



International

INTERNATIONAL NORTH PACIFIC FISHERIES COMMISSION

MEETING HELD IN TOKYO MARCH 1957: Important fisheries meetings in Tokyo during March 1957 were attended by a number of Canadian, American, and Japanese delegates. The meetings were held by the International North Pacific Fisheries Commission, which was formed by a tripartite Treaty between Canada, Japan, and the United States in 1953 for the conservation of stocks of fish on the high seas of the North Pacific Ocean. The treaty covers an ocean area of 32 million square miles. Approximately one-third of the world's supply of fish is taken in the area by the nations signatory to the tripartite Treaty and other bordering nations, including China and the U.S.S.R.

During 1955 and 1956 the Commission has undertaken a research program of record size in the area extending northward from the latitude of San Francisco to near the Bering Strait at the entrance to the Arctic Ocean and across to the Asiatic shores. Twenty ocean-going research vessels occupied stations throughout this vast and stormy expanse in 1956.

Principle subject of research at present is a determination of whether or not salmon from Asian streams mingle in the sea with salmon from the streams of North America. If the Commission finds that salmon from the two continents mix on common feeding grounds in mid-ocean, it must draw dividing lines based on scientific research which will most equitably divide the stocks.

The Tokyo meetings were divided into two series. During the week beginning on March 11 representatives of the three countries discussed the status of the salmon, herring, and halibut fisheries along the Pacific coast of Alaska, British Columbia, and the United States. Japan has agreed in the Treaty to abstain from fishing these stocks, on the condition that the United States and Canada maintain a maximum sustainable annual harvest from them, coupled with a full research program and adequate enforcement of conservation measures. The committee studied reports dealing with this complex and important question and advised the Commission on the need for further studies. Beginning in 1958 the Commission must decide annually if stocks of fish protected under the abstention clause of the Treaty continue to qualify, or if the abstention should be lifted.

During the week of March 18, the Commission's Committee on Biology and Research met to plan and coordinate details of the 1957 research program. Oceanographic research vessels connected with this program have departed for North Pacific waters. They will be followed by vessels studying distribution of salmon throughout their range and later by other vessels engaged in mid-ocean tagging of salmon, for later recovery in their home areas.

NORTH SEA FISHING CONVENTION

SWEDISH ASSOCIATION COMMENTS: The editor of The Swedish West Coast Fisherman, the organ of the Swedish West Coast Fishermen's Central Association, writing in the association's journal, states that at the time the North Sea

Convention became effective on April 5, 1954, it was considered a good method to protect the growth of fish in the North Sea and other affected waters. Several other plans, he says, had been tested and abandoned before this convention, prescribing minimum sizes of fish and meshes, was agreed upon. A summary of the article applied by the United States Consulate at Goteborg in a January 29 dispatch follows:

It was soon found that the convention "had many and great weaknesses." The size of mesh suitable for the catching--and protection--of cod, haddock, coalfish, plaice, etc., was not suitable for catching herring, mackerel, prawns, crayfish, etc. For the latter species exceptions had to be made with regard to the size of the mesh, and these exceptions made it possible to continue catching small fish of several categories. All of these small fish, however, could not be used and sold, but they were caught and killed. The result has been that "today all countries concerned are agreed that the purpose of the convention has not been fulfilled."

The Permanent Commission for the North Sea Convention has therefore taken up for consideration certain amendments or additions, and in September 1955 a special committee was appointed to examine the question scientifically.

In order to facilitate the work, the member countries were requested to answer certain questions. One of these was whether any additional types of fish should be added to the list of protected fish or whether any kind of fish now protected should be removed from the list.

Replies have been received from all participating countries with the exception of Iceland. It was found that most of the countries concerned, including Sweden, Norway, and Great Britain, did not want any changes at the present time in the list of protected and unprotected fish. France considered that whiting should be removed from the list of protected fish because "there is no evidence of excess fishing of this kind." Denmark suggested that both whiting and sand dab be taken off the list "as it is not known that minimum sizes for these kinds of fish are suitable for fishing on the whole." It was also pointed out, that small whiting are valuable for fishing in some countries and that the sand dab is a serious food competitor of some of the more valuable fish types, for example plaice. The Netherlands, on the other hand takes a long-range view and considers that fish protection should be increased because many species of fish that have no commercial value at present may be of value in the future.

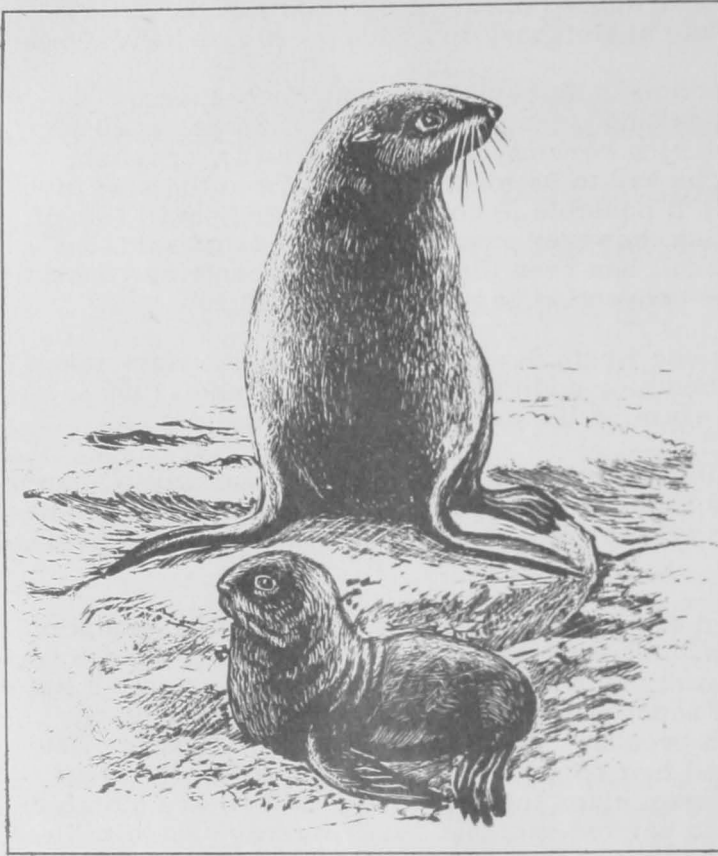
Swedish fishermen are probably generally of the opinion that whiting in particular needs all the protection it can get if it is not to be exterminated. There has been a marked reduction of whiting catches in the North Sea as well as the Skagerrack and the Kattegat during the last few years, and at present whiting is very scarce.

According to the editor, the executives of the Swedish West Coast Fishermen's Central Association met some time ago and unanimously recommended that at the pending meeting of the Permanent Commission the Swedish delegates should re-emphasize emphatically any weakening of the protection afforded whiting and sand dab.

NORTH PACIFIC FUR SEAL COMMISSION

FUR SEAL CONSERVATION CONVENTION SIGNED: The North Pacific Fur Seal Conference came to a successful close on February 9 in Washington with the signing of the Interim Convention for the Conservation of North Pacific Fur Seal Stocks. The Convention is the result of extensive negotiations by delegations of Canada, Japan, the Union of Soviet Socialist Republics, and the United States of America, which began discussions on November 28, 1955.

There are about 1,600,000 fur seals in the North Pacific Ocean. Indiscriminate killing of seals would soon reduce their numbers sharply and perhaps jeopardize their existence. This was demonstrated in the late nineteenth century when the herds



whose numbers in the 1860's had reached almost 2,000,000, fell about 200,000 head in 1911 due to indiscriminate slaughter. Under the four-power Fur Seal Convention of 1911, Canada, Japan, Russia, and the United States prohibited their nationals from hunting seals at sea. As a result, the populations rose to 1,600,000 by 1941 when the 1911 Convention was terminated. Meanwhile, during this 30-year period over a million skins were harvested on the breeding islands by the Governments having control of them. The present convention will re-institute multilateral conservation by the four North Pacific powers.

The fur seal spends nine months each year at sea, three months on land. Migrating each winter to waters as far south as the latitude of San Francisco and Tokyo, the herds beginning in June return to three island groups in the far north--the Pribilof Islands off Alaska and the Commander Islands and Robben Island off the

Asian Coast. Here they remain for three months on the shingle beaches while the pups are born and are prepared for life at sea, even having to learn to swim during this time. In September the seals begin to leave for their nine-month journey southward.

The seal is a polygamous creature. One bull may have a harem of as many as 50 females. For the needs of the fur industry the practice has, therefore, been to take the surplus males. Usually three-year old males are taken, the peltage being then at its prime. The killing is done on the Asian islands by the Government of the U.S.S.R. and on the Pribilof Islands by the United States Government.

The Convention provides among other things for:

1. the establishment of a North Pacific Fur Seal Commission of four members, one from each of the Signatories;
2. a six-year cooperative research program;
3. the prohibition of pelagic sealing (seal hunting at sea), except to a specified extent for research purposes;
4. boarding and search of vessels at sea in suspicious circumstances and arrest of vessels and crews upon reasonable belief of seal hunting with trial in the country of the flag of the vessel.
5. the enactment and enforcement by the Parties of such legislation and the application of such measures as may be necessary to guarantee the observance of the Convention; and

6. a sharing of the land kill so that Canada and Japan receive each year from the U.S.S.R. and the U.S.A. 15 percent of the seal-skins taken on the islands by the latter two Governments.

The Convention will enter into effect upon the deposit of ratifications in Washington by the four Signatories. It will continue in effect for six years although in certain circumstances the term may vary from six years. The Parties agree to hold a meeting toward the close of the research program to determine what more permanent arrangements may be necessary for the conservation of the herds.

The text of the convention follows:

INTERIM CONVENTION ON CONSERVATION OF NORTH PACIFIC FUR SEALS

The Governments of Canada, Japan, the Union of Soviet Socialist Republics, and the United States of America,

Desiring to take effective measures towards achieving the maximum sustainable productivity of the fur seal resources of the North Pacific Ocean so that the fur seal populations can be brought to and maintained at the levels which will provide the greatest harvest year after year, with due regard to their relation to the productivity of other living marine resources of the area,

Recognizing that in order to determine such measures it is necessary to conduct adequate scientific research on the said resources, and

Desiring to provide for international cooperation in achieving these objectives,

Agree as follows:

ARTICLE I

1. The term "pelagic sealing" is hereby defined for the purposes of this Convention as meaning the killing, taking, or hunting in any manner whatsoever of fur seals at sea.

2. The words "each year", "annual" and "annually" as used hereinafter refer to Convention year, that is, the year beginning on the date of entry into force of the Convention.

3. Nothing in this Convention shall be deemed to affect in any way the position of the Parties in regard to the limits of territorial waters or to the jurisdiction over fisheries.

ARTICLE II

1. In order to realize the objectives of this Convention, the Parties agree to coordinate necessary scientific research programs and to cooperate in investigating the fur seal resources of the North Pacific Ocean to determine:

(a) what measures may be necessary to make possible the maximum sustainable productivity of the fur seal resources so that the fur seal populations can be brought to and maintained at the levels which will provide the greatest harvest year after year; and

(b) what the relationship is between fur seals and other living marine resources and whether fur seals have detrimental effects on other living marine resources substantially exploited by any of the Parties and, if so, to what extent.

