by government; (8) cooperative societies for undertaking fishing boat construction and fish marketing should be organized to raise the socio-economic status of fishermen.

The conference is reported to have examined the particular needs of the shrimp trade and made certain recommendations for consideration by the Government Railway Ministry, a September 25 dispatch from the United States Consul in Madras points out.

The delegates of the conference also visited the Madras harbor to see new power fishing boats designed by the FAO naval architect for fishing operations off the Madras coast and the Corporation Cold Storage where fish, meat, fruits, and vegetables are stored.

The Minister visualized the possibility of setting up a Fishing Corporation to deal with matters relating to fishery operations more promptly and on a scale commensurate with India's coastline and the needs of the people. He made a strong plea for the drawing up of a realistic program for putting to sea as many fishing boats as possible during the next five years. He emphasized the necessity of state governments organizing independent fisheries departments instead of subordinate or attached units if fishery development schemes are to be implemented effectively.

Indonesia

CANNED SARDINE MARKET: At the present there is practically no sardine canning industry in Indonesia, although the catch of sardines is not inconsiderable, states a November 8 dispatch from the United States Embassy at Djakarta. The domestic sardine catch in 1955 amounted to 1,891 metric tons, valued at US$748,609 (Rp. 8,478,000).

A very small amount of sardinelike fish is canned on the island of Bali (the main Indonesian sardine fisheries are in or near the Straits between Bali and Java) and supplied to the Indonesian armed forces. There are no figures available concerning the volume or value of this production. The canning factory specializes in the canning of beef, fruits, and vegetables, and only handles sardinelike fish during the November-February season.

Current consumption is increasing and the Indonesian Government is conducting an educational program to encourage the eating of more fish, including sardines. Imports have dropped off considerably from the 1951-1952 period and will probably remain at the new lower level in view of Indonesia's foreign exchange troubles, but the domestic catch of sardines is reportedly increasing gradually, with the assistance of the United States ICA teams in Indonesia.

According to the Department of Sea Fisheries, the only size of can used to pack sardinelike fish for the Army is the tall, one-pound can, or a can of approximately that size. The most popular imported sizes are the $3\frac{1}{2}$- to 5-ounce flat cans and the 8-ounce ovals, although 15-ounce ovals and one-pound tall cans are also imported.

Imported sardines packed in tomato sauce and olive oil are the most popular, representing about 40 percent of total imports of each. Sardines in brine account for the remainder of total imports. As far as can be determined, a very small amount of sardines in mustard is imported, but none in vegetable oil or in natural preparation. The low income group consumes the domestic catch and the higher income groups the imported canned sardines.

In the latter part of 1956 the retail market price of the $3\frac{1}{2}$-5 oz. can of Japanese and North African sardines packed in olive oil ranged from 10-11 cents (Rp. 11-12.5); 1-lb. tall in brine, 20-23 cents (Rp. 23-26); Portuguese 8-oz. ovals in olive oil, 15-17 cents (Rp. 17-19); and Japanese and Dutch 15-oz. ovals in tomato sauce, 9-19 cents (Rp. 10-22).

Table 1 - Indonesian Imports of Canned Sardines, 1955

Country of Origin	Quantity	Value	
	Metric Tons	Rp. 1,000	US$1,000
Japan	1,015	2,954	261
Netherlands	359	1,130	100
United States	108	316	28
Portugal	9	57	5
Norway	9	57	5
Denmark	8	46	4
South Africa	13	43	4
Morocco, Algeria, and Tunisia	11	36	4
Total	1,539	4,659	411

The United States is the third most important supplier of canned sardines to Indonesia and very likely will maintain that position in the near future. Imports of canned sardines will continue to be necessary because of the lack of cannery facilities in Indonesia; however, Indonesia's present foreign exchange position may force the Government to restrict these imports. One effective restriction against imported canned sardines is the Indonesian import surcharge of 300 percent applicable regardless of origin. It is interesting to note that American exports of canned sardines to Indonesia dropped from a postwar high of 9,699 metric tons (valued at US$995,320 or 11,272,000 rupiahs) in 1951 to the 1955 level of 108 metric tons (US$27,903 or 316,000 rupiahs). Imports of United States canned sardines in 1953 and 1954 were even lower than those in 1955. Total imports of canned sardines from all countries dropped from 18,089 metric tons (US$1,865,784 or 21,130,000 rupiahs) in 1951 to 1,539 metric tons (US$411,479 or 4,660,000 rupiahs).

Imported canned sardines are purchased by local import firms for distribution to wholesalers and retailers in the larger cities of Indonesia.

