



International

FOOD AND AGRICULTURE ORGANIZATION

WORLD FISHING VESSEL CONGRESS TO BE HELD IN 1959: The second World Fishing Vessel Congress, organized by the Food and Agriculture Organization (FAO), Rome, Italy, will be held April 5-10, 1959, in Rome at FAO headquarters.

The Chief of the Fishing Boat Section, Fisheries Division, FAO, has been appointed Secretary, and the Agenda and Program are now being drawn up. It is expected that upwards of 300 participants will attend the Congress. These will be representatives of governments, naval architects, boat builders, and other people concerned with the design and construction of fishing boats.

The first International Fishing Boat Congress was organized by FAO in 1953 and joint meetings were held in Paris, France, and Miami, Fla. That Congress was outstandingly successful in pooling knowledge, experience, and ideas concerning fishing boat design and construction in all parts of the world, and the papers and discussions were published in a book, Fishing Boats of the World.

The forthcoming Congress will review the technical developments and progress made in fishing boat design and construction since 1953, and will carry further the international exchange of knowledge, experience, and ideas in this field. The discussions and papers of this Congress will also be published in book form.

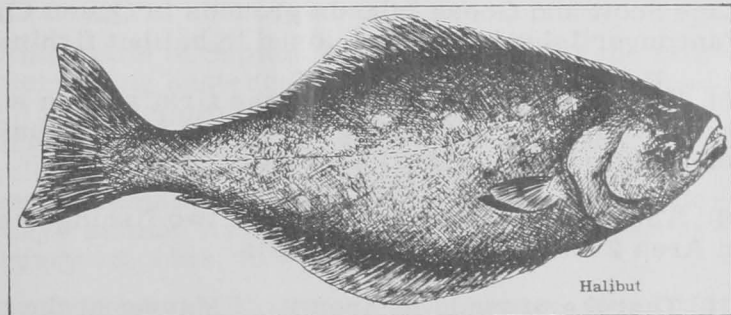
INTERNATIONAL PACIFIC HALIBUT COMMISSION

HALIBUT REGULATIONS FOR 1958: The International Pacific Halibut Commission has recommended to the United States and Canadian Governments that all halibut fishing areas except Area 3B shall be opened to halibut fishing May 4, 1958, and that Area 3B shall be opened to halibut fishing April 1, 1958.

It was also recommended that catch limits in Areas 2 and 3A remain unchanged from 1957, 26.5 million pounds and 30.0 million pounds, respectively. That there be two fishing seasons in Area 2, except that Cape Scott and Goose Island grounds be closed to fishing during the second season in Area 2.

As in 1957, there is to be only one fishing season in Area 3A.

The International Pacific Halibut Commission held its thirty-fourth annual meeting in Seattle the latter part of January. Chairman Richard Nelson of Vancouver, British Columbia, presided.



Other members of the Commission are Seton H. Thompson, Vice-Chairman, Mattias Madsen and J. W. Mendenhall, representing the United States; and Harold Helland and Dr. William M. Sprules, representing Canada.

In the course of its sessions the Commission conferred not only with its scientific staff, but also with representatives of the halibut fishermen's, vessel owners', and dealers' organizations, and with the Industry Advisory Group consisting of representatives of each of the foregoing segments of the industry, and with the Pacific Trollers Association of British Columbia. The scientific findings and all suggestions for regulations in 1958 were discussed at these meetings.

In light of the scientific findings and discussions with the industry, the Commission recommended to the two Governments the following regulations for the 1958 season:

(1) That the fishing areas shall be the same as in 1957. These are as follows:

- Area 1A - south of Heceta Head, Oregon.
- Area 1B - between Heceta Head and Willapa Bay, Wash.
- Area 2 - between Willapa Bay and Cape Spencer, Alaska.
- Area 3A - between Cape Spencer and Shumagin Islands.
- Area 3B - waters west of Area 3A, including Bering Sea.

(2) That the opening date for halibut fishing in all areas except Area 3B shall be at 6:00 a.m., May 4.

(3) That the opening date for halibut fishing in Area 3B shall be at 6:00 a.m. April 1.

(4) That in Area 1A there shall be one fishing season, without catch limit, extending from May 4 to 6:00 a.m. October 16 or to the closure of Area 3A, whichever is later.

(5) That in Area 3A there shall be one fishing season, with a catch limit of 30 million pounds, commencing on May 4 and terminating at the time of attainment of the catch limit.

(6) That in Area 3B there shall be one fishing season, without catch limit, extending from April 1 to October 16 or to the closure of Area 3A whichever is later.

(7) That in Area 2 there shall be two fishing seasons as in 1957, except that the Cape Scott and Goose Islands grounds in Queen Charlotte Sound at the north end of Vancouver Island shall be closed to halibut fishing during the second season only.

(8) That in Area 2 the catch in the first season shall be limited to 26.5 million pounds. The second fishing season in Area 2 shall begin at 6:00 a.m. August 31, for a period of 7 days without catch limit.

(9) That in Area 1B there shall be two fishing seasons, identical in duration to those in Area 2 and without catch limits.