2. The research referred to in the preceding paragraph shall include studies of the following subjects:

(a) size of each fur seal herd and its age and sex composition;

(b) natural mortality of the different age groups and recruitment of young to each age or size class at present and subsequent population levels;

(c) with regard to each of the herds, the effect upon the magnitude of recruitment of variations in the size and the age and sex composition of the annual kill;

(d) migration routes of fur seals and their wintering areas;

(e) numbers of seals from each herd found on the migration routes and in wintering areas and their ages and sexes;

(f) extent to which the food habits of fur seals affect commercial fish catches and the damage fur seals inflict on fishing gear; and

(g) other subjects involved in achieving the objectives of the Convention, as determined by the Commission established under Article V, paragraph 1.

3. In furtherance of the research referred to in this Article, each of the Parties agrees to carry out, each year after the entry into force of the Convention, the programs set forth in the Schedule annexed to the Convention with any modifications thereof made pursuant to Article V, paragraph 3. The said Schedule, together with any such modifications, shall be considered an integral part of this Convention.

4. Each Party agrees to provide the Commission annually with information on:

(a) number of black pups tagged for each breeding area;

(b) number of fur seals, by sex and estimated age, taken at sea and on each breeding area; and

(c) tagged seals recovered on land and at sea; and, so far as is practicable, other information pertinent to scientific research which the Commission may request.

5. The Parties further agree to provide for the exchange of scientific personnel; each such exchange shall be subject to mutual consent of the Parties directly concerned.

6. The Parties agree to use for the scientific pelagic research provided for in this Article only government-owned or government-chartered vessels operating under strict control of their respective authorities. Each Party shall communicate to the other Parties the names and descriptions of vessels which are to be used for pelagic research.

ARTICLE III

In order to realize the purposes of the Convention, including the carrying out of the coordinated and cooperative research, each Party agrees to prohibit pelagic sealing, except as provided in Article II, paragraph 3 and the Schedule, in the Pacific Ocean north of the 30th parallel

of north latitude including the seas of Bering, Okhotsk, and Japan by any person or vessel subject to its jurisdiction.

ARTICLE IV

1. Each Party shall bear the expense of its own research. Title to sealskins taken during the research shall vest in the Party conducting such research.

2. If the total number of seals of the Commander Islands breeding grounds decreases and falls below 50,000 head, according to data in official records, then commercial killing of seals and apportionment of skins may be suspended by the Union of Soviet Socialist Republics until the number of seals exceeds 50,000 head. This provision also applies to the fur seal herd of Robben Island, if the population of that herd becomes less than 50,000 head.

3. The Government of the Union of Soviet Socialist Republics upon suspending such sealing shall so inform the other Parties. In this case the Commission shall determine whether or not to reduce the level of or to suspend completely the pelagic sealing for scientific purposes in the Western Pacific Ocean during the period of the said suspension.

4. The Commission may, subsequent to the second year of operation of the Convention, modify the floor figure set forth in paragraph 2 of this Article in accordance with its findings based upon scientific data received by it; and if any such modifications are made, paragraph 2 of this Article shall be considered amended accordingly. The Commission shall notify each Party of every such amendment and of the effective date thereof.

ARTICLE V

1. The Parties agree to establish the North Pacific Fur Seal Commission to be composed of one member from each Party.

2. The duties of the Commission shall be to:

(a) formulate and coordinate research programs designed to achieve the objectives set forth in Article II, paragraph 1;

(b) recommend these coordinated research programs to the respective Parties for implementation;

(c) study the data obtained from the implementation of such coordinated research programs;

(d) recommend appropriate measures to the Parties on the basis of the findings obtained from the implementation of such coordinated research programs, including measures regarding the size and the sex and age composition of the seasonal commercial kill from a herd; and

(e) recommend to the Parties at the end of the fifth year after entry into force of this Convention and, if the Convention is continued under the provisions of Article XIII, paragraph 4, at a later year, the methods of sealing best suited to achieve the objectives of this Convention; the above-mentioned later year shall be fixed by the Parties at the meeting early in the sixth year provided for in Article XI.

ARTICLE VI

In order to implement the provisions of Article III, the Parties agree as follows:

1. When a duly authorized official of any of the Parties has reasonable cause to believe that any vessel outfitted for the harvesting of living marine resources and subject to the jurisdiction of any of the Parties is offending against the prohibition of pelagic sealing as provided for by Article III, he may, except within the

territorial waters of another State, board and search such vessel. Such official shall carry a special certificate issued by the competent authorities of his Government and drawn up in the English, Japanese, and Russian languages which shall be exhibited to the master of the vessel upon request.

2. When the official after searching a vessel continues to have reasonable cause to believe that the vessel or any person on board thereof is offending against the prohibition, he may seize or arrest such vessel or person. In that case, the Party to which the official belongs shall as soon as possible notify the Party having jurisdiction over the vessel or person of such arrest or seizure and shall deliver the vessel or person as promptly as practicable to the authorized officials of the Party having jurisdiction over the vessel or person at a place to be agreed upon by both Parties; provided, however, that when the Party receiving notification cannot immediately accept delivery of the vessel or person, the Party which gives such notification may, upon request of the other Party, keep the vessel or person under surveillance within its own territory, under the conditions agreed upon by both Parties.

3. The authorities of the Party to which such person or vessel belongs alone shall have jurisdiction to try any case arising under Article III and this Article and to impose penalties in connection therewith.

4. The witnesses or their testimony and other proofs necessary to establish the offense, so far as they are under the control of any of the Parties, shall be furnished with all reasonable promptness to the authorities of the Party having jurisdiction to try the case.

5. Sealskins discovered on seized vessels shall be subject to confiscation on the decision of the court or other authorities of the Party under whose jurisdiction the trial of a case takes place.

6. Full details of punitive measures applied to offenders against the prohibition shall be communicated to the other Parties not later than three months after the application of the penalty.

ARTICLE VII

The provisions of this Convention shall not apply to Indians, Ainos, Aleuts, or Eskimos dwelling on the coast of the waters mentioned in Article III, who carry on pelagic sealing in canoes not transported by or used in connection with other vessels, and propelled entirely by oars, paddles, or sails, and manned by not more than five persons each, in the way hitherto practiced and without the use of firearms; provided that such hunters are not in the employment of other persons or under contract to deliver the skins to any person.

ARTICLE VIII

1. Each Party agrees that no person or vessel shall be permitted to use any of its ports or harbors or any part of its territory for any purpose designed to violate the prohibition set forth in Article III.

2. Each Party also agrees to prohibit the importation and delivery into and the traffic within its territories of skins of fur seals taken in the area of the North Pacific Ocean mentioned in Article III, except only those taken by the Union of Soviet Socialist Republics or the United States of America on rookeries, those taken at sea for research purposes in accordance with the Schedule, those taken under the provisions of Article VII, those confiscated under the provisions of Article VI, paragraph 5, and those inadvertently captured which are taken possession of by a Party; provided, however, that all such excepted skins shall be officially marked and duly certified by the authorities of the Party concerned.

ARTICLE IX

1. The respective Parties agree that, of the total number of sealskins taken commercially each season on land, there shall at the end of the season be delivered a percentage of the gross in number and value thereof as follows:

By the Union of Soviet

Socialist Republics	{to Canada . . . 15 per cent
	{to Japan . . . 15 per cent

By the United States of

America	{to Canada . . . 15 per cent
	{to Japan . . . 15 per cent

2. Each Party agrees to deliver such sealskins to an authorized agent of the recipient Party at the place of taking, or at some other place mutually agreed upon by such Parties.

3. In order more equitably to divide the direct and indirect costs of pelagic research in the Western Pacific Ocean, it is agreed:

(a) that in any year in which commercial killing is carried out for both the Commander and Robben Islands herds and pelagic research in that area is carried on at a level of 2,000 or more seals:

(1) Canada and Japan will forego the delivery of the sealskins by the Union of Soviet Socialist Republics as set forth in paragraph 1 of this Article; and

(2) the United States of America will increase its delivery to Canada and Japan as set forth in paragraph 1 of this Article by a total of 375 sealskins to each of these Parties;

(b) that in any year in which commercial killing is carried out for one only of the Commander or Robben Islands herds and pelagic research in that area is carried on at a level of 1,000 or more seals:

(1) Canada and Japan will forego the delivery of the sealskins by the Union of Soviet Socialist Republics as set forth in paragraph 1 of this Article; and

(2) the United States of America will increase its delivery to Canada and Japan as set forth in paragraph 1 of this Article by a total of 188 sealskins to each of these Parties.

ARTICLE X

1. Each Party agrees to enact and enforce such legislation as may be necessary to guarantee the observance of this Convention and to make effective its provisions with appropriate penalties for violation thereof.

2. The Parties further agree to cooperate with each other in taking such measures as may be appropriate to carry out the purposes of this Convention, including the prohibition of pelagic sealing as provided for by Article III.

3. The Commission may, subsequent to the first year of operation of the Convention, modify in accordance with its scientific findings the research programs set forth in the Schedule and, if any such modifications are made, the Schedule shall be considered amended accordingly. The Commission shall notify each Party of every such amendment and of the effective date thereof.

4. Each Party shall have one vote. Decisions and recommendations shall be made by unanimous vote. With respect to any recommendations regarding the size and the sex and age composition of the seasonal commercial kill from a herd, only those Parties sharing in the sealskins from that herd under the provisions of Article IX, paragraph 1 shall vote.

5. The Commission shall elect from its members a Chairman and other necessary officials and shall adopt rules of procedure for the conduct of its work.

6. The Commission shall hold an annual meeting at such time and place as it may decide. Additional meetings shall be held when requested by two or more members of the Commission. The time and place of the first meeting shall be determined by agreement among the Parties.

7. The expenses of each member of the Commission shall be paid by his own Government. Such joint expenses as may be incurred by the Commission shall be defrayed by the Parties by equal contributions. Each Party shall also contribute to the Commission annually an amount equivalent to the value of the sealskins it confiscates under the provisions of Article VI, paragraph 5.

8. The Commission shall submit an annual report of its activities to the Parties.

9. The Commission may from time to time make recommendations to the Parties on any matter which relates to the fur seal resources or to the administration of the Commission.

ARTICLE XI

The Parties agree to meet early in the sixth year of this Convention and, if the Convention is continued under the provisions of Article XIII, paragraph 4, to meet again at a later year, to consider the recommendations of the Commission made in accordance with Article V, paragraph 2 (e) and to determine what further agreements may be desirable in order to achieve the maximum sustainable productivity of the North Pacific fur seal herds. The above-mentioned later year shall be fixed by the Parties at the meeting early in the sixth year.