Italy

CANNED SARDINE MARKET: The Italian canning industry packs a limited quantity of sardines. The industry was more prosperous before the loss of the Istrian peninsula to Yugoslavia after World War II, states a dispatch (October 22) from the United States Embassy at Rome. Several canning plants were located in that area, the best for sardines in the Mediterranean basin. The quality of domestic fish and the high operating cost of the Italian canning industry, as compared to that of other countries, are factors which prevent competitive prices in a liberalized trade. At present two or three large companies and several small firms engage in packing preserved sardines with an estimated annual output of 500-600 metric tons; this is less than 10 percent of national consumption. According to local dealers, Italian sardines are not preferred by consumers because they are very small and have relatively large bones.

National consumption of canned sardines ranges from 6,000 to 7,000 metric tons yearly, judging from import and production figures. The most popular size of can in Italy is flat, about 180 grams (6.3 oz.) gross weight, and the condiment is chiefly olive oil except for a small percentage of Moroccan fish in vegetable oils. Sardines preserved in olive oil with special ingredients and additives such as lemon, tomato, etc., and in some instances boned, are sold only in a very few large and central groceries in main cities but have very little importance in the over-all market.

Table 1 - Representative Italian Retail Prices for Canned Sardines

Type	Gross Weight		Net Weight		Price	
	Grams	Ounces	Grams	Ounces	Lire/Can	U.S. Cents/Can
In olive oil:						
Portuguese	250	8.8	180	6.3	220	35
"	180	6.3	125	4.4	130	21
Italian	180	6.3	100	3.5	120	19
"	180	6.3	120	4.2	110	18
Moroccan	180	6.3	125	4.4	90	14

Note: Values converted at the rate of 625 lire equal US$1.

In 1955, total imports of sardines and anchovies amounted to 10,640 metric tons, of which 5,392 were from Portugal, 3,765 from Spain, 736 from French Morocco, and 581 from Yugoslavia. Efforts to distinguish the quantity of sardines and of anchovies included in this group produced the following estimates: about 5,000 metric tons of sardines were estimated to have been imported from Portugal, and the remaining 300-400 tons were anchovies; from Spain, 3,000 metric tons of anchovies and 600-700 tons of sardines. The 736 metric tons imported from French Morocco were estimated to be all sardines, while the 581 tons imported from Yugoslavia should be considered almost all anchovies. Total imports of sardines in 1955 are thus estimated at about 6,500 metric tons. From the above it appears that Portugal is the leading supplier. This is due to the following reasons: (1) imports of canned fish from Portugal, as well as from all OEEC countries, are not subject to import restrictions; (2) Portuguese sardines have a reasonable wholesale price (about US$11.00 a case of 100 flat cans, approximately 200 grams each, f.o.b. vessel Portuguese port); and (3) the Portuguese product meets the customers' taste. Yugoslav sardines are also easily absorbed by the Italian market because of their low price, but imports from Yugoslavia as well as from Spain are subject to ministerial permits, which are granted by the Italian government in periodical and limited allotments.

Imports of canned fish from the United States are subject to ministerial license. Trade circles consulted are pessimistic about possible commerce with the United States because of the difficulties importers would encounter in obtaining import permits and because American prices are considered noncompetitive.

All cans must clearly indicate the Latin name of the fish to distinguish between true sardines and similar types. The preserving product, such as olive oil, vegetable oil, etc., must also be stated on all containers.

Japan

CANNED SARDINE EXPORT PACK, DECEMBER 1955-NOVEMBER 1956: The pack of canned sardines for export by the Japanese for the 12 months ending November 30, 1956, amounted to 537,000 cases (48 15-oz. cans to a case) as compared with 420,000 cases for the similar period in 1954/55. Exports of Japanese sardines are made principally to the Philippines, Gold Coast, Belgium, Egypt, and Burma. As of November 30, 1956, 530,000 cases had been sold for export, according to a December 7 dispatch from the United States Embassy in Tokyo.

The figures for the total pack of sardines for 1956 are not available at this time, but indications are that the pack will exceed the 1955 pack of 787,000 standard cases.

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FUNDS TO PROMOTE SALES IN U. S. VOTED BY ASSOCIATION: The Japanese International Tuna Association during its first formal meeting voted to spend the equivalent of ¥150 million (about US$417,000) during this Japanese fiscal year to promote the sale of canned tuna in the United States. The funds will be derived 50 percent from Government sources and 50 percent from industry, states a December 6 wire from the United States Embassy in Tokyo.

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FURTHER LOSSES SUFFERED BY CULTURED PEARL INDUSTRY: Following the serious loss of pearl oysters (losses valued at US$1,219,280) suffered by the pearl oyster farms in Mie Prefecture during the month of August, additional losses of US$500,000 were caused by a late summer typhoon.

Japanese oyster experts point out that one of major reasons for these disastrous losses is due to overcrowding of the oyster rafts. The concentration of oyster farms in Mie Prefecture has reached a maximum. As a result of the overcrowded conditions in Mie Prefecture authorities have decided to move 750,000 pearl oysters out of this year's crop of 30 million pearl oysters to a Hiroshima Prefecture island in the Inland Sea this year. If this experiment proves successful, a much larger number of oysters will be transplanted in 1957, states an October 8, 1956 dispatch from the United States Consulate in Nagoya.