(10) That the grounds in Area 2 off Masset at the north end of Queen Charlotte Islands and off Timbered Islet off the west coast of Prince of Wales Island in southeastern Alaska, which have been closed for a number of years as small fish grounds, shall be opened in 1958 only, to utilize an accumulation of large and old halibut which have been revealed in these areas by the Commission's experimental fishing.

Seton H. Thompson of Washington, D. C., was elected Chairman, and Dr. William A. Sprules of Ottawa, Canada, Vice Chairman for 1958.

The Halibut Commission is responsible to Canada and the United States for the investigation and regulation of the halibut fishery of the northern Pacific Ocean and Bering Sea. Its specific function is the development of the stocks of halibut to levels that will permit the maximum sustained yield, and its decisions regarding regulation are based upon the findings of its scientific staff.

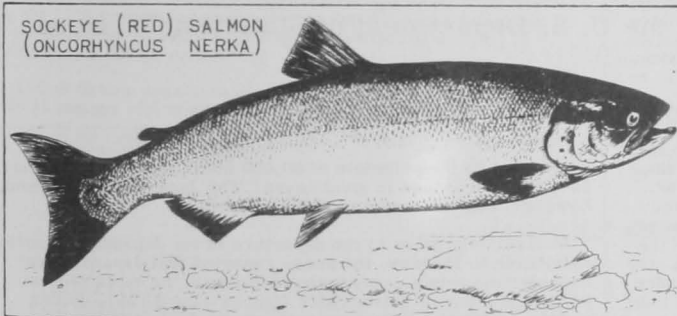
During the past 26 years of Commission management, there has been progressive improvement of the stocks and an increase in annual yield. The annual catch which had declined to 44 million pounds in 1931, the year before regulation, has averaged more than 65 million pounds during each of the past four years. The 1957 catch was worth over \$11 million ex-vessel.

Since in the past the United States and Canadian Governments have accepted the recommendations of the Commission without changes, it is fairly certain that the 1958 regulations will be approved by the two Governments as recommended by the Commission.

NOTE: ALSO SEE COMMERCIAL FISHERIES REVIEW, MARCH 1957, P. 36.

INTERNATIONAL PACIFIC SALMON FISHERIES COMMISSION

SOCKEYE SALMON REGULATIONS FOR 1958: The International Pacific Salmon Fisheries Commission met with its Advisory Committee on February 17, 1958, in Bellingham, Wash., for the purpose of considering and acting upon the tentative suggestions for regulatory control of the 1958 sockeye season originally submitted for consideration by the fishing industry on December 16, 1957.



Several objections were raised by individual members of the Advisory Committee to the proposed regulatory suggestions, some of which were objected to by other members of the Advisory Committee. The Commission carefully considered each and every suggestion for modifying the original regulatory

proposals. Recommendations for regulatory control of the 1958 sockeye fishery in Convention waters, representing several modifications based on suggestions of the Advisory Committee, were unanimously approved for submission to the Governments of Canada and the United States.

In respect to the suggested opening date of September 23, 1958, after the fall closure in Canadian Convention waters lying easterly of a line from William Head across Race Rocks to Angeles Point, the Commission stated that date will remain tentative subject to change depending upon the actual time that adequate escapement has been obtained. No further regulatory restrictions on sockeye fishing will be considered necessary after escapement requirements are met. The recommendations for regulatory control of sockeye salmon fishing in Convention waters as approved by the Commission on February 18, 1958, follow:

DIGEST OF RECOMMENDATIONS APPROVED FOR REGULATORY CONTROL OF SOCKEYE FISHING IN CONVENTION WATERS FOR 1958

United States Convention Waters:

1. West of Angeles Point - William Head line:
June 23 to 6:00 p.m.^{1/} August 10 - closed.
2. East of Angeles Point - William Head line:
June 23 to 4:00 a.m. July 21 - closed.
July 21 to August 10 - purse seines and reef nets open daily 4:00 a.m. to 8:00 p.m.

Monday through Wednesday; gill nets open daily 6:00 p.m. to 8:00 a.m. Monday afternoon to Thursday morning.

3. All United States Convention Waters: August 10 to August 17 - purse seines and reef nets open daily 4:00 a.m. to 8:00 p.m. Monday through Wednesday; gill nets open daily

^{1/}PACIFIC STANDARD TIME IN ALL CASES.

6:00 p.m. to 8:00 a.m. Sunday afternoon to Wednesday morning.

August 17 to September 14 - purse seines and reef nets open daily 4:00 a.m. to 8:00 p.m. Monday through Friday; gill nets open daily 6:00 p.m. to 8:00 a.m. Sunday afternoon to Friday morning.

4. Waters westerly of a line projected from the Iwerson Dock on Point Roberts in a straight line towards the Active Pass light to a point where said line intersects the International Boundary: August 31 to September 20 - closed.

Canadian Convention Waters:

1. West of William Head - Angeles Point line: June 23 to 5:00 p.m. August 9 - closed. August 9 to September 6 - purse seines open daily 5:00 a.m. to 5:00 p.m. Sunday through Friday; gill nets open daily 5:00 p.m. to 5:00 a.m. Saturday afternoon to Friday

morning; traps open 5:00 a.m. Sunday to 5:00 a.m. Saturday.