ARTICLE XII

Should any Party consider that the obligations of Article II, paragraphs 3, 4, or 5 or any other obligation undertaken by the Parties is not being carried out and notify the other Parties to that effect, all the Parties shall, within three months of the receipt of such notification, meet to consult together on the need for and nature of remedial measures. In the event that such consultation shall not lead to agreement as to the need for and nature of remedial measures, any Party may give written notice to the other Parties of intention to terminate the Convention and, notwithstanding the provisions of Article XIII, paragraph 4, the Convention shall thereupon terminate as to all the Parties nine months from the date of such notice.

ARTICLE XIII

1. This Convention shall be ratified and the instruments of ratification deposited with the Government of the United States of America as soon as practicable.

2. The Government of the United States of America shall notify the other signatory Governments of ratifications deposited.

3. This Convention shall enter into force on the date of the deposit of the fourth instrument of ratification, and upon such entry into force Article IX, paragraphs 1 and 2, shall be deemed to have been operative from June 1, 1956, provided that the Parties shall have, from the date of signing, maintained under their internal law the prohibition and effective prevention of pelagic sealing by all persons and vessels subject to their respective jurisdictions.

4. The present Convention shall continue in force for six years and thereafter until the entry into force of a new or revised fur seal convention between the Parties, or until the expiration of one year after such period of six years, whichever may be the earlier; provided, however, that it may continue in force for a further period if the Parties so decide at the meeting early in the sixth year provided for in Article XI.

5. The original of this Convention shall be deposited with the Government of the United States of America, which shall communicate certified copies thereof to each of the Governments signatory to the Convention.

IN WITNESS WHEREOF the undersigned, being duly authorized by their respective Governments, have signed this Convention.

DONE in Washington this ninth day of February 1957, in the English, Japanese, and Russian languages, each text equally authentic.

For the Government of Canada :

A. D. P. HEENEY
G. R. CLARK

For the Government of Japan :

MASAYUKI TANI

For the Government of the Union of Soviet Socialist Republics :

G. ZARUBIN

For the Government of the United States of America :

WM. C. HEERINGTON
ARNIE J. SUOMELA

SCHEDULE

1. The United States of America each year during the first four years shall tag 50,000 black pups on the Pribilof Islands.

2. The Union of Soviet Socialist Republics each year during the first four years shall tag 25 per cent of the black pups on the Commander Islands and 25 per cent of the black pups on Robben Island.

3. In the event that pelagic sealing should be suspended for one or more years under the provisions of Article IV, paragraph 3, the tagging of black pups shall continue at the mentioned rates for a comparable number of years.

4. The United States of America each year shall take at sea for research purposes in the Eastern Pacific Ocean between 1,250 and 1,750 seals.

5. Canada each year shall take at sea for research purposes in the Eastern Pacific Ocean between 500 and 750 seals.

6. Japan shall take at sea in the Western Pacific Ocean :

(a) annually in the first and second years of pelagic research between 2,750 and 3,250 seals ;

(b) annually during the remaining four years of pelagic research between 1,400 and 1,600 seals.

7. The Union of Soviet Socialist Republics shall take at sea in the Western Pacific Ocean :

(a) annually in the first and second years of pelagic research between 750 and 1,250 seals ;

(b) annually during the remaining four years of pelagic research between 400 and 600 seals.

TRADE AGREEMENTS

AUSTRALIA AND JAPAN SIGN TRADE AGREEMENT WHICH INCLUDES CAN-
NED FISH: A trade agreement between Australia and Japan was signed early in February 1957, states a February 27, 1957, dispatch from the United States Embassy in London. The agreement will run for five years from November 9, 1956. Among the commodities for which quotas were increased is canned salmon to be imported by Australia from Japan. It was also reported that the new agreement provided for substantial exports from Japan to Australia of canned tuna.

UNITED NATIONS

EXPERTS MEET TO PREPARE FOR CONFERENCE ON LAW OF THE SEA: A group of 10 experts appointed to advise on the preparation of an international conference on the law of the sea completed on March 6 its first series of meetings with the United Nations Secretariat, held since February 25. A second series will be held at the beginning of October 1957.

The conference will be held in March and April 1958 in accordance with a resolution adopted by the General Assembly at its current session. It will examine the law of the sea on the basis of draft articles adopted by the United Nations International Law Commission at its eighth session, and it will embody the results of its work in one or more international conventions or other appropriate instruments. The conference will also study the question of free access of landlocked countries to the sea.

The experts discussed the draft agenda and the draft rules of procedure of the conference, plans for the organization of its work, measures to invite governments to make further provisional comments on the International Law Commission's report and related matters, and the preparation of working documents of a legal, technical, scientific, or economic nature in order to facilitate the work of the conference.



Argentine Republic

WHALING FIRM CEASES OPERATIONS: The only Antarctic whaling firm operated by Argentine interests was expected to go out of business. The Argentine firm will terminate its lease on the factory site (owned by Great Britain) on South Georgia Island. The installations will be sold or abandoned. The President of the Argentine company reports that the company could not operate at a profit due to exchange difficulties (The Fishing News, January 4, 1957).



Austria

CANNED MACKEREL MARKET: The quantity of canned mackerel consumed in Austria is equal to the quantity imported, since no domestic production exists, reports a dispatch (January 22) from the United States Embassy at Vienna.

Annual imports of mackerel from Yugoslavia (50 percent), Denmark (40 percent), and Portugal (10 percent) may be estimated at 170 metric tons.

Although Portuguese brands are most popular because they are packed in olive oil, a high customs duty of 85 gold crowns per 100 kilograms (about 10 U. S. cents a pound) keeps imports from that country at a low level. The customs duty on imports from Yugoslavia and Denmark amounts only to 15 percent ad valorem.

In order to find a ready market in Austria, mackerel must be packed in oil, preferably olive oil, or tomato sauce with oil added. The type of can most popular in Austria is the $\frac{1}{4}$ club, 30 millimeter, Portuguese style. Retail prices for these $4\frac{1}{4}$ -oz. cans range from 4.50-6.00 schillings (17-23 U. S. cents) a can.

Yugoslavia, Denmark, and Portugal, the countries exporting mackerel to Austria, maintain their export trade by catering to local taste with respect to flavor, packing medium, and size of cans.

Austria is not a fish-eating country, and meat is generally preferred. Fish consumption consists largely of cod fillets, fresh-water fish, such as carp, pike, and trout, and canned fish such as sardines, tuna, and anchovies.

United States exports of canned mackerel to Austria could only be effected if concessions were made by producers with respect to flavor, packing medium, and size of cans.

Even though canned mackerel in 8-ounce cans in natural brine of Japanese origin costs not more than mackerel of European origin in $4\frac{1}{4}$ -oz. cans, Austrian

importers refuse to import them because they feel that they cannot be sold. The reasons for this refusal are that they are (a) boiled, and (b) packed in natural brine.

NOTE: VALUES CONVERTED AT THE RATE OF 26 AUSTRIAN SCHILLINGS EQUAL US\$1 AND ONE GOLD CROWN EQUALS 6.96 SCHILLINGS.



Bolivia

CANNED MACKEREL MARKET: No canned fish of any type is produced in Bolivia, states a January 23 dispatch from the United States Embassy at La Paz.

Canned fish (primarily sardines and salmon) are consumed to a great extent in Bolivia's mine commissaries. As with all imported food products, the consumption outside of the subsidized commissaries is restricted to the very small high and middle-class income groups. Consumers prefer canned fish (principally salmon, but including mackerel and other fish) packed in brine. The retail price of the 15-oz. tall can, the most popular size, amount to about Bs.4,000 (52 U. S. cents) a can.

While Bolivia does have barter agreements with some neighboring countries, none of these has had more than a negligible share of the canned fish imports. Canada and the United States have been the principal suppliers of canned fish (mostly salmon). In 1955, Bolivia imported 1,222,951 pounds of canned fish (valued at US\$336,591) from the United States as compared with 35,057 pounds (valued at US\$9,331) for 1954. Imports from Canada in 1955 amounted to 46,279 pounds (valued at US\$12,501) as compared with 180,506 pounds (valued at US\$41,893) in 1954.

The majority of canned fish purchases have been for supplying the subsidized mine commissaries, and it is expected that with the new stabilization program put into effect in late December 1956 that the landed cost in Bolivia of such items will be beyond the purchasing power of mine laborers as a whole. It is anticipated that a severe reduction in canned fish and other imported foodstuffs will be experienced in the future. In view of the free trade provisions it is expected that all purchases will be strictly on a price basis and that superior quality will not be a prime factor.

Under the present difficult financial condition of Bolivia there does not appear to be any specific trading scheme which would lead to increased United States export except that of competitive prices. The market for canned fish, as has been previously explained, will probably be reduced even from its present low value in the coming year as the purchasing power of all but a very small segment of Bolivia's population is so low that imported canned foodstuffs will be beyond their reach. United States firms interested in the Bolivian market should refer to the trade list Foods, Importers, and Wholesalers and endeavor to obtain an agent or distributor to represent them in La Paz when the major purchases of foodstuffs are made for the mine commissaries.



Brazil

TUNA LANDED BY JAPANESE FISHING VESSEL: The Japanese fishing vessel Sagami Maru unloaded 100 metric tons of fresh fish of the "tuna family" at Salvador City, Bahia, Brazil, on January 16. The fish was sold at CR\$25.00-30.00 a kilogram (20-25 U. S. cents a pound).

This delivery of fish is the result of an agreement made between the Brazilian Ministry of Agriculture, the Bahia Agricultural Department, and the local price control board.

It is also reported that a privately-owned cold-storage plant for preserving perishable commodities, including fish, is under construction at "Calçada" in Salvador City. The installations, including buildings, will cost about CR\$50 million (US\$900,000).



Canada

THE FISHING INDUSTRY'S FUTURE: The preliminary report of the Royal Commission on Canada's Economic Prospects (Gordon Commission) predicts that the fishing industry will share, to a modest extent, in the increasing prosperity of Canada during the next 25 years. It emphasizes, however, that the fishing industry must receive the continuing attention of government, and perhaps receive increased assistance. The report recognizes that the United States tariff policies on fish are all important to the Canadian industry. The Commission advocates an adjustment in the Canadian doctrine of territorial waters, according to a February 13 dispatch from the United States Embassy at Ottawa.

The Gordon Commission preliminary report on "The Fishing Industry" characterizes the industry as one with special problems and with an importance exceeding its size. It points out that it is a dominant industry in areas where alternative cash income is not available, and that it is unique in that the resources on which it is based are located largely outside the limits of Canada.

The Commission recommends that Canada should (1) take every opportunity to negotiate the removal of barriers restricting international trade in fish, (2) re-examine Canada's doctrine of territorial waters, and (3) determine at a later date the requirement for government assistance for capital investment in larger fishing vessels and more modern processing plants. By implication a recommendation is made to (4) remove the discrimination against fishing vessels of over 65 feet in length.