Note: See Commercial Fisheries Review, November 1956, p. 93.

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RATIFICATION OF PEACE AGREEMENT WITH RUSSIA IMPLEMENTS FISHERY TREATY: The Japanese Diet on December 5, 1956, completed ratification of the peace agreement between Japan and the Soviet Union. The agreement ends the technical state of war between the two countries, provides for resumption of diplomatic relations, and covers fishing rights for Japanese in waters of Siberia controlled by the Soviet Union. It also includes a sea rescue pack and a trade and navigation protocol.

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EXPLORATION OF WEST AFRICAN WATERS PLANNED: As a result of the fishing restrictions imposed on Japanese fleets by the Russian-Japanese fishing agreement, the Noyama Prefecture Deep-Sea Fisheries Association is contimplating

the partial shifting of its operations to the South Atlantic Ocean off the coasts of Nigeria and the Gold Coast in West Africa. The Association's fleet comprises 11 vessels of 70 to 80 tons each and some smaller craft.

The Association states that this area has never been explored or exploited and it is not, therefore, certain that profitable fishing exists there. Consequently the Association plans to send two 30-ton vessels to explore the area during the next two years. The Noyama Prefectural Government is sympathetic with the plan but has not offered financial support. The Association expects to request financial assistance from the Gold Coast Government and from the Governments of the Eastern and Western Regions of Nigeria. No such request has yet been made, states a November 20, 1956, dispatch from the United States Consul in Nagoya.

Kenya

NYLON NETS TESTED: Nylon nets may revolutionize the African inshore fishing industry on the coast of Kenya. For the past year the Fisheries Division of the Game Department has been testing and modifying nylon nets and plants to encourage Africans to use them instead of the old cotton type.

Using a powered 20-foot Danish fishing boat, the Fisheries Division operated daily on a commercial basis and kept accurate records and cost data to determine the potential of the nets and also the boat. They found that nylon catches three times more fish than cotton; three of the nets caught 61,000 pounds of fish (including shark) in one year. Moreover, the life of nylon is about six times as great as cotton.

The major handicap for African fishermen is capital outlay, for nylon costs several times as much as cotton although this is completely offset by the extra life and fewer repairs. The Danish boats are also expensive--about £700 (about US$2,000) each--but in Zanzibar the Sultan's Government intends subsidizing Africans.

The second handicap is the almost complete lack of a fish marketing and distribution organization in East Africa. Sea fish rarely arrives at Nairobi, the largest single market. This may be overcome, however, if a group of South African businessmen who recently investigated the fishing potential in Kenya decide to go ahead. They will have to establish a cold storage and distribution system.

Malaya

CANNED SARDINE MARKET: Fish constitutes one of the main staples in the diet of the peoples of Malaya because it is inexpensive and relatively abundant. In some cases, for economic and religious reasons, it is almost the only source of meat protein. Fishing is a major occupation throughout the coastal regions of Malaya. While fresh fish constitutes the main source of supply, the importation of canned and preserved fish of all varieties is very extensive.

There are no sardine-type fish available on a large scale by fishermen supplying the Malayan market. Sardines, brislings, and pilchards therefore have found a fairly sizable market among those who have acquired the taste or in those areas where distribution and seasonal factors allow canned fish to compete in price with fresh fish. Even in the most remote Malay kampongs, it is possible to find a small shop which stocks canned fish of several varieties, including sardines.

A great many more sardines have been exported from Malaya than have been imported (table 1), in spite of the absence of a domestic sardine canning industry,

Table 1 - Malayan Imports and Exports of Canned Sardines Herring and Pilchards, 1953-55

Year and Type of Product	Imports			Exports		
	Qty.	c.i.f. Value		Qty.	f.o.b. Value	
1955:	Long Tons	M$1,000	US$1,000	Long Tons	M$1,000	US$1,000
Sardines	714	866	286	1,170	1,316	434
Herring	236	312	103	11	18	6
Pilchards	3,229	3,559	1,174	124	141	46
Total	4,179	4,737	1,563	1,305	1,475	486
1954:						
Sardines	1,062	1,384	456	995	1,115	368
Herring	211	296	98	30	36	12
Pilchards	2,066	2,451	809	135	152	50
Total	3,339	4,131	1,363	1,160	1,303	430
1953:						
Sardines	1,027	1,300	429	1,307	1,585	523
Herring	328	471	156	51	69	23
Pilchards	2,321	2,797	923	87	103	34
Total	3,676	4,568	1,508	1,445	1,757	580

the United States Embassy at Singapore reports (dispatch dated August 17). Trade and government sources explain this by the fact that canned fish has a long "shelf-life: and that many of these exports (actually re-exports) have rested in warehouses for several years. They say, furthermore, that when reoccupying the country in 1945 the British brought in large stocks of canned fish for distribution to the starving populace and that many of these stocks are still in circulation. Singapore's economic prosperity to a considerable extent rests on its position as an entrepot, a position which requires local dealers to keep large inventories of those items in demand from the traditional entrepot outlets in Borneo, Indonesia, Thailand, and Burma. Exports of canned fish are actually re-exports to these surrounding territories.