2. East of William Head - Angeles Point line: June 23 to August 17 - open 7:00 a.m. Monday to 7:00 a.m. Thursday.
3. Easterly of line from Point Grey to North Arm Jetty to Sand Heads light to Canoe Pass buoy true South to International Boundary: August 17 to September 14 - open 7:00 a.m. Monday to 7:00 a.m. Wednesday; September 14 to 7:00 a.m. September 23 - closed.
4. Westerly of line from Point Grey to North Arm Jetty to Sand Heads light to Canoe Pass buoy true South to International Boundary including Areas 17, 18, and portion of Area 19: August 17 to August 24 - open 7:00 a.m. Monday to 7:00 a.m. Wednesday; August 24 to September 14 - open 7:00 a.m. Monday to 7:00 a.m. Saturday; September 14 to 7:00 a.m. September 23 - closed.

INTERNATIONAL WHALING COMMISSION

INTERNATIONAL WHALING CONVENTION AMENDMENT RATIFIED BY NETHERLANDS: The protocol amending the International Whaling Convention of 1946, done in Washington on November 19, 1956, was ratified by Netherlands. Ratification was deposited on December 23, 1957, the U. S. Department of State announced on January 13, 1958.

JAPAN-RUSSIA FISHERIES NEGOTIATIONS FOR 1958

A large Japanese delegation headed by the chairman of the Japanese-Russian Fisheries Commission during the past year left Japan for Moscow on January 10, 1958, to attend the second annual meeting of that Commission in Moscow. The meeting that opened on January 12 was held in accordance with the 10-year Japanese-Russian Fisheries Convention signed in May 1956. Japan's official representatives to the meeting included the chairman and the Japanese Ambassador to Moscow. Other members of the Japanese delegation included 3 commissioners, 6 advisers, and 13 aids.

Based on press reports, Japan's major objectives at this meeting were to reach an agreement with the Soviets regarding the 1958 salmon catch quota, and related matters such as those on (1) length of the salmon season, (2) Soviet efforts to close Okhotsk Sea to Japanese fishing, (3) determination of fishing boundaries, and (4) the problem of safe fishing operations in Soviet coastal waters.

Salmon Catch 1958: Of immediate concern to the Japanese was the need to reach an agreement with Soviet representatives on Japan's salmon catch quota for 1958. Although the Japanese would like to establish a quota covering several years, the 10-year fisheries agreement with the Soviets provides for annual negotiation of the quota. According to the press, Japan seeks to obtain a quota of at least 140,000 to 150,000 metric tons of salmon to be caught in the Convention Area, as described in the 10-year agreement. This quota goal compares with Japan's 1957 quota of 120,000 metric tons and Japanese fishery industry demands for a 165,000-metric-ton quota.

It was expected that Japan would encounter considerable Soviet opposition to the above goal for 1958 because of the known Soviet position that the quota should be not more than 100,000 metric tons in good years and 80,000 metric tons in poor years. Japan's salmon quota for 1957 was met 20 days before the official closing date for the 1957 season, and it was anticipated that the Soviets would insist that since 1957 was a good year, 1958 will be a poor year, and that the quota should be reduced accordingly. Soviet representatives also were expected to maintain that previous talks with the Japanese prior to last year's negotiations had established Japanese delegation

agreement to the principle of 80,000 metric tons in poor years and 100,000 metric tons in good years. The Japanese Government, however, has not recognized this principle.

Immediately prior to the departure of the Japanese fisheries delegation to Moscow, the press reported that Japanese representatives would delay their decision on the quota request pending a study of Soviet catch figures during 1957. In this year's negotiations, Japanese representatives were unable to obtain prior information regarding the Soviet salmon catch. Last year, Japanese negotiators did have data on the 1956 Soviet salmon catch prior to their attending the meeting and were therefore better prepared to put forth Japanese quota demands based on conservation considerations.

Related closely to the quota problem is the alleged Soviet demands that Japan should limit its catch of the commercially-valuable red or sockeye salmon. Japanese fishery industry representatives are concerned over the possibility that the Soviets may request that a quota be placed specifically on Japan's catch of red salmon. Since Japan's catch of red salmon during 1957 accounted for about 40 percent of Japan's total catch of all species of salmon, any restrictions on the red salmon catch would have a direct impact on Japan's total salmon quota. Industry representatives appear to be firm in their insistence that no restrictions of any kind should be placed on Japan's catch of red salmon.

Length of Salmon Season: Japan's salmon fishing season during 1957 extended from about May to August 10. For the 1958 season, the press reports that Japan would request that the season be extended another ten days to August 20, 1958.

Soviet Efforts to Close Okhotsk Sea to Japanese Fishing: The press reports that the Soviets have been putting forth the claim that the Okhotsk Sea is Soviet waters, and that they wish to close these waters to Japanese fishing. In negotiating the 1957 quota, Japan was forced to reduce its fleet operation from the projected 5 to 2 fleets, and their salmon catch quota in these waters was limited to 13,000 metric tons. Japanese industry, as well as Japanese Government representatives, were expected to oppose strongly any effort by the Soviets to restrict further Japanese fishing in these waters.