It is the view of the Commission that during the next 25 years there will be (1) increased domestic demand for fish and that the United States will continue to be the most important export market. In this connection it considers any increase in the United States tariff would have a direct and adverse effect on the Canadian industry. (2) Continued biological and technical research are advocated which in the long run will lead to a requirement for larger vessels and more costly processing plants requiring larger capital investment. (3) The fishing population of Canada will become smaller by one-sixth and concentrated in fewer centers. (4) There will be an industry production increase of approximately 60 percent due to rising productivity. (5) Incomes in the fishing industry in 1980 will be substantially higher than those of today.

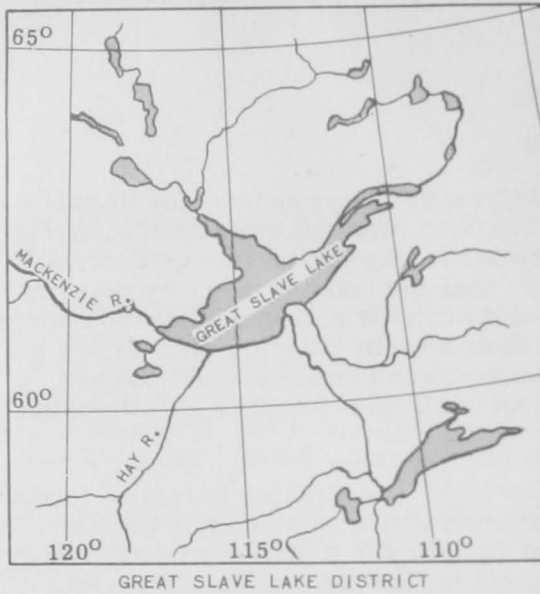
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GREAT SLAVE LAKE FISHERY: The Great Slave Lake fishery of Canada has just begun its summer and winter commercial fishing season, reports the November 1956 Trade Review of the Department of Fisheries of Canada. The combined whitefish and lake trout fishery of the Great Slave Lake is the largest of its kind in the world.

The story of the Great Slave Lake fishery is dramatically told in the film, "Fishes of the Great Slave." It is the newest addition to the growing file of moving picture films on Canada's fisheries being compiled by the Department of Fisheries of Canada as a means of portraying the far-reaching influence of this oldest of industries on Canada's social and economic structure.

The film vividly traces the evolution of the fishery from the time that scientists first undertook studies to assess the potentialities of the lake as a producer of fish on a commercial scale, to its present day stage of development.

The lake is fished by nine independent companies, each with its own base camp and fleet of boats. Since the lake is navigable only from June to October, the camp



are set up every summer, and closed at the end of the season. So the fishermen themselves are migrants. A daily trip to the fishing grounds is made. Two-man crews are the general rule for most boats, though some are manned by three and four. Every crew uses personal marker flags to identify its nets.

A gillnet is set in a straight line, usually on or near the bottom, in 30 to 250 feet of water. This net has a 5½-inch mesh, which will allow all small fish to swim through unharmed, thus helping to conserve the species. Occasionally 200 fish are hauled aboard in one net; 2 to 3 pounds is about the average size for whitefish and the lake trout on record for these waters weighed over 60 pounds. As soon as the net has been lifted the fishermen set it back in approximately the same place before moving on to lift another.

Each fisherman is licensed to operate 10 nets. Often they are set as much as half a day's run from the camp. As a result, some boats may be gone from camp almost from one day's end to the next. When they return it may be any time of the day or night. Back at the camp the boats unload onto a barge, a sort of floating factory, moored to the shore, where the fish are cleaned and dressed. The lake trout and whitefish are sorted into separate boxes as they come out of the ice-packed hold. They have been packed in ice since the moment they were taken from the water.

An average day's catch for two men would amount to about 3,000 pounds. More than 4 million pounds have been taken from the lake in one summer. As soon as they have been cleaned, the fish are once more packed in ice, this time in shipping boxes in preparation for a journey that may take them across the continent of North America. The journey begins as the boxes are lowered into the refrigerated hold of a freighter that will carry them a hundred or more miles across the lake, an all night voyage over a lake bigger and more treacherous than Lake Erie and in some places deeper than Lake Superior. Eventually the freighter reaches the southern shore and the town of Hay River, where the highway meets the lake. There the boxes of ice-packed fish start on the second stage of their journey. They are loaded from the freighter into refrigerator trucks. Canada's Department of Fisheries keeps records of every shipment.

Table 1 - Great Slave Lake Catches for Past Two Fishing Seasons

Species	Winter 1955/56		Summer 1956	
	Landings 1,000 Lbs.	Value C\$1,000	Landings 1,000 Lbs.	Value C\$1,000
Whitefish	1,830	275	2,245	146
Lake trout	487	68	2,161	159
Other (Inconnu, pike, pickarel)	187	9	107	8
Total	2,504	352	4,513	313

Off down the Mackenzie Highway, the fish of Great Slave Lake still have 3,000 miles to go. By road the boxes of fish reach Grimshaw, Alta. By train they cross

the continent to Chicago, Detroit, and New York--3,000 miles from the chill waters of the Great Slave.

By November the clear blue summer skies are forgotten in the darkening north.

The snowmobile has made commercial fishing on Great Slave Lake a year-round trade. It is equally at home on land and on the frozen lake. Use of the snowmobile and a thorough knowledge of the geography of the lake enables the fishermen to pick a good site.

First of all a hole must be dug through the ice. When the four feet of ice are finally penetrated, the water comes to the fishermen's assistance by carrying the ice chips to the surface where they are easily shovelled off. The next step involves the use of the jigger. This device has the mission of pulling the first line under the ice. While one man jerks on the line to propel the jigger, the other follows the jigger by listening from the surface.

When the jigger has travelled a hundred yards and the fisherman is quite sure that he knows exactly where it is, he digs a second hole through the ice and brings the jigger up. The rope remains stretched under the ice between the two holes, and is then used to pull the net itself under. The net finally comes to rest between the two holes anchored at top and bottom and in that position the men leave it for the span of a day. The next day when the fishermen come back to lift the net the water in the hole has usually frozen over to a depth of four or five inches.

When the fish come out of the water into the extreme cold of the winter air, they would soon freeze if the fishermen do not act quickly. Fresh fish commands a better price than frozen fish. Just as fast as they can be cleaned the fish are loaded into the heated snowmobile for the journey to market.

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MIDWATER TRAWL IMPROVED: New improvements have been made in the midwater trawl, adapted for the herring fishery off British Columbia by the Fisheries Research Board of Canada under the Industrial Development Service of the Department of Fisheries.

Two new advantages are claimed for the modified gear. Developments in gear design permit the net to be operated from single-gear trawlers, putting it within the economic range of relatively small-type vessels. A new type of otter board permits trawling both in midwater and on the bottom without damage to the gear.

The Fisheries Research Board said that recent fishing from the chartered boat Phyllis Carlyle, has proved successful in taking herring from midwater depths down within two fathoms of the sea floor. The man in charge of fishing operations on the Phyllis Carlyle said tests were hampered by an unusual delay in the appearance of herring in the Strait of Georgia in 1956, but that sufficient evidence has been gathered to show that the net can be operated efficiently.

The new midwater trawl is a four-sided net, having an opening of 30 feet at its front end. A combination of aluminum alloy trawl plane floats and newly developed droplane floats keeps the net from touching bottom, thus preventing damage from dragging on the sea floor. The new otter doors are also made of aluminum and can operate efficiently both in midwater and for bottom trawling, according to Trade News (December 1956) of the Department of Fisheries of Canada.

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NORTHWEST ATLANTIC TRAWL-NET MESH REGULATIONS: Regulations prescribing minimum mesh sizes in the Canadian Northwest Atlantic trawl nets were expected to go into effect when the required Order-in-Council was published in the Canada Gazette about February 13. The regulations apply to nets being used to fish ocean perch exclusively.

The regulations prescribe a minimum mesh size for all parts of the trawl. The parts mainly affected are the cod end, lengthening piece, and the aft part of the belly. Other parts of the trawl usually have larger meshes than those prescribed as a minimum. Mesh regulations are already in effect for subarea 5 (Georges Bank and adjacent waters). The regions affected by the new regulations are subareas 3 and 4. Subarea 4 includes the Bay of Fundy, Nova Scotian waters, and the Gulf of St. Lawrence. Subarea 3 includes the Newfoundland fishing banks.

The minimum mesh size prescribed for subarea 4 is the same as that for subarea 5. For subarea 4, manila netting used in otter trawls must have a mesh size larger than $4\frac{1}{2}$ inches, internal measure, measured wet after use. For subarea 3, the minimum mesh size for manila netting is 4 inches, measured in a like manner. Other materials shrink and stretch to a different degree than manila. They may also allow the escape of different sizes of fish than manila through the same size mesh opening. The necessary equivalents for other materials are thus included in tables, which have been circulated in the industry. Also included in these tables are the recommended mesh sizes of new netting which should meet the minimum mesh size specified (Fisheries Council of Canada Bulletin, January 18, 1957).

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USE OF AUREOMYACIN FOR FISH PRESERVATION HELD UP: In October 1956 when the Canadian Department of National Health and Welfare approved the use of an aureomyacin derivative as an aid in the preservation of fish, it was believed that it would delay spoilage and make for a fresher product in the markets. However, since the United States Food and Drug Administration has not approved the use of aureomyacin for fish and shellfish, Canadian fishermen have not found it practical to maintain two separate icing procedures: one portion of the catch being iced with aureomyacin-treated ice products and the other portion being iced with the non-treated ice. Therefore, these circumstances are retarding the use of aureomyacin derivatives to preserve fish in Canada.

Although the Canadians have found that aureomyacin-treated ice was harmless when used to preserve fish, the United States authorities have found that fish preserved with treated ice retain residual traces of aureomyacin, even after packaging and final cooking.

NOTE: ALSO SEE COMMERCIAL FISHERIES REVIEW, OCTOBER 1956, P. 59.



China (Communist)

FISHERIES PRODUCTION, 1956: Total fisheries production in Communist China in 1956 was 2.55 million metric tons, despite the hurricanes of last summer, the Chinese Minister of Aquatic Products announced on February 11. This was an increase of 30,000 tons over 1955.

A total of 62 modern trawlers were constructed in Communist China in 1956 as against only 20 in 1955. The construction of modern trawlers seems to presage a more active role in offshore fisheries.



Colombia

CANNED MACKEREL MARKET: No canned mackerel or jack mackerel are produced in Colombia, and in the past, only a small amount has been imported from California. The consumption of canned mackerel in Colombia is believed to be nil at the present time, because mackerel is reported to have a strong taste which does not appeal to many South Americans. Consumption in the past was believed to have been confined to foreigners, particularly Europeans, who have acquired a taste for this type of fish. The most popular size of can formerly used was the 15-oz. oval, packed in tomato sauce. The retail price for canned mackerel early in 1956 was Ps\$2-2.50 (50-63 U. S. cents) a can.

The quantity and value of canned mackerel imported into Colombia is not available because official import statistics do not show a breakdown by types of fish. These statistics include sardines and other types of fish in "hermetically-sealed containers." The principal countries of origin for canned sardines and fish of all types were the United States, Portugal, Spain, Canada, Japan, and the United Kingdom.