Table 2 - Malayan Retail Prices and Estimated Percentage of Consumption by Size and Type of Can for Canned Sardines

Size and Type of Can	Estimated Consumption	Retail Price Per Can	
	Percent	M$	U.S.¢
1-lb. tall	45	0.55	18
1-lb. oval	40	0.55-0.75	18-25
8-oz. oval	7	0.35	12
$3\frac{1}{4}$-5 oz. flat	5	0.50-0.75	17-25
8 oz. flat	2	0.95	31
8 oz. tall	1	0.35	12
Total ...	100		

Note: Values converted at the rate of one Malayan Straits dollar equals US$0.33.

It is difficult to estimate consumption trends although local retailers believe the direction is steadily upward. If one judges in terms of similar consumer items, the annual increase should range between 5 and 10 percent, due both to the growing population and rising standard of living. Approximately 45 percent of the consumers prefer the 1-lb. tall and 40 percent the 1-lb. oval can of sardines, and 95 percent prefer sardines packed in tomato sauce. The tomato sauce is much preferred because with it can be mixed herbs and spices of the sort the various races in Malaya most enjoy.

At least 70 percent of sardine consumers belong to the low income group; 25 percent to the middle income group; and 5 percent to the high income group which confines its purchases mostly to brislings and sardines in the smaller size containers. The larger sizes are more popular with the lower income groups. The retail market price of the 1-lb. tall can of sardines is about 18 U. S. cents, and the price for the 1-lb. oval ranges from 18-25 cents (table 2).

Early in 1955 import controls on all types of canned fish of United States origin were lifted and U. S. dollar exchange has since been freely granted. There are no

import duties for canned fish brought into the free ports of Singapore and Penang. However, the Federation of Malaya imposes a 15 percent ad valorem duty on all such items except those from the Empire preference group, specifically South Africa whose level of trade with Malaya in canned fish is consequently very high. The United States, Japan, and Scandinavian countries have good shares, nevertheless, although they vary considerably from year to year.

The most common channel of distribution is from large import houses directly to the retailer, but sometimes through wholesalers. However, there are a great many medium-size food merchants who carry on extensive operations on both the retail side and in the entrepot trade and therefore do their own importing.

One precaution that must be observed closely is in connection with labeling requirements set by government health authorities. In one instance, the Singapore Government objected to labeling as "sardines" certain fish which were larger than normal sardines (young Clupea pilchardus).

The British armed forces in Malaya purchase considerable quantities of sardines for use as field rations. The present monthly requirement is roughly 800 cartons (100 5-oz. cans per carton). While the matter has not been thoroughly investigated, we understand that contracts are bid by local suppliers.

Mexico

SHRIMP FISHERY TRENDS, NOVEMBER 1956: The November 1956 shrimp catch by Mexican vessels was about normal for the east coast fleet, but the west coast catch was down from October. The strong northerly winds customary at this time of the year limited fishing on the East Coast to periods of good weather.

The West Coast shrimp catch picked up during the last four days of the month with the help of a good run of blue shrimp off the mouth of the Fuerte River in the northern part of Sinaloa. The weir shrimping season in southern Sinaloa and northern Nayarit, which started on September 1, was about over by the end of November. It was estimated that the catch by this type of gear would be only 20-25 percent of the 1955 season. Most of this production was either frozen or canned and practically none dried. As a rule 300-500 metric tons are dried annually for consumption in Mexico.

The shipyards at Mazatlan were busy during the month with 18 vessels under construction and three additional launched and fitting out. Ten of the new vessels on the ways are steel-hulled and are 55-65 feet in length.

Norway

FISHERIES TRENDS, SEPTEMBER 1956: Norway's 1956 cod fishing season which ended in August brought a catch of nearly 160,000 metric tons, or approximately 36,000 tons more than the previous year. The British market for fresh cod has been good, but stocks of frozen cod are increasing as this market has been less favorable.

Exports of stockfish during the first half of 1956 totaled 11,609 tons as compared with 7,298 tons the previous year, and exports of klipfish rose from 21,178 tons to 23,327 tons.

The tuna fisheries in 1956 were considered a complete failure; the catch by the end of July had only reached 900 tons as compared with 6,000 tons the previous year. By August 1, only 35 carloads of frozen tuna had been exported to Italy, as against 315 carloads in 1955.