Fishing Operation Boundaries: According to the press, Japan would continue to insist that high seas waters beyond 3 miles from land should be freely open to international navigation. Moreover, they insist that the water area from 3 miles to 12 miles from land should be open to small fishing vessel operations; and for salmon fishing, no restrictions should be placed on operations beyond 20 nautical miles from land. During the 1957 season, the Soviets enforced restrictions which required Japan to conduct its salmon fishing in waters beyond 40 nautical miles from the Soviet coast.

The general problem of fishing operation boundaries is of concern to Japan because for crab and cod fishing and for other types of fishing, other than salmon, Japanese fishing fleets must operate close to land. Japanese negotiators were expected to be fully conscious of the fact that any agreement on fishing operation boundaries with the Soviets would have a direct impact on the position to be taken by Japanese representatives to the Law of the Sea Conference, which was scheduled to open in Geneva on February 24, 1958.

Safe Fishing Operations: The problem of safe fishing operations involves chiefly the need to reach agreement as to areas where Japanese small fishing vessels can operate without fear of seizure by Soviet authorities. That is, the safe fishing operations question is concerned with coastal fishing in the area near Hokkaido and near Soviet-claimed territories. Japan was hopeful initially that this problem could be handled separately from the negotiations to arrive at a salmon quota, but press reports from Moscow which were quoted in the Japanese press indicated that Japan would be asked to discuss this question concurrently with the quota negotiations. The Japanese press has been expressing the opinion that the discussion of the two problems concurrently will strengthen the Soviet position in the negotiation for determining the salmon quota.

Russia's Program for Japanese Salmon Operations: Russia's program for Japanese high seas fishing operations during the 1958 season, as enunciated to the Japanese delegates at the Japanese-Russian Fisheries Commission meeting in Moscow in January, called for:

1. The fishing season to close earlier than in 1957, probably July 20 instead of August 10.

NOTE: ALSO SEE COMMERCIAL FISHERIES REVIEW, JUNE 1957, P. 37; MARCH 1957, P. 36; FEBRUARY 1957, P. 37.

2. High seas fishing vessels never to operate less than 40 miles from shore, as compared with 20 miles permitted in some areas in 1957.

3. All gillnets to be of larger mesh than heretofore.

4. Long-line salmon fishing to be prohibited voluntarily by Japan.

5. Fishing for both red and pink salmon must be controlled to permit increased escapement to streams in Soviet territory.

6. Serious decline of the pink runs to southwestern Kamchatka requires cessation of fishing for pinks in the Okhotsk Sea.

Two weeks after the opening of the Commission meeting Radio Moscow broadcast:

"Japanese representatives proposed a catch quota of 145,000 metric tons of salmon. We cannot help but think the Japanese are eluding the obligation they bear under the fishery treaty.

"Last year the Soviet side agreed to setting the quota at 120,000 metric tons--a great concession as a specific exception for 1957 alone, because the 1957 Commission meeting recognized that 1957 would be a big year for salmon.

"The proposition of the Japanese fishing companies to obtain tonnage such as they suggest is an unrealistic one, to speak frankly. The tonnage proposed is 65,000 tons more than the quantity fixed by the fishery convention for an off-year; and 25,000 tons more than the quantity agreed to for 1957, which was a big year.

"Newspapers of Japan assert there is no depletion of salmon resources because of the Japanese operations, but we cannot agree with this. Today's fishing techniques are capable of preventing a single fish from reaching a spawning stream. Salmon running back to their spawning systems are more and more curtailed in number because the Japanese have set long stretches of gear in the ocean in recent years.

"Unless the high-seas operation be strictly limited, the damage of the salmon resources of the Far East caused by the Japanese can never be repaired, no matter how earnestly the Soviet Union restricts its river fishing."

MARINE OILS

ESTIMATED WORLD PRODUCTION, 1957: World production of marine oils in 1957 was down almost 8 percent from 1956, a result of a 10-percent decline in fish-oil output and a decline of almost 30 percent in sperm oil. Whale-oil production in 1957 was slightly above the previous year.

Table 1 - Estimated World Production of Marine Oils, Annual 1950-57 and Averages 1935-39 and 1945-49

Type	1957 ^{1/}	1956	1955	1954	1953	1952	1951	1950	Average	
									1945-49	1935-39
(1,000 Short Tons)										
Whale	435	425	420	455	420	460	435	425	280	545
Sperm	90	125	100	75	55	85	120	55	40	30
Fish (including liver) . .	480	540	515	525	455	450	475	375	275	480
Total	1,005	1,090	1,035	1,055	930	995	1,030	855	595	1,055

^{1/}PRELIMINARY.

The increase in 1957 whale-oil output was the result of a higher oil yield per blue-whale unit taken in the Antarctic in the 1956/57 season. The number of units caught was fewer by 138 than in 1955/56, but the oil outturn per unit was over 1 ton larger in 1956/57. The catch exceeded the internationally-agreed limit of 14,500 blue-whale units by 237. The 1957/58 catch limit has again been set at 14,500 units.

Sperm oil production in 1957 was down sharply due to a poor sperm-whale catch by expeditions in the Antarctic. Production by shore-based sperm whaling operations increased slightly from 1956.