By Decree No. 2643 of November 2, 1956, the Colombian Government placed all canned fish on the Prohibited List of Imports. Therefore, the exportation of this commodity to Colombia is not feasible at the present time, since no import licenses are issued for items on the Prohibited List. However, as the domestic production of canned fish is known to be inadequate to meet the demand of the Colombian market, it is believed that this commodity will shortly be taken off the Prohibited List and that a limited number of licenses will be issued to local importers, according to a January 31 dispatch from the United States Embassy at Bogota.

A strong advertising campaign, made through local newspapers and magazines, emphasizing the low cost and high protein content of canned mackerel, might lead to an increase of United States exports to Colombia. Also, considering that the local fish-canning industries have been given full Customs Tariff protection, United States trade sources might consider the possibility of establishing such canneries in Colombia, or, of making capital investments in the local canneries now in operation, in order to obtain a larger share of the Colombian market for canned fish.



Ecuador

SHRIMP FISHING AND PROCESSING INDUSTRY: Although the shrimp fishing industry of Ecuador is small, prospects for future expansion are good. The manager of the United States-owned shrimp fishing and processing company in that country estimates the catch at 1.8 million pounds of headless blue-white shrimp (8-15 count a pound heads-on) and about 400,000 pounds of heads-on sea bob (35-50 count heads-on) annually. The large blue-white shrimp are similar to the shrimp taken in the Gulf of Panama and off the west coast of Mexico. The sea bob shrimp is used locally, but most of the blue-white shrimp is processed, packed, and frozen for export to the United States.

Shrimp fishing craft early in 1956 included 20 modern-type shrimp trawlers and 6 smaller poorly-equipped vessels. Nets with 1.5-inch mesh or larger are used. About 100 fishermen are employed in the shrimp fishery. Processing facilities consist of a small freezer and cold-storage plant at Quayaquil, with a freezing capacity of 10,000 pounds a day and a storage capacity of about 40,000 pounds. A larger freezer with a 20,000-pound daily freezing capacity and a storage capacity of 25,000 pounds is in the planning stage. This project may also include a small cannery. In addition to the above facilities, a floating freezing plant with a freezing

capacity of 20,000 pounds a day and a storage capacity of 130,000 pounds was operating in the Esmeraldas and the Gulf of Quayaquil (the principal fishing ground). An additional shrimp freezership is reported to have entered the shrimp fishery about April 1956.

The shrimp fishing areas are located in the Gulf of Quayaquil, about 50 miles from the Quayaquil, and off the northern part of the Ecuadorian coast between Esmeraldas and Cabo Manglares. The shrimp fishing seasons are not well defined, but the period between March and October is believed to be the most productive.

In order to increase the shrimp catch, additional capital is needed for fishing docks and machinshop facilities. Fresh-water supplies along the coast are limited and ice plants are not available within easy operating range of the shrimp vessels. Ice is plentiful in Quayaquil, about 50 miles from the Guayaquil Gulf fishing area. There are no docking facilities in the two fishing areas.

Prices are variable and are estimated to average about 45 U. S. cents a pound ex-vessel. Processing costs for washing, grading, packing, freezing, and storage average 13-15 U. S. cents a pound, and other charges for taxes and export duty about 2 cents a pound. The cost for ocean transport, insurance, customs clearances, and cartage into a United States warehouse is estimated at about 8 cents a pound. (United States Embassy dispatch from Quito, dated April 16, 1956.)

The imports of shrimp by the United States from Ecuador amounted to about 1.6 million pounds in 1955 and 3.0 million pounds in 1956. Comparing the imports with the average annual landings of 1.8 million pounds of blue-white shrimp leads to the conclusion that the shrimp fishery of Ecuador is expanding at a fairly rapid rate.



France

FISHING INDUSTRY DEVELOPMENTS: A special Committee has been set up by the French Government to study the structure of the whole fishing industry. It is hoped that some concrete suggestions will emerge including one concerning the vexing minimum net mesh question. The French want a much smaller mesh than other European countries.

The Central Fishing Committee has asked that not over 50 tons of Iceland fish a week should be sold at Boulogne. It is pointed out that the port has made tremendous efforts to refloat its industry which was almost destroyed during the war. While it has no objection to some imports, it is against uncontrolled imports from Iceland.

The French Government has agreed to make a grant of about US\$1.4 million for the construction of a special research trawler to be placed at the disposal of the French Fishing Institute, the fishery periodical World Fishing of January 1957 states.



French West Africa

TUNA FISHING INDUSTRY: Number and Types of Vessels: During the tuna fishing season which started in the middle of November 1956 and will end probably in May 1957, 43 vessels were fishing, using Dakar harbor as their base. This fleet

is composed of 22 "baby clippers" from the St. Jean-de-Luz area (Basque coast of France), 19 trawlers adapted to tuna fishing from Brittany, and one large tuna clipper permanently based in Dakar harbor. This latter vessel, owned by a Frenchman, was brought to Dakar last year under the Honduran flag and has since been "naturalized" French. The owner of this tuna clipper is reported to have purchased a second such vessel from Peru and intends bringing it to Dakar. Fishing is done with rods, using live bait (sardinelle).

Landings: For the period of mid-November to December 31, 1956, approximately 2,000 metric tons of tuna were caught. Only one type of tuna is being fished, namely the albacore tuna or locally known as yellow-finned tuna (Neothunus albacora). The rather exceptionally cool weather conditions presently prevailing in the Dakar region have caused the tuna to swim further south than is normal in this season and also to swim deeper, thereby seriously affecting the fishermen's success, which was considered to be disappointing in comparison with last year.

Disposition of Catch: The whole catch is reserved for French Metropolitan canneries to which the fishing fleet and supporting vessels are chartered. With the exception of the one tuna clipper, the fishing vessels have no refrigerating equipment. As soon as they return to Dakar with their load they transfer it to a ship especially equipped for quick-freezing brought over from France under charter to French canneries. When the fish is frozen (whole), it is again transferred to one of four refrigerator ships (also operating under the same charter) for transport to France. The presence of such a ship equipped for quick-freezing was reportedly necessary since even the recently expanded refrigerating facilities at the port of Dakar were not considered sufficient during the fishing season.

Value of Catch: Since practically the whole catch is destined to Metropolitan France and since the season is not yet completed, it is difficult to determine exactly the value of the catch. The price delivered to Dakar is estimated at about US\$264 a ton.

Future Plans: Although this season's catch has not yet appeared to meet the high expectations formulated last year, the general belief is that tuna fishing along the western coast of Africa would be a very worthwhile activity and that serious thought must be given to the establishment of a local cannery industry there. Two pilot plants are already functioning, but the decision to firmly establish a fish cannery industry depends on a number of important factors. (United States consular dispatch dated January 24 from Dakar.)



Iceland

FISHERIES TRENDS, DECEMBER 1956: The principal fishing season began early in December without delay, according to a dispatch (January 11, 1957) from the United States Embassy at Reykjavik. Sales of fresh fish on ice to the United Kingdom were encouraging.

The agreement on the production basis for the fisheries reached in December 1956 permitted the main fishing season for groundfish to get under way without delay and most of the trawlers and motorboats were active at that time. Because of the lifting of the British landing ban in the fall of 1956 and the continuation of the good Faxa Bay herring catches into December, there was almost no suspension of activity between the fall and winter seasons. Most trawlers and motorboats alike fished until the lay-up for Christmas or to refit for the January groundfish season.

The press and trawler owners continued to be optimistic over the progress of sales of fresh fish at good prices to England. The quota for landings at English ports in January was filled before the 11th of the month. Prices continue to range from 2-3 times those received in Iceland.

For the first time in some years the trawlers are having little difficulty in finding qualified seamen. The iced-fish trade mitigates the seaman's hard life considerably by permitting him either several days of shore leave in Iceland while the ship is making the trip to England or relatively easy shipboard duty during the voyage.

The motorboat fleet, on the contrary, still needs as many imported Faroese seamen as last year, and perhaps a few more. Two ships have already stopped at the Faeroes to pick up seamen and the total brought in is expected to be over 900.



Italy

CANNED TUNA IMPORTS, 1954-55: During 1954 and 1955, Italy's imports of canned tuna averaged about 7,736 metric tons, according to a December 20, 1956, dispatch from the United States Embassy in Rome.

Table 1 - Italy's Imports of Canned Tuna in 1954 and 1955 by Country of Origin

Country	1955	1954
... (Metric Tons) ...		
Portugal	2,459.5	3,550.9
Spain	1,742.6	1,256.6
Spanish Morocco	1,593.1	1,200.2
Libia	392.7	640.8
W. Equatorial Africa	-	-
Spanish Africa	461.0	548.6
United Kingdom	0.2	-
United States	-	0.1
Others	786.1	839.4
Total	7,435.2	8,036.6

Italian imports of canned tuna range from 7,000 to 8,000 metric tons a year (see table).

Tall cans of approximately 5 and 10 kilos (11-22 pounds) are the sizes most commonly used inasmuch as the tuna is chiefly sold in retail stores by "etti" (about 3.5 ounces), two etti or even one-half etto is the quantity generally requested by Italian consumers.

Cans of 7-8 ounces are also available in the market but they are not preferred because of the expense and have, therefore, little importance in the over-all market.

In respect to the importation of fresh and frozen tuna, no official statistics are available. About 11,000 metric tons of canned tuna is estimated to have been produced in 1955 by the Italian canning industry, of which about 10,000 tons were obtained from 14,000 metric tons of imported frozen tuna and approximately 1,000 tons from the domestic catch.

There is very little interest about possible imports of canned tuna from the United States due to the present Italian import restrictions for this item from the dollar area.



Japan

BRITISH WHALING FLEET PURCHASE DISAPPROVED: The proposed purchase of the British whaling fleet (consisting of the Southern Venturer fleet) by a Japanese whaling firm has not been approved by the Japanese Fisheries Agency. The reason given for the refusal was reported to be due to possible adverse reactions by other whaling nations. The Japanese whaling fleets have been increased in the past year by the purchase of the Olympic Challenger fleet, formerly owned by a Greek shipowner, and the Abraham Larsen fleet, formerly owned by a firm in South Africa.

Another Japanese whaling firm has been negotiating for the purchase of whaling craft for sperm whaling in the Okhotsk Sea. This firm was reported to have entered into negotiations with a French firm for the purchase of a whaling factoryship registered in Panama. Later reports stated the negotiations had been fruitless and the firm is now considering purchasing a ship in Japan (United States Embassy dispatch from Tokyo).

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CANNED CRAB MEAT PACK, 1956: The Japanese pack of king crab and kegani crab meat for 1956 (preliminary) amounted to 793,350 cases as compared with 767,906 cases (including king, hanasaki, red, kegani, and other crab meat) for 1955, according to a February 25, 1957, dispatch from the United States Embassy in Tokyo.

Exports of Japanese crab meat during 1956 (preliminary) totaled 574,000 cases as compared with 457,483 cases for 1955. Of these totals, 253,000 cases were shipped to the United States in 1956 and 230,824 cases in 1955.