The brisling (sprats) fisheries were also reported to have failed, and the brisling canning factories had to switch over to canning mackerel to avoid closing down entirely.

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HERRING FISHERY TRENDS, NOVEMBER 1956: The catch of herring by Norwegian fishermen from off Iceland as of November 15 amounted to 221,640 bbls. (value about US$4.5 million) as compared with 204,000 bbls. as of this date a year ago.

The catch of brisling and small sild herring continues to fall behind that of recent years, states a November 16 dispatch from the United States Embassy in Oslo. The pack of brisling herring totaled only 168,000 cases on October 13 as compared with 243,000 cases during the same period in 1955 and 417,000 cases for the corresponding period of 1954.

The small herring or sild fishery resulted in a pack of 247,000 cases or less than half the 579,000 cases packed by October 13 in 1955. The poor catch is reflected in the exports of brisling which total less than half the number of cases exported in the first ten months of 1955.

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MILD-CURED SALMON IMPORTS DECONTROLLED: The restrictions on the importation of mild-cured or salted salmon into Norway were reported lifted by the Norwegian delegate to the fall 1956 meetings held by member nations to the General Agreement on Tariffs and Trade at Geneva, according to a telegram received by the State Department from Geneva.

Peru

CANNED SARDINE MARKET: Peruvian production of canned sardines is of commercial importance and does not satisfy the consumer demand either in quantity or in quality, states an August 31 dispatch from the United States Embassy at Lima.

As no true sardines are found in Peruvian waters, the species canned as a substitute are small herring known locally as "Machetes" (Potamalosa notacanthoides) and "anchovetas" (Engraulis ringens). These fish are referred to as sardines. The bulk of the catch of anchovetas and machetes is used either as live bait or for fish meal. The canned pack during the canning season of September-April is estimated at 2,000 cases of 100 4-ounce cans. Peruvian sardines are packed exclusively in cottonseed oil and in 4-ounce flat cans. The number of sardines in each can varies from 4-6 due to the variable sizes of the fish caught.

The entire domestic pack is consumed locally and mainly by the middle and lower income groups. Although the pack is expected to increase gradually on account of the growing population of consuming centers, no special efforts are likely to be made by the industry in accomplishing a significant increase in the immediate future because of the market preference consumers have for the well-known imported brands.

Reliable trade sources estimate the total Peruvian annual consumption of sardines at almost 300 metric tons, of which the domestic production supplies only about 44 tons.

The present consumption trend for sardines is upward. It is believed that consumption of sardines will increase gradually in line with the growth of the population in consuming centers, principally in greater Lima and other important cities in the coastal zone. This growth in population is noticeable in foreign colonies established in Peru (such as the American and European), generally regarded as fish-minded people. This expansion of the foreign colonies is undoubtedly due to present favorable economic conditions in Peru which have attracted a considerable number of businessmen, engineers, and technicians from abroad.

Table 1 - Peru's Imports of Canned Sardines and Sardinelike Fish, 1952-55

Type of Pack	Quantity				Value				Value			
	1955	1954	1953	1952	1955	1954	1953	1952	1955	1954	1953	1952
	(Metric Tons)				(1,000 Soles)				(US$1,000)			
Sardines and substitutes packed in oil	314	168	216	272	3,293	1,709	1,904	2,437	173	90	100	128
Sardines and substitutes packed in tomato or other sauces	1	2	1	5	19	14	7	41	1	1	1/	2
Total	315	170	217	277	3,312	1,723	1,911	1,911	174	91	100	130

1/ Less than US$1,000.

Almost 99 percent of the sardines consumed in Peru are packed in the $3\frac{1}{4}$-5 oz. flat can. Sardines packed in olive oil account for almost 98 percent of total consumption; packs with cottonseed oil, tomato, and other sauces account for the remaining 2 percent. The percentage of sardines consumed by the high, middle, and low income groups is estimated at 65, 30, and 5 percent, respectively.

Retail market prices for the $3\frac{1}{4}$-5 oz. cans packed in olive oil or tomatoe sauce (imported) range from 3.20-4.50 soles (16-23 U. S. cents) a can, and the 4-oz. cans (domestic) in cottonseed oil from 2.40-2.60 soles (12-13 cents).

Imports (see table) of sardines from the United States are negligible. Importers and consumers regard sardines from Portugal, Morocco, and Spain to be of a superior quality as compared with those of the United States. The lack of aggressive advertising on the part of United States producers and exporters may also be regarded as an unfavorable factor.

Importation and distribution of canned sardines in Peru is done direct by leading foodstuffs importing firms who sell to retail merchants. Grocery stores are practically the only retail outlets for sardines.

Note: Soles converted at rate of 19 equal US$1.