Fish-oil production in 1957 was down sharply as a result of sizable declines in the output of the United States and Norway. Production in the United States was down about one-fifth in the January-October period of 1957 as compared with the first 10 months of 1956. Norwegian output was down about one-third from 1956 because the winter herring catch declined.

NOTE: ALSO SEE COMMERCIAL FISHERIES REVIEW, MARCH 1957, P. 38.

TRADE AGREEMENTS

BRITISH-JAPANESE TRADE TALKS INCLUDE CANNED SALMON: Negotiations between Japanese and British trade delegations opened in London in February 1958, to discuss renewal of the trade agreement which expires on March 31, 1958. Informed observers predict that little change will be made in the existing agreement.

The Japanese are hopeful of increasing their imports to Britain to about US\$89.6 million in order to bring the foreign trade between the two countries more into balance. It is believed that the Japanese will press for substantial increases in the quota for canned salmon and trout. The Japanese canned fish industry is exerting pressure on their trade delegation to increase the canned fish quota to US\$21 million, up about US\$7 million from the current figure.



Argentina

NEW SHRIMP PROCESSING PLANT ESTABLISHED: The shrimp processing plant located at Rawson, Patagonia, and established with United States capital, was reported about ready to begin operations, according to a January 27, 1958, dispatch from the United States Embassy in Mexico City. The plant, according to the report, is the first one in Argentina that is modern in all respects. It will have a capacity of 25,000 pounds of headless shrimp a day. The power for the plant will be supplied by steam generated from natural gas fuel.

The frozen shrimp (*Hymenopenaeus mulleri*) will be transported to Buenos Aires in refrigerated trucks for the local market or for export to the United States.



Brazil

NEW FISH TERMINAL OPENED AT SANTOS: The new fish terminal at Santos, Brazil, was officially opened by the President of Brazil on January 23, 1958. The construction of the fish terminal was started in 1949 and the cost of the pier, cold-storage warehouse, and ice-making equipment was close to US\$1 million. The terminal has four electric compressors capable of producing 100 tons of ice daily and a storage capacity for 70 tons of ice. The building also has seven cold-storage compartments with a capacity of 500 tons of fish. The terminal building is connected with the landing pier which has dock space for 4-5 large vessels or 15 small vessels.

The pier, cold-storage warehouse, and installation of equipment was completed several months ago, but adequate water, power, and sewage facilities were incomplete. These facilities are now available. Waste products will be flushed into the

harbor. The new terminal is spacious with good facilities for cleaning and processing the catches. Future plans call for machinery to process fishery byproducts.

At the official opening of the terminal, the temperature in the cold-storage rooms was brought to zero, but actual operation of the plant was expected to take place early in February. At the official opening two Japanese fishing vessels were docked at the pier, but it is believed that the Japanese do not intend to use the new facilities.

In his address to the fishermen's association, the President commented that the new terminal was a big step forward in the five-year plan to improve the Brazilian economy, the United States Consulate at Sao Paulo reports in dispatches dated January 27 and 29, 1958.



Chile

DECREEES REGULATING GERMAN VESSELS FISHING IN CHILEAN WATERS:

In two decrees issued on January 3, 1958, the Chilean Ministry of Agriculture extended for one year the authorization for certain German fishing vessels to fish in Chilean waters. The decrees identify the vessels involved, define the authorization in each case, and state the conditions under which permission is granted. The principal features of the two decrees are:

- (1) The interested firm must pay a 100,000 peso (about US\$147) fee for each foreign vessel granted this authorization;
- (2) Purchase from other fishermen of fish on the high seas in Chilean territorial waters is expressly forbidden;
- (3) The entire catch must be brought to a Chilean port and made available for the use of the domestic industry;
- (4) Any information requested by the Ministry of Agriculture from the person receiving the authorization must be provided;
- (5) Authorized inspectors must be permitted to board the vessels; and
- (6) The authorization is not renewable. The vessels must be naturalized at the termination of the period specified or return abroad (United States Embassy in Santiago, February 5, 1958).

NOTE: CHILEAN PESO CONVERTED AT RATE OF 678 PESOS EQUAL US\$1.



Cuba

JAPANESE FISHING VESSEL LANDS GOOD TUNA TRIP: The Japanese fishing vessel Sumiyoshi Maru, engaged in a joint Cuban-Japanese fishing venture, landed 307 tons of fish (mostly tuna) at Habana on December 3, 1957. The trip lasted 61 days and was the first training cruise for Cuban fishermen, under the agreement made between the Cuban Government and the Japanese firm now operating in Cuba.

After unloading the catch, the Sumiyoshi Maru left Habana with an additional five Cuban trainees aboard to learn Japanese fishing methods under actual fishing conditions. (United States Embassy in Habana, dispatch dated January 30, 1958.)

Denmark

LAUNCE (SAND EEL) FISHERY: The Danish launce (sand eel) fishery has mushroomed in a few years to startling proportions. In 1956 the fishery yielded almost 88,000 metric tons of launce.