There were no Government export check prices on crab meat during 1956. However, an organization established by crab meat producers, whose responsibility it is to sell all Japanese crab meat to exporters, established the following export prices for Japanese crab meat which were charged by exporters during 1956: king crab meat US\$24.65 f.o.b. Japan a standard case; and kegani crab meat US\$12.65 f.o.b. Japan a standard case.

Product	1956	1955
	(Standard Cases ^{1/})	
King crab meat:		
Eastern Bering Sea (Bristol Bay)	59,850	^{2/} 62,421
Western Bering Sea (Off Cape Olyutorskoe)	54,500	-
Okhotsk Sea	313,000	147,000
Off Hokkaido	70,000	124,603
Total	497,350	334,024
Kegani crab meat:		
Off Hokkaido	301,000	339,772
Other crab meat:		
Japan Sea	^{3/}	93,510
Grand Total	798,350	767,306
^{1/} STANDARD CASE CONSISTS OF 48 6½-OZ. CANS. ^{2/} INCLUDES 2,571 CASES OF RED CRAB MEAT. ^{3/} FIGURES NOT AVAILABLE.		

Members of the crab meat industry in Japan are very guarded in their opinions concerning the outlook for 1957. Discussions between Japan and the Soviet Union concerning fishing operations in the area covered by the Soviet-Japanese Fisheries Convention are now under way and the outcome of these discussions may have an important bearing upon Japanese fishing operations during 1957, since most of the Japanese crab catch is taken within the convention area. The Japanese do not expect a quota to be placed upon the catch of crab in the convention area but there is a strong possibility that there will be some restrictions placed upon the type and amount of gear that can be used as well as a designation of the allowable female/male ratio per haul.

The Japanese industry expects to send one fleet to the Eastern Bering Sea (Bristol Bay) as usual and four fleets will probably be sent to the Okhotsk Sea as was done last year, if no catch restrictions are imposed as a result of the current Soviet-Japanese discussions. There is some speculation as to whether the fleet which operated in the Western Bering Sea, off Cape Olyutorskoe, will again operate in this area this year. Operators of the fleet complained that the catch last year, which was the first year of operation in this area, was very poor and that they would prefer to operate in the Okhotsk Sea during the coming season.

It is generally expected that if there are no restrictions on the catch and if the gear limitations are not excessively restrictive, the catch of king crab for 1957 will be approximately the same as during 1956. Of course if stringent restrictions are imposed upon Japanese operations, the catch will be smaller. Members of the industry expressed some pessimism over the 1957 king crab prospects and most operators agree that the catch will probably be below the 1956 level.

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EXPORTS OF FISHERY PRODUCTS UP IN 1956: While the quantity of Japanese exports of fish and fish products rose 26.6 percent from 1955 to 1956, the value of those exports rose 59.5 percent. Total fish and fish products exports in 1956 amounted to 196,363 metric tons (valued at US\$120.6 million) as compared with 155,108 metric tons (valued at US\$75.6 million) in 1955, according to the Japanese Ministry of Finance and as reported by the United States Embassy in Tokyo in a February 12 dispatch.

JAPANESE GOVERNMENT



Mexico

CANNED SARDINE MARKET: Four canneries, all located in or near Ensenada, Baja California, pack California sardines for consumption within Mexico. Estimated production runs about 250,000 cases annually. In addition, two small canneries in Veracruz pack Spanish mackerel and tarpon under the label of sardines, but this production is insignificant.

Local production accounts for almost all the sardines consumed within Mexico. Since 1951 exports of sardines from Mexico have been insignificant, averaging less than one-half ton a year.

Mexican consumption of sardines is estimated to be about 260,000 standard cases annually. Of this amount, about 95 percent is produced locally and 5 percent is imported. The imported pack is almost entirely from Europe and consists of sardines in olive oil. The local pack is divided about equally between tomato sauce and natural pack.

Current consumption is towards the locally-produced pack. Government policy encourages this trend. Imported sardines carry a duty of about 20 U. S. cents a pound. The Mexican pack, either natural or in tomato sauce, retails for about 22 pesos (22 U. S. cents) for a one-pound can. Imported 6 1/3 -oz. Spanish sardines in olive oil retail at between 7.75-9.50 pesos (62-76 cents) a can, or approximately US\$1.57-2.00 a pound.

It is not likely that any appreciable amounts of Maine sardines can be imported from the United States, a January 15, 1957, dispatch from the United States Embassy in Mexico City states. The Mexican import duty forces the retail price into the luxury category where historically the consumer preference has been for an olive oil pack.

The Mexican pack is put up in four types of cans: one-pound oval and tall, one-half pound tall, and five-ounce tall. The imported pack is mostly 3¼ to 5 oz. flat with a small amount of 6¼ and 11 oz. flats.

Slightly more than one-half of the Mexican pack is put up in tomato sauce in one-pound ovals. The remainder of the Mexican pack is natural in five-ounce, eight-ounce, and one-pound tall cans. The imported pack is almost exclusively in olive oil, although very small amounts of sardines in mustard and tomato sauce are imported. The preference for style of pack is estimated to be: tomato sauce, 50 percent; natural, 45 percent; and olive oil, 5 percent.

The consumption of sardines in Mexico is limited practically to the middle and high income groups. Prices of canned goods, in general, are too high for the low income group. Estimates of sardine consumption by income groups are: high, 10 percent; middle, 89 percent; low, 1 percent.

The bulk of the Mexican sardine production is handled by two distributors in the Federal District who supply local retail stores and secondary distributors in the outlying territories. The sardines are customarily transported from Ensenada to Tecapulco by boat and then by truck to Mexico City. Sardines are usually imported in relatively small amounts by a large number of distributors who sell either directly to retailers or to secondary distributors.

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SHRIMP FISHERY TRENDS, FEBRUARY 1957: The Mexican shrimp catch during February is estimated to be down about 2 million pounds from the same month in 1956. The west coast catch is running about 50 percent of last year's catch and that from the east coast is higher than a year ago.

The closed season for shrimp fishing on the west coast from Mayarit north began on March 16 to last one or two months, depending on the spawning conditions of the shrimp. During this period Mexican west coast shrimp fishing will be confined to shrimp grounds off Salina Cruz in the Province of Oaxaca. The shrimp grounds off the east coast are open the year around.

There are about 60 shrimp trawlers under construction in shipyards on Mexico's east coast, states a March 11 dispatch from the U. S. Fisheries Regional Attache in Mexico.



Norway

1957 WINTER HERRING SEASON A FAILURE: The winter herring fisheries off Norway's west coast were a failure this year, especially when compared with the record catch in 1956. At the end of the season (mid-February) fishermen had landed only about 560,000 metric tons of mature herring, with a first-hand value of some \$131.5 million (US\$18.4 million). This season's catch was 300,000 tons less than last year, and the difference in first-hand value is estimated at Kr. 70 million (US\$9.5 million), a heavy loss for the fishermen. The fleet this season suffered heavy losses of gear as a result of strong winds on the fishing grounds.

The spring herring fisheries season which officially opened February 15, is also off to a poor start, despite rather fair weather conditions. During the first five days, only 50,000 tons were landed. On top of the poor catch, fishermen get lower prices for spring herring. After the spawning is over in mid-February, the herring become leaner and less desirable than before.

The failure of the winter herring fisheries cut deliveries to reduction plants to 390,000 tons, as against 800,000 tons in 1956. The salted herring production is also substantially below the 1956 figure. The herring transport fleet, too, has been hard hit. Many vessels stayed in port 5-6 weeks without getting a single cargo.

The main fishing season for large herring ends about the middle of February



Pakistan

NYLON NETS HELP FISHERMEN: Nylon yarn supplied to West Pakistan fishermen by the Pakistan Central Fisheries Department for knitting nets has helped to increase their fish catch. The fishermen became aware of the value of nylon netting during World War II when surplus parachute nylon fiber was used in nets. Some excellent hauls by Karachi fishermen has aroused considerable enthusiasm on the part of the fishermen for nylon nets.

With the help of the commodity aid agreement between Pakistan and the United States, officials of the Pakistan Central Fisheries Department distributed US\$100,000 worth of nylon to the fishermen in 1956. Under the agreement, the United States undertook to supply the necessary foreign exchange which was lacking, for importing consumer goods or industrial raw materials, which included nylon for fishing purposes. Government officials estimate that about 1,000 fishermen have benefited from the sale of nylon. Since the supply was limited, distribution was restricted to the most deserving fishermen.

The fishermen have learned that while cotton nets last only about six months, nylon nets are good for at least three years. In addition, nylon nets are tougher and can handle bulky catches without breaking. Therefore, nylon netting in spite of the higher cost a square yard is really more economical in the long run.

As part of the commodity aid agreement between the United States and Pakistan the nylon netting was sold to the fishermen at cost and is to be repaid in long-term installments. The money realized from the sale of the netting is to be placed in a special fund to be used for furthering the development program of Pakistan. (Pakistan Affairs, September 16, 1956.)



Portugal

CANNED FISH TRENDS, JUNE-DECEMBER 1956: Fish canning in northern Portugal improved toward the end of 1956 when catches were more abundant.

Early in the 1956 fish packing season, due to a scarcity of fish, prospects were far from bright; but from September onwards, catches became more abundant, the plants were fully occupied, and an easy outlet at remunerative prices was invariably found.

According to published statistics, canned fish exports for the first eleven months of 1956 declined by about 20 percent in quantity but only by about 8 percent in value. The natural inference is that although prices increased, industrial activity must have suffered considerably. The latter aspect, however, will probably show up differently when figures for the complete year are obtainable. Sardine canning is a seasonal occupation, which roughly coincides with the second half of the year. The principal decline in exports took place in the early part of 1956, during the "close"

of the season, owing to the low stocks left over from the 1955 packing season. At present, stocks held by packers are only moderate and prices remain firm, reports a February 12 dispatch from the United States Embassy in Lisbon.

The industry appears to be in fair financial condition, and 1956 may well rank as one of its good trading years.

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CANNED FISH EXPORTS, JANUARY-SEPTEMBER 1956: For the first nine months of 1956, canned fish exports amounted to 29,255 tons (1,539,300 cases), valued at US\$17.0 million, as compared with 42,769 tons, valued at \$21.7 million, for the same period in 1955. Sardines in olive oil exported during the first nine months

of 1956 were down 12,679 tons from the similar period in 1955.

Table 1 - Portuguese Canned Fish Exports, January-September 1956

Species	1956	
	January-September	
	Metric Tons	US\$ 1,000
Sardines in olive oil	21,283	11,451
Sardinelike fish in olive oil	3,060	2,580
Sardines & sardinelike fish in brine	711	149
Tuna & tunalike in olive oil	1,373	1,111
Tuna & tunalike in brine.....	279	163
Mackerel in olive oil.....	2,173	1,331
Other fish	376	186
Total	29,255	16,971

For January-September 1956, the leading canned fish buyer was Germany with 4,734 tons (valued at US\$2.6 million), followed by the United Kingdom with 4,241 tons (valued at US\$2.3 million),

Italy with 3,942 tons (valued at US\$2.4 million), and the United States with 3,001 tons (valued at US\$2.2). Exports to the United States consisted of 1,407 tons of sardines, 1,250 tons of anchovies, and 12 tons of tuna. (Conservas de Peixe, November 1956.)