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PERUVIAN-UNITED STATES WHALING COMPANY BUILDS PLANT: A joint Peruvian-United States whaling company is expected to complete the erection of a US$500,000 plant near the northern port of Paita, by January 1957. The capacity of the plant is reported to be about 3,000 tons of sperm oil and 2,000 tons of whale meal a year. Operations are scheduled to start about April 1957. The firm recently purchased three vessels (320 tons, 1,400 hp.) from Norwegians for about US$395,000, according to an October 31, 1956, dispatch from the United States Embassy in Lima.

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FIRST FISH TERMINAL BUILT: A new modern fish terminal for the Lima area was expected to be activated at the end of October 1956. The installations consist of six cold-storage and four freezing chambers plus an ice-making plant. The fish terminal, the first of its type, was built for a total cost of US$210,000, an October 31, 1956 dispatch from the United States Embassy in Lima states.

Poland

FIVE-YEAR PLAN FOR EXPANSION OF FISHING FLEETS: Poland's fish trawling industry opened the current season with an expanded program of operations. Last year's plan, according to a ministerial statement was completed on November 12, 1956, some 3 weeks ahead of schedule, with an increase of 13 percent over the previous year's catch of about 107,500 metric tons.

This is the first year of a new Five-Year Plan when big sums will be spent on the expansion of shipyards and the trawler industry. Originally the trawler fleet was to have increased by 19 vessels, a new base ship, and a number of cutters for salmon fishing. However, plans are being revised with a view to streamlining production and increasing the fleet.

Modernization of the vessels now in commission is being pushed ahead. The Fayderyk Chopin, the base ship, was overhauled last winter and equipped with a freezing plant. Plans have been prepared by the Fisheries Institute for the transitional period when vessels not always well adapted for distant-water operations will be in use as well as for the later period when the fishing fleet will meet all the requirements of modern fishing techniques, labor conditions, and safety at work. Polish fishing fleets may be seen as far as Greenland and the Newfoundland Banks.

Another series of improved slightly bigger trawlers will be commissioned, and the shipyards will continue deliveries of improved drifters. Base ships will continue to be delivered and by the end of the Five-Year Plan in 1960 Poland will be building trawlers of about 1,000 tons equipped with processing plants. Vessels of 9,600 tons are also to be built, each equipped with a helicopter, to be used in fishing operations. During the next two years Gdansk shipyards, Poland's biggest, will continue to build ships of the present type but will at the same time adapt themselves for the construction of new-type trawlers, several scores of which will be built during the next five years. The trawler B-14 which is now being produced is of 500 tons dead weight and has a range of 7,000 miles; it is equipped with all modern machinery and a fish-meal processing plant. An improved version of the trawler, the B-15, is to go into production in 1958 in the Paris Commune Shipyards in Gdynia. It is a very highly-mechanized vessel equipped with the necessary processing plant. The yards are also to build a number of Diesel and motor trawlers. An alternative plan for the yards submitted to the Ministry of Shipping proposes an additional construction of 850-ton super-motor trawlers of three types; one type of supertrawler with herring-salting installations; a supertrawler equipped with freezing plant; and one type with a white-fish processing plant.

The production of nets is to be increased and 99 percent of the demand will be met from home production. This is due to the opening of a new factory in Swinoujscie and factories in Bydgoszcz and Darlown. Previously most nets were imported.

The catch of sea-caught fish will increase by 50-55 percent during the Five-Year Plan so that by 1960 catches will amount to about 12-13 pounds per capita, the amount of herring being over $5\frac{1}{2}$ pounds. This will mean an increase of more than 3.3 pounds of fish per capita as compared with 1955. Production of canned fish will be nearly doubled. The increase will result primarily from further development of

distant-water fishing which should more than double its catches during the next 5 years. In the first 2 or 3 years there will be further intensive explorations of the North Sea fishing grounds. By 1960, when the fish-processing trawlers have been handed over for use, Polish fishing vessels will go to the fishing grounds in the Barents Sea and the waters off Iceland, Greenland, and Newfoundland. The country will be supplied with large amounts of fish in the form of frozen fillets. Baltic catches will grow by about 20 percent during the next 5 years (World Fishing, October 1956).

Portugal

Portuguese Canned Fish Pack, January-June 1956

Product	Net Weight	Canners' Value
	Metric Tons	US$ 1,000
In Olive Oil:		
Sardines	1,204	731
Sardinelike fish	1,666	1,515
Tuna	764	635
Other species (incl. shellfish)	165	113
In Brine:		
Sardinelike fish	1,935	562
Other species	75	17
Total	5,809	3,573

CANNED FISH PACK, JANUARY-JUNE 1956: The Portuguese pack of canned sardines in oil of 539 metric tons during June 1956 failed to improve over the light pack of 625 tons the previous month and was about one-third of the 1,831 cases packed in June 1955. The pack of all canned fish in June 1956 amounted to 2,811 tons, the October 1956 Conservas de Peixe reports.