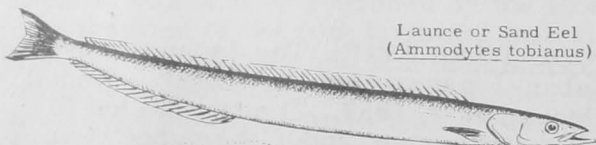
While only two years ago the launce fishery, which is mainly carried on from Esbjerg, was restricted to coastal waters, it is now carried on as far out to sea as 50 nautical miles from the British coast and Esbjerg fishermen are continually discovering new fishing grounds while chasing the lively shoals of this fish.

Unofficial statistics of the landings of launce (*Ammodytes tobianus*) at Esbjerg since the fishery began give an impression of an almost explosive development.

The first launce catches were made in 1953, although only in the following year did the fishery really get under way, and in 1954 Esbjerg's five fish-meal factories received about 9,000 tons of launce. In 1955 deliveries rose to 35,000 tons and this progress was continued in 1956, when the total catch reached 65,000 tons. The total Danish catch rose from 10,557 tons in 1954 to 41,831 tons in 1955 and in 1956 the figure was 87,576 tons in all. Since the fishery began, altogether 148,604 tons of launce have been landed.

The fishery was founded when Esbjerg cutters, which hitherto had only caught herring for the fish meal factories, went out on a trial fishery on the coastal banks in an attempt to fill in the gap in supplies between the winter and summer herring fisheries. Until last year the fishery was carried on in shallow waters just offshore, especially in the Hornreef (Hornrevet) area a few hours steaming from Esbjerg. The fleet caught appreciable amounts of launce here and the boats used to manage to sail out early in the morning and be back home in the evening with a full hold, i.e. 40-50 tons. The offshore fishing grounds, however, were unable to support this intensive fishing and the Esbjerg boats next explored the more distant grounds to net their fill of the rich stocks of launce in the North Sea when the winter herring disappeared.

The major strike resulting from the labor troubles of the spring of 1956 was an indirect cause of a new herring and launce fishery in the Silver Pits area south of the Dogger Bank, for the first fishing boats which were maintaining the export of iced boxed fish to England during the merchant seamen's strike, registered heavy herring traces on their way home and, on making trial hauls, they made such heavy catches that they were able fill up their holds in a couple of days. Later large quantities of launce were found to occur in the same area.



Launce or Sand Eel
(*Ammodytes tobianus*)

The launce fishery is now carried on from Esbjerg in the period March-April until the end of July. The Silver Pits area is fished from March-April up to about June 1 and the offshore areas during the

rest of the season, because launce do not keep fresh long enough for the long voyage to and from the Silver Pits grounds once the heat of the summer has set in.

During the trial fishery in the Silver Pits area enormous quantities of launce were found to be present; since then Esbjerg fishermen have discovered many other, equally rich, fishing grounds to the southward of this area. In the middle of May, for instance, a boat found launce on the Indefatigable Banks only 50 or so miles off the English coast, and 10 or more boats filled up on this ground after only a day and a half's fishing.

The fishery for launce out at sea has begun earlier and earlier each year. In 1957 the season's first launce catches were made as early as March. The most frequented fishing grounds are Southernmost Rough, S. W. Spit, Outer Well Bank, Markhams Hole, and the Indefatigable Banks. A trip to these grounds normally takes a week. About 2-3 days only are spent fishing, the rest of the week is taken up in the journey to and from the grounds.

The Esbjerg fishermen believe that it is current and temperature conditions which determine the great concentrations of launce in the Silver Pits area. The fishermen have noticed that the launce can completely disappear during the middle of the day, only to reappear in the evening in such quantity that a boat can fill up in the course of half an hour's fishing.

Launce are caught in a trawl in the same way as herring, though the bag has a 6-mm. (0.2-inch) mesh, and the fishery takes place on a coarse, almost stony, bottom in 13-18 fathoms, exceptionally in shallower water. The launce is usually found along the edge of the banks at the junction of deep and shallow water and the trawl towing time varies, with the concentration of fish, from 15-20 minutes up to 2 hours. It can happen that boats simply split the trawl when the fish occur in large densely-packed shoals and the trawl is towed too long.

About 400 Danish vessels take part in the fishery in the North Sea of which about 250 are from Esbjerg, the rest from Skagen, Hirtshals, Thyborn, and Hundested. By far the greater part of the catches are landed for the Esbjerg fish meal factories, amongst which the fishermen's own factory, the Co-operative Herring-Oil Factory is the most modern and largest in Scandinavia. It can handle about 1,500 tons of launce in a 24-hour period and its machinery represents a capital value of about 7 million Danish kroner (US\$1.0 million).

The herring and launce meal produced in Esbjerg is of an unusually fine quality and is exported at a stable and good price to the United States, Holland, England, the Philippines, Venezuela, etc. In 1956, when the Co-operative Herring-Oil Factory exported herring and launce meal to the value of 21 million Danish kroner (US\$3.0 million), England was the chief recipient. The meal is used for poultry and hog feeding.

About 90 percent of the factory's yearly production of meal has hitherto been exported, but in recent years sales on the home market have increased considerably, by 50 percent from 1955 to 1956, and 40 percent of the factory's production in May 1957 went on the home market. The oil is sold to England, Sweden, and Germany, as well as on the home market.