* * * * *

CANNED FISH PACK, JANUARY-SEPTEMBER 1956: The total pack of canned fish for January-September 1956 amounted to 32,164 tons as compared with 26,198 tons in a similar period of 1955. Canned sardines in oil (13,748 tons) accounted for 43 percent of the

January-September 1956 total canned fish pack, but in the same period in 1955 they accounted for 70 percent (18,214 tons). The pack of sardinelike fish in oil for the first nine months in 1956 of 10,495 tons is much higher than the 2,672 tons packed during the same period in 1955.

Table 1 - Canned Fish Pack, January-September 1956

Product	Net Weight	Canners' Value
	Metric Tons	US\$ 1,000
	In Olive Oil:	
Sardines	13,748	8,267
Sardinelike fish.....	10,495	5,353
Tuna	1,514	1,184
Other species (incl. shellfish)	555	374
In Brine:		
Sardinelike fish.....	4,414	1,116
Other species	1,438	262
Total.....	32,164	16,556

NOTE: VALUES CONVERTED TO US\$ EQUIVALENT: 28.75 ESCUDOS EQUAL US\$1.

The Portuguese pack of canned sardines in oil during the month of September 1956 (6,710 tons) was almost double the 3,511 tons packed during the previous month and higher by 1,913 tons than the 4,797 tons packed in September 1955. The pack of all canned fish in September 1956 amounted to 11,823 tons, the January 1957 Conservas de Peixe reports.

Prices to the canners for canned sardines in oil during January-September 1956 were higher by about 14 percent as compared with the similar period in 1955.

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FISHERIES TRENDS, AUGUST-SEPTEMBER 1956: Sardine Fishing: The Portuguese sardine catch during September 1956 increased to 19,883 metric tons (ex-vessel value US\$1,761,078), or 8,472 tons above the catch of 11,411 tons for the previous month. The September sardine catch was good and exceeded that for September 1955 by 3,907 tons. By the end of September the sardine fishery was beginning to improve as compared with the first eight months during which catches were well below the first eight months of 1955.

Sardines purchased by the packing centers during August amounted to 5,167 tons (value US\$667,000), and 11,004 tons (value US\$1,283,000) in September. During August 1955 the canners purchased 8,356 tons (valued at US\$1,102,000), and 8,889 tons (valued at US\$1,015,000) in September. The balance of the sardine catch in both months entered the fresh fish market.

The principal port of landing for sardines in August and September was Matosinhos with between 51-54 percent of the catch, followed by Setubel and Lisbon.

Other Fishing: The August 1956 landings of fish other than sardines totaled 11,790 metric tons (valued at US\$1,221,627 ex-vessel) and consisted of 2,003 tons of tuna, 5,578 tons of mackerel, 4,140 tons of chinchard, 15 tons of bonito, and 54 tons of anchovy.

In September 1956, landings of fish other than sardines totaled 2,314 metric tons (valued at US\$127,097 ex-vessel) and consisted of 2,254 tons of chinchard, and 60 tons of anchovy (Conservas de Peixe, October and November 1956).



Spain

VIGO FISHERIES TRENDS, NOVEMBER 1956: Fishing: Landings at Vigo during November 1956 totaled 10.9 million pounds valued at about US\$963,970 ex-vessel. The November catches were about 29 percent lower than those of the previous month and about 12 percent below the November 1955 catches. However, November 1956 was considered a fair month by the fishing industry, states a December 6 dispatch from the United States Consul in Vigo.

An increase in average prices for fresh fish is one more indication of the higher cost of living. Operating expenses of the fishing fleets and distributors went up as the result of the new official wage rates. It is said that the new wage scales represent an increase of about 30 percent for the fishing industry.

Small and some medium-size sardines were the principal catches during November a total of 3.4 million pounds, followed by horse mackerel (Trachurus trachurus) with 1.9 million pounds. Albacore tuna catches were insignificant during November--as the season was over. One other species of commercial importance in November was the "castaneta" or dollarfish.

A number of fishing vessels operate out of small ports in the Province of Lugo but part of the catches are landed at ports in Asturias, especially their albacore catches which amounted to 2.9 million pounds during the June to November season.

Fish Canning: The fish canneries in the Vigo area purchased 2.2 million pounds of fresh fish during the month as compared with 4.9 million pounds for the previous month and 3.7 million pounds in November 1955. Most canneries were operating during November 1956, but on a reduced scale as compared with the previous month.

Sardines and clams were the principal species available for packing. However, during the latter part of November, the canneries commenced to purchase a portion of the heavy catches of horse mackerel. Fishing interests feel certain that the sardine is returning to Spanish coastal waters due to the presence of small fish in the catches. The present sardine catches range from 14-18 fish to a pound as compared with 11-13 a pound for the large sardine taken in past years.

The fish canneries continue to be deeply concerned over the tinsplate situation. Some of the leading canneries (about 14 in the Vigo area) make their own cans but have lighthographing done outside. It is reported that the imports of tinsplate amounted to 8,000 cases weighing approximately 1.7 million pounds during November. However, a portion of this quantity reached other parts of Spain, but a fair share was made available to the canneries in the Vigo area. The supply of tinsplate is considered inadequate by the canneries.

Olive oil for fish packing is usually scarce and often difficult to obtain. Although the official price is 18.6 U. S. cents a pound, there is an open market and the canneries usually find it necessary to pay higher prices. It is the general opinion, however, that there will be no serious shortage of olive oil and the prospects are good for an adequate supply during 1957.

For some cannery workers, there is an increase of 100 percent in wages. Women packers formerly earning around US\$0.51 a day are now being paid approximately US\$1.03 a day. It is believed that the price of canned fish will be increased about 20 percent in some manner as the result of the new wage scales. Domestic sales have been fair but slowed up slightly around the end of November.

Exports of canned fish also slowed up, due to the price situation. The canneries now feel that the Spanish Government should allow a higher rate of exchange (presently 33,385 pesetas to the U. S. dollar) on exports or increase their percentage of foreign exchange (presently 20 percent) which is allowed for the payment of approved imports.

NOTE: VALUES CONVERTED TO US\$ EQUIVALENT AT RATE OF 1 PESETA EQUALS US\$0.0257.



Sweden

NEW REGULATIONS FOR BALTIC FISHING: Swedish government regulations (effective February 1, 1957) for the protection of certain species of fish in the Baltic have removed the prohibition concerning plaice fishing during February and March, states a January 29 dispatch from the United States Consul at Göteborg.

Under the new regulations the minimum sizes for plaice have been changed from 18-24 centimeters (7.1-9.4 inches) to 26 centimeters (10.2 inches) and for founders from 18-22 centimeters (7.1-8.7 inches) to 20 centimeters (7.9 inches). For cod there is a minimum size of 30 centimeters (11.8 inches) which is the same as is permitted in the North Sea and the Öresund.

The minimum size in the meshes of trawls, seines, and similar fishing equipment has been increased from 6.5 to 7.0 centimeters (from 2.6 to 2.8 inches) for the catching of mackerel, herring, eel, shrimp, and a few other types of fish, in the Baltic, the Öresund, and the Belts. The regulation on mesh size become effective

May 1, 1957. However, fishing gear now permitted may be used until January 1, 1958, provided the cod ends conform to the new regulations as to the mesh size.



Thailand

JOINT THAILAND-JAPANESE FISHING BASE PROPOSED: According to press reports from Thailand, a new fishing base will be constructed on Terutea Island, off the western coast of South Thailand, with the help of the Japanese Overseas Fishery Cooperative Association. A group of Japanese headed by the Chairman of the Cooperative Association were expected to meet with Thai Government officials in Bangkok on February 12. The group was to survey the possibilities of developing new fishery resources, construction of a fishing base to accommodate 100 fishing vessels, and facilities for cold storage, processing, and canning.



Turkey

CANNED MACKEREL MARKET: The pack of canned mackerel in Turkey is carried on in privately-owned factories located in Istanbul, Gelibolu, Ergli, Izmir, and Canakkale.

Consumption of both fresh and canned mackerel has been increasing steadily over the past ten years. Most of the pack is natural, but some also contains olive oil. Practically all of the cans used are oval. The retail price varies considerably depending upon the supplier. Based on a recent price survey, the price in Ankara varied from TL1.60 to TL2.50 (57-88 U. S. cents) for cans varying from 95-150 grams (3.4-5.3 ounces) net. The retail price of fresh mackerel varies with the season. Prices this winter in Istanbul varied from TL10.50 to TL16.50 per kilo (US\$1.69-2.65 a pound).

There have been no imports of canned mackerel into Turkey.

Turkey exports fresh and salted mackerel to Greece, Italy, Bulgaria, the United States, and Yugoslavia. In 1954, the last year for which data are available, Turkey exported a total of 9,471,902 pounds of fresh and 4,149,552 pounds of salted mackerel.

Because of the shortage of foreign exchange, all imports into Turkey are under license. Only those commodities that are absolutely essential to the economy of the country are granted licenses. Because of the size of the domestic fishing industry and the low priority placed upon food items, there appears to be no potential market for canned mackerel in Turkey in the near future, states a January 16, 1956 dispatch from the United States Embassy in Ankara.

NOTE: VALUES CONVERTED AT THE RATE OF US\$1 EQUALS 2.80 LIRAS.



U. S. S. R.

A MECHANICAL METHOD OF DRESSING COD ABOARD FISHING VESSELS: The cutting of cod by hand aboard fish vessels requires a great deal of room as well as labor and often consumes time that should be spent in fishing. Therefore, advantages of mechanization should be considered, points out an article in the November 1956 issue of the French periodical La Peche Maritime La Peche Fluviale and La Pisciculture.

The method most commonly used at sea to dress fish for shipping as fresh or salted is shown in figure 1. The head is cut off with a special knife prior to gutting the

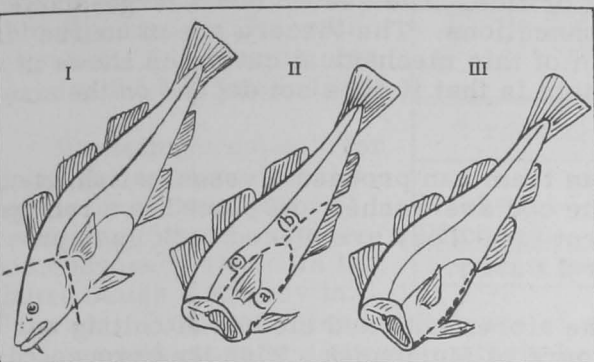


FIG. 1 - I, REMOVAL OF THE HEAD. II, CUTTING FOR SALTING: (A) THE STOMACH CUT EXTENDING TO THE ANAL ORIFICE; (B) THE MUSCLE CUT THE LENGTH OF THE FIRST ANAL FIN; (C) THE SWIM BLADDER CUT. III, CUTTING FOR DISTRIBUTION AS FRESH FISH.