The total pack of canned fish for January-June 1956 amounted to 5,809 cases as compared with 9,897 cases in the similar period of 1955. Canned sardines in oil (1,204 cases) accounted for 21 percent of the January-June 1956 total pack, much lower than the pack of 5,779 cases for the same period in 1955.

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1956 SALTED-COD LANDINGS FROM GRAND BANKS: The Portuguese fleet of 50 line trawlers (schooners) and 22 otter trawlers was estimated to have landed 72,850 metric tons of wet-salted cod during the 1956/57 season on the Grand Banks. The last of the fleet was scheduled to return to Portugal before Christmas 1956, states a November 29, 1956, dispatch from the United States Embassy in Lisbon.

The 1956/57 salted-cod landings, if borne out by final totals, were expected to exceed those of 1955/56 by 4,313 tons. In terms of dry-salted cod, the 1956/57 landings were expected to yield 51,000 tons (value US$18.3 million) as compared with 48,002 tons in 1955/56 (valued at US$17.3 million). The increased catch in 1956/57 was attributed to a larger fleet and improved techniques.

Note: Values converted at the rate of 28.75 escudos equal US$1.

Spain

FOUR LARGE TUNA FISHING VESSELS UNDER CONSTRUCTION: The Spaniards are building four large clipper-type tuna-fishing vessels, according to a report in the French periodical Le Marin (November 9, 1956). The vessels were ordered built by an important Spanish ship chandler to be used in the tuna fishery off the Canary and Azores Islands.

It is expected that the tuna caught by these vessels will be frozen and shipped to Italian canneries, according to Italian newspaper reports.

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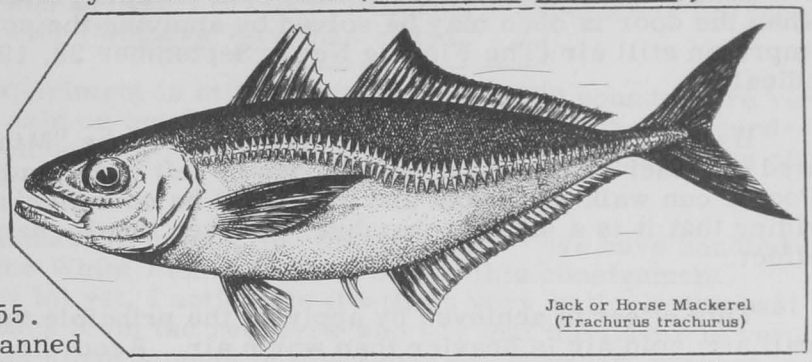
VIGO FISHERIES TRENDS, OCTOBER 1956: Fishing: During the month of October about 15.3 million pounds of fish were landed and sold over the Vigo fish exchange. This was an increase of about one percent over September 1956 landings, but lower by about 10 percent than the same month in 1955. The leading variety sold over the fish exchange in October was the needlefish (Ramphistoma belune) with 3.3 million pounds; followed by horse mackerel (Trachurus trachurus), 2.8 million pounds; and sardine (Sardina pilchardus), 2.4 million pounds. Catches of albacore (Germo alalunga) were close to 330,000 pounds.



Jack or Horse Mackerel
(Trachurus trachurus)

Fish Canning: The fish canneries in the Vigo area purchased 4.9 million pounds in September 1956 and 5.9 million pounds in October 1955. The principal fish products canned were needlefish and sardines. Some interest was shown in clam canning. The pack of canned clams is estimated to be about 50 percent above that for recent years. Small sardines were abundant near the river mouths and this was considered to be an encouraging sign for the return of this species in volume to Spanish waters.

The outlook for supplies of tin plate for cans was brighter at the end of the month and the Spanish Government continued to make allotments of olive oil. The price of olive oil in October was about 22-23 U. S. cents a pound, states a November 10 dispatch from the United States Consul in Vigo.

Sweden

COMMITTEE TO IMPROVE QUALITY OF FISH FORMED: A joint committee, called the Quality Committee and made up of representatives from the fishing industry, the fish processing industry, the association of fish wholesale dealers, the fish dealers' association, and Goteborg fish retailers, has been established on the initiative of the above-named groups and the Swedish governmental agricultural board. The function of the committee is to investigate possibilities of improving the quality of west coast fish and expediting transportation and deliveries of fish to consumers and thereby, it is hoped, increasing the consumption of fish.

At the first meeting of the committee in Goteborg on November 9, 1956, the handling of the catches at sea was discussed, especially with reference to more effective cleaning and sorting. The committee recommended that all big fish should be cut immediately at the throat when brought aboard in order to drain the blood. This practice is said to be followed by Norwegian fishermen and is reported to improve the quality of the fish. It was also found desirable that the fish be sorted on the boats, and that, for instance, there should be three sizes for plaice instead of two as at present.