Esbjerg fishermen, who up to 1956 had been the sole catchers of launce in the North Sea, were in 1957 joined by both German and Norwegian boats. From the German side about 100 boats take part in the fishery, while the Norwegians have 10 or so trawlers and the factoryship Havkvern fishing for launce in the North Sea. Havkvern, a short time

ago, landed in Bergen about 90 tons of meal and 40 tons of oil after the season's first trip in 1957.

Launce sell from 18-20 øre per kilo, (1.2-1.3 U. S. cents a pound), depending on the quality of the fish. The net profit on a cargo of launce of about 40-50 tons is about 7,000-9,000 Danish kroner (US\$1,014-1,303), of which a half goes in covering the fishing costs (Diesel oil, fuel, and gear), while the other half is divided between the four-man crew. The great increase in price of fuel after the Suez crisis and the long steaming time to and from the fishing grounds made the launce fishery less profitable for the fleet in 1957 than in previous years. (World Fishing, September 1957.)



German Federal Republic

NEW PUMP FOR CONVEYING FISH WASTE THROUGH PIPELINES: A pump for the disposal of fish waste has been developed by German engineer (C. Keysler) specializing in whaling stations and other machinery connected with the fishing industry.

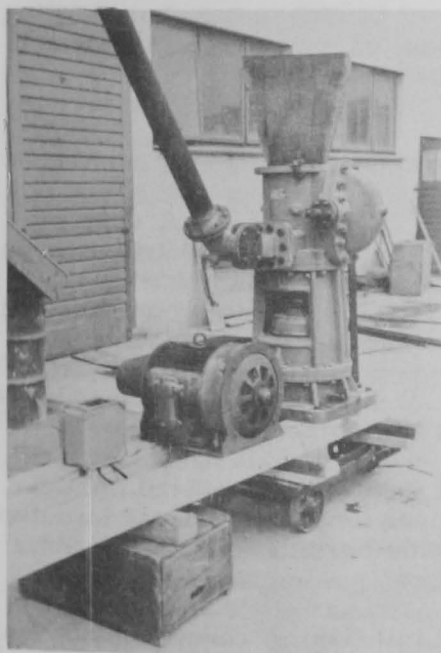


FIG. 1 - CLOSE UP OF THE NEW PUMP USED FOR CONVEYING FISH WASTE OVER LONG DISTANCES THROUGH PIPELINES.

original state. If the feeding through the pipeline is discontinued, e.g., because of lack of material, water is flushed through in order to clear the pipeline. Altitudinal differences up to 90 feet can be overcome. The tryouts using fat fish waste have been completely successful, but experiments in handling waste from large lean fish, which must first be cut up, are still in progress.

According to the engineer, tests recently carried out at Cuxhaven on fat fish waste have proved successfully that it is possible to convey fish waste over long distances through pipelines by use of the new pump. It is at present customary to convey offal accumulating at filleting tables or herring beheading machines via belts, worms, etc., to so-called offal wagons which are then hauled to the fish meal factories by tractors. Utilization of the new pump is said to effect not only savings in transportation costs but also a much cleaner and more odorless removal.

The capacity of the pump is between 10 and 50 metric tons an hour, depending on the size. The waste is pumped through the pipes without water, being flushed through by the material itself in its



FIG. 2 - SHOWS WASTE BEING DISCHARGED BY PIPELINE INTO TRUCK.

The price of the pump ranges from about US\$1,900 to \$4,050, according to size, and the pipeline costs approximately \$6.00 to \$7.00 per meter (3.28 feet). Used or already existing pipelines can be utilized without difficulty.

The pump is already being produced commercially under the engineer's specifications by a firm located at Iserlohn, Westphalia.



Greece

SPONGE PRODUCTION, 1954-57: Production of sponges by Greek sponge fishermen during the 1957 season amounted to 254,191 pounds (about 115.3 metric tons), an increase of about 7.0 percent over the 237,655 pounds in 1956. The value of the 1957 sponge production was about US\$1.6 million (48 million drachmas). The Greek take of sponges in the older sponge fishing areas (Greek waters, Cyrenaica, and Tripoli) was lower by about 17.8 percent as compared with the previous year. The production from the newer area off the Egyptian coast of 45,194 pounds helped to raise the total in 1957 above that for 1956. The production of sponges in both 1957 and 1956 was below the 297,621 pounds reported for 1955 and the 286,598 pounds in 1954.



Guatemala

JAPANESE-Guatemalan FISHING COMPANY PROPOSED: A delegation from Japan headed by the Governor of Chiba Prefecture arrived in Guatemala during January 1958 for the purpose of exploring the possibility of the creation of a joint Japanese-Guatemalan fishing company. It was reported that this company will be similar to the Japanese-Venezuelan company established in Venezuela.

The delegation had an interview with the Minister of Economy to exchange ideas on the form in which the fishing company will function in Guatemala.

The Japanese delegation also has had discussions with officials of the Guatemalan Development Institution (INFOP), with the National Council of Private Initiative (Consejo Nacional de la Iniciativa Privada), and with Members of Chamber of Industry of Guatemala (Camara de Industriales).