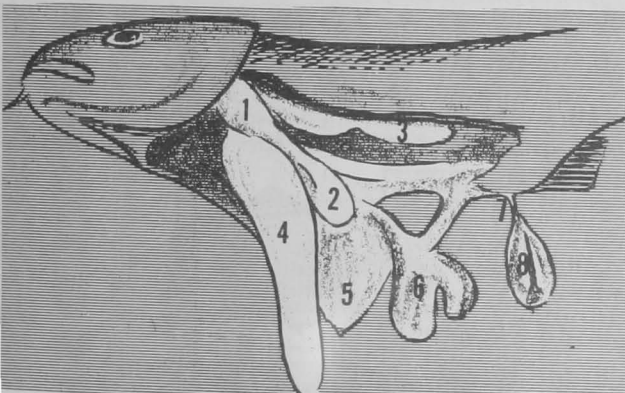


FIG. 2 - DISPOSITION OF THE INTERNAL ORGANS OF THE COD. 1. ESOPHAGUS, 2. STOMACH, 3. SWIM BLADDER, 4. LIVER, 5. PYLORUS, 6. INTESTINE, 7. ANAL ORIFICE, 8. ROE.

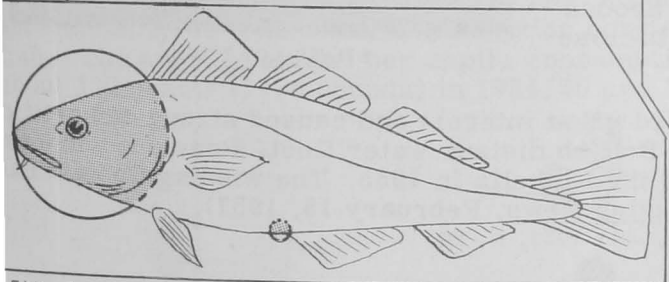


FIG. 3 - SCHEMATIC DIAGRAM SHOWING THE CUTTING OF COD BY THE NEW METHOD.

fish In the second method, the muscles of the fish are cut parallel to the spinal column to the end of the first anal fin. Using this method, two-man teams can process 20 to 25 fish a minute. When the catch is heavy, the entire crew may be commanded for this operation and thus slow up or stop the setting of the net.

A study of cod has shown that the viscera are attached at two points--near the head in the ventral cavity and near the anal orifice (figure 2). This anatomical knowledge has been utilized by the trawler Dniepr to improve the manual cutting of fish--the procedure developed was in fact the basis of the mechanical method.

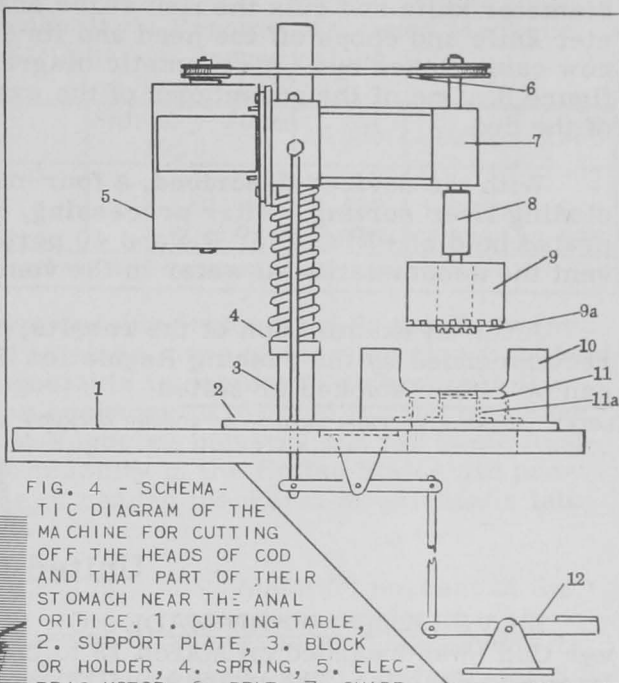


FIG. 4 - SCHEMATIC DIAGRAM OF THE MACHINE FOR CUTTING OFF THE HEADS OF COD AND THAT PART OF THEIR STOMACH NEAR THE ANAL ORIFICE. 1. CUTTING TABLE, 2. SUPPORT PLATE, 3. BLOCK OR HOLDER, 4. SPRING, 5. ELECTRIC MOTOR, 6. BELT, 7. GUIDE, 8. SHAFT, 9 & 9A. REMOVABLE CIRCULAR KNIVES FOR CUTTING THE HEAD OR STOMACH AROUND THE ANAL ORIFICE, 10. SUPPORT PLATE FOR FISH, 11 & 11A. FIXED KNIVES, 12. PEDAL.

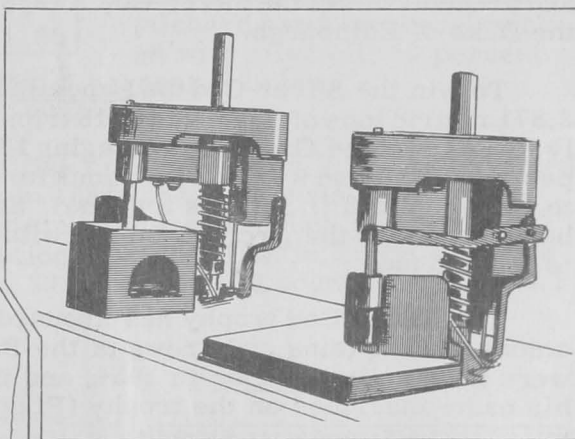


FIG. 5 - UNITS FOR CUTTING FISH: AT THE RIGHT THE MACHINE FOR CUTTING THE ANAL PORTION; AT THE LEFT, THE MACHINE FOR CUTTING THE HEAD.

The device used for cutting cod is analogous to a boring machine where the bit has been replaced by a circular knife. There are two units; the first has a small-diameter knife and cuts the fish at the anal orifice. The second has a large-diameter knife and chops off the head and its connections. The viscera are of course now easily taken out. A schematic diagram of this mechanical cutting is shown in figure 3. One of the advantages of the system is that it does not depend on the size of the cod.

With the devices described, a four-man team can process a vessel's fish, including liver sorting. After processing, the cod are washed and placed in a refrigerated hold of +7° C. (45° F.) and 40 percent ice. They are placed back up to prevent the accumulation of water in the ventral cavity.

After an examination of the results, the aforementioned method of cutting was recommended by the Fishing Regulation Board of Murmansk. Fish thus processed can be either smoked or salted

NOTE: TRANSLATED FROM FRENCH BY ROBERT DUCKWORTH.



United Kingdom

SILVER COD AWARD MADE FOR 1956: The British Trawlers' Federation "Silver Cod" was awarded on March 19 to the Captain and crew of the Hull deep-water trawler Lancella. The award was first made in 1954 by the Trawler's Federation as a means of encouraging the Captains and crews to land more fish. The guest of honor at the dinner and presentation of the Silver Cod award was the Duke of Edinburgh.

To win the Silver Cod the Lancella landed 2,871 metric tons of fish made in 18 trips mostly to Bear Island Grounds, averaging 18 days per trip. The fish were sold ex-dock for close to 5d. (about 5.8 U. S. cents a pound). Second honors went to the Arctic Warrior with close to 2,832 tons.



SILVER COD TROPHY

The Silver Cod trophy has aroused great interest and caused strong competition among the Captains and crews of the British distant-water fleet. Previous winners were the Arctic Warrior in 1954, and the Kirkella in 1955. The winning Captain has his name inscribed on the trophy (Fishing News, February 15, 1957).

NOTE: ALSO SEE COMMERCIAL FISHERIES REVIEW, JULY 1956, P. 89.



Yugoslavia

CANNED MACKEREL AND PILCHARD MARKET: Landings of mackerel and pilchard in Yugoslavia totaled 8,802 metric tons during 1955, or about 65 percent of the total catch of sea fish (table 1). The pack of canned mackerel and pilchard amounted to 4,298 tons in 1955 as compared with 5,016 tons in 1954. Yugoslavia exports a major part of its production of mackerel and pilchards.

Table 1 - Yugoslav's Landings and Pack of Mackerel and Pilchards, 1953-55

1955	1954	1953	1955	1954	1953
(Metric Tons)					
8,802	10,928	13,623	4,298	5,016	4,542

Exports of canned mackerel during 1955 totaled approximately 2,063 tons (excluding tuna) as compared with 918 tons in 1954 (table 2). Exports of canned pilchards showed a considerable decrease in 1955 with a total of 1,645 tons as compared with 2,623 tons in 1954.

Marketing prospects for United States canned mackerel in Yugoslavia are not promising, states a dispatch (January 11) from the United States Embassy in

Belgrade. Exports of canned fish are of considerable importance to the Yugoslav economy and exporters are doing their best to place more of the Yugoslav fish product on the world market. Furthermore, Yugoslavia is subject to a chronic dollar shortage and the majority of available dollar exchange is utilized for the purchase of machinery and other material essential to Yugoslav industry and for basic foodstuffs, such as wheat, which is the major commodity in the United States aid program to this country. There are no imports of canned mackerel or pilchards into Yugoslavia.

Table 2 - Yugoslav's Exports of Canned Mackerel and Pilchards, January-June 1956 and Years 1953-55

Product	January-June 1956	1955	1954	1953
 (Metric Tons)			
Mackerel ^{1/}	347	2,427	1,080	605
Pilchards	1,694	1,645	2,623	1,635

^{1/}Almost 15 percent of mackerel exports is actually canned tins.

Table 3 - Retail Prices for Canned Mackerel and Pilchards in Yugoslavia

Size of Can	Price per Can	
	Dinars	U. S. Cents
3.5 ounces	80-130	13-21
7.0 ounces	180-220	28-35
8.8 ounces	250-280	40-44
17.6 ounces	420-500	66-79
2.2 pounds	800-900	\$1.27-1.52

About 50 percent of the consumers prefer the 3.5-ounce can, 15 percent the 7-ounce can, 15 percent the 8.8-ounce can, 8 percent the 17.6-ounce can, and 12 percent the 2.2-pound can. About 35 percent of the consumers prefer pilchards and mackerel packed with olive oil, 50 percent

with seed oil, 10 percent with tomato sauce, and 5 percent in brine.

NOTE: VALUES CONVERTED AT THE SETTLEMENT RATE OF 632 DINARS EQUAL US\$1.

FISH CONSUMPTION: Fresh and canned fish consumption in Yugoslavia varied from 7,817 metric tons in 1955, to 8,386 tons in 1954, and 6,454 tons in 1953. In 1955 about 1,769 tons of the consumption consisted of canned, dried, and smoked fish. The average annual per capita consumption of canned fish in Yugoslavia was about 330 grams (11.6 pounds) in 1954/55 and 300 grams (10.6 pounds in 1953/54.)