Fish containers were also discussed and a new type of packing box made of glass fibers and plastic was demonstrated. While much more expensive than the conventional wood box, this new type is said to have the advantage of repeated use with no disagreeable odor.

The fish auctions which are held at the harbor in Goteborg were also discussed, especially with a view to having stricter quality checks, states a November 13 dispatch from the United States Consul at Goteborg.

United Kingdom

DEVICE TO PREVENT LOSS OF COLD FROM OPEN COLD STORAGE DOORS: The everyday problem of preventing cold escaping from a refrigerated chamber when the door is open may be solved by applying the principal that flowing air will imprison still air (The Fishing News, September 28, 1956, a British fisheries periodical).

By the use of this particular idea, namely the "Miniveil," the door of a refrigerated chamber registering -20° F. can be left open leading into a room at 50° F. People can walk in and out and there will be no material loss of temperature providing that it is a sizable chamber, but even small chambers can use them to great effect.

This effect is achieved by applying the principle that flowing air will imprison still air; cold air is heavier than warm air. Accordingly, when the refrigerator door opens, it naturally "falls out" and frequently can be seen in the form of vapor on the floor as it strikes the warm air of the outside room. As that cold air falls it provides space for warm air to enter at the top of the door and thus leads to an admixture of air and loss of temperature.

The "Miniveil" checks that by simply blowing a fairly strong "veil" of air from the top of the door to the floor. That veil or "waterfall" of moving air is sufficient in practice to keep the cold air from moving out.

As the refrigerated door opens it automatically switiches on a motor in the apparatus overhead. A fan starts up and drives the ordinary air down through the elongated aperture over the door right to the floor.

This apparatus costs about US$560 and solves many problems. It saves the cost of double doors. It saves even rubber doors which are apt to get torn by trucks and trolleys. It gives free passage through the door. It saves time and gives speedy handling. It does away with airlocks. It reduces the risk of accidents. It makes mechanical handling particularly simple and safe.

At one of the big ice cream factories in London where the huge turnover requires incessant transfer of goods from the refrigerated rooms, the doors are left open from early morning to closing time in the evening and there is no measurable rise in temperature.

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FACTORYSHIP "FAIRTRY" COMPLETES TENTH TRIP: The British factoryship trawler Fairtry was scheduled to arrive at her home port of Immingham on November 4, 1956, from a three-month trip to the Grand Banks.

This trip was estimated to consist of 400 tons of fillets (mostly cod), 60 tons of whole fish, 150 tons of fish meal, and about 3,000 gallons of fish oil, according to The Fishing News of November 2, 1956.

The Fairtry landed its first trip (also from the Grand Banks) in Immingham on July 28, 1954.

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FIRST ICELAND ICED-FISH TRIP SINCE 1952 LANDED AT GRIMSBY: The first Icelandic iced fish to reach the British market via direct landings from fishing vessels through established channels since 1952 was landed at Grimsby by the Icelandic trawler Ingolfur Arnanson on November 27, 1956. The vessel arrived when the market was short of supplies and good prices were obtained, according to a November 29 dispatch from the United States Embassy in London.

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FREEZING FISH-AT-SEA EXPERIMENT ENDED: The fishing phase of the British White Fish Authority and British Trawlers' Federation experiment for freezing fish at sea aboard the trawler Northern Wave has ended.

Fish caught during the experiment is still being sold and 4,200 pounds were removed from cold storage for sale on the Grimsby market in mid-October, according to The Fishing News of October 16, 1956. The lot consisted of 3,500 pounds of cod and 700 pounds of haddock.

A representative of the market firm handling the fish said: "We have handled quite a lot of frozen fish for the White Fish Authority before this consignment. Though I have not sold the new lot yet, I anticipate it will go very well. In the past I have had excellent reports back from the retailers who say that the flavor is very good indeed. There has been a slight amount of discoloration, however, but that is all we can say against it. We have sold it through our own shops to canteens and cafes and reports have been uniformly good."

An official of the White Fish Authority states: "We have stocks of the fish frozen at sea still on hand, and we are releasing them gradually on the open market. A full report of the whole experiment will be issued eventually, but at the moment the fishing side has ended."

One of the biggest problems as far as Grimsby is concerned has been the lack of plants where the fish could be thawed out properly. Consequently a proportion of it was placed on the market in its frozen form and buyers had to thaw it themselves.

On the whole inland traders have given very favorable reports of the quality of the fish.

Officials stress that it must be compared with the fish which is caught and iced first on a normal voyage.

It is not intended to compare with prime-quality deep-water fish, and the experiment has been aimed at keeping the first part of the catch in good condition.

Northern Wave cod caught on the Bear Island and Iceland grounds in May and June was also sold in Hull in mid-October and met a ready demand on a day when landings were light. The frozen fish sold at prices ranging from 8.6-9.1 U. S. cents a pound, very near to prices paid for direct landings from trawlers.