It is the intention of Japanese industrialists to exploit fishing resources on both the Atlantic and Pacific coasts.

The amount of capital to be invested, the type of craft, and other equipment to be used is not known, states a January 31, 1958, dispatch from the United States Embassy in Guatemala.



Haiti

TUNA FISHERY SUGGESTED BY FAO EXPERT: The possibility of establishing a tuna fishery in Haiti was suggested by a Food and Agriculture Organization (FAO) expert upon his return to Rome, Italy, after an 18-month study of the sea fisheries resources of that country. The FAO fisheries officer had been detailed to the Haitian Government since 1955.

After investigation and experimental fishing in the coastal waters, the FAO expert states: "Cuba has developed a very profitable tuna industry and as it is, so to speak, next door to Haiti, I thought it likely there would be tuna around Haiti. This proved to be the case and we found tuna in commercial quantities off both the south and north coasts.

"The Government agreed with our proposal to charter a Cuban tuna vessel, manned by a few Cuban fishermen so that we could carry out experimental fishing and, at the same time, train some Haitian fishermen in tuna fishing techniques. We caught good quantities of excellent tuna, which showed that it should be possible to establish a small tuna fishery in the north, where the climate is suitable for sun-drying the fish, and a bigger fishery in the south where, because of climatic conditions, it would be necessary to build a cannery for processing the fish at the height of the season."

His report states that suitable bait fish were found in the inshore waters and demonstrated how they should be captured and held aboard a tuna vessel and used to "chum" the tuna.

At mole St. Nicolas, from where the chartered Cuban vessel operated, the FAO expert carried out experiments in salting and drying tuna. The fish were gutted, split, salted, and prepared for sun-drying. At night they were placed in a palm-thatched drying shelter so that they did not absorb moisture. The dried and cured fish were then packed and dispatched to Port-au-Prince and other markets. Experiments were also made in gutting and icing the fish and selling it fresh.

These experiments showed there was a ready consumer acceptance of what was virtually a new product in Haiti.

It is hoped that the work of this FAO expert will eventually lead to the development of a commercial tuna fishing industry with a profitable export trade, possibly with the help of foreign capital investments. As another FAO contribution towards such development, the naval architects of the FAO Fisheries Division have prepared a design, with preliminary specifications, of a 45-foot tuna fishing vessel.

The FAO fisheries officer has returned to Haiti with this design to continue his assignment. In addition to helping the Haitian Government develop a tuna fishing industry, he will work among the small boat fishermen.

His plans for small boat fishermen include help to mechanize their boats, teaching them to use improved gear and equipment and, by these means, demonstrating how they can catch more fish. (The Caribbean, December 1957.)

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FISHERIES POTENTIAL PROMISING: Following a survey of the Haitian fisheries by a Food and Agricultural Organization (FAO) fisheries expert, the Director of the Haitian Office of Fisheries commented on the opportunities in Haiti to invest in commercial fishing enterprises. During the survey by the FAO fisheries officer, a Cuban bonito fishing vessel was chartered by the Haitian Government for four months. Three months were spent in surveying the offshore coastal area for fish schools, observing bait supplies in inshore waters, and their relationship to good harbors. The final month of the charter was spent in fishing on a commercial basis and this part of the survey led to the conclusion that a reasonably profitable fishery could be established.

This conclusion was based on the following estimates:

1. Use of 3 Cuban-type bonito fishing vessels with crews consisting of a captain, engineer, and 8 fishermen.

2. An initial investment of US\$95,000 for working capital for the first year.
3. An estimated annual catch of 570,000 pounds of fish to be dried and sold at 19 U. S. cents a pound.

Based on the above estimates, a yearly profit of 16 percent could be expected on the investment. If a fourth vessel was employed, the profit could be increased to 22 percent.

Due to the fact that Haiti imports close to 18 million pounds of dried or salted fish yearly, the Government is anxious to develop domestic sources of fishery products, states a December 17, 1957, dispatch from the United States Embassy in Port-au-Prince.



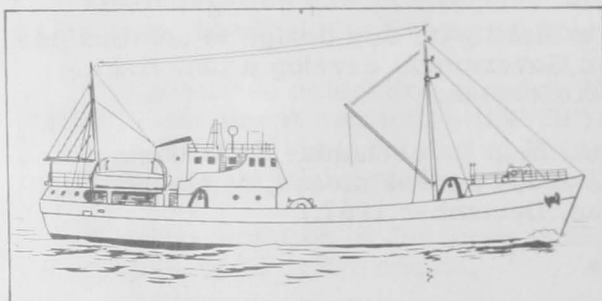
MULTIPURPOSE TRAWLERS ORDERED FROM EAST GERMANY: The Icelandic Government has signed a contract with a shipbuilding firm in East Germany for 12 multipurpose fishing vessels of 250 British registered tons, the November 22, 1957, Fishing News reports.

This contract is a continuation of the trend in having vessels built in East Germany where there is a ready market for quick-frozen fish.

The size and equipment of the vessels are in many ways novelties in Icelandic fisheries. Until now trawlers of 250 tons have been unknown in the fleet. Seiners and line-boats, also used in the deep-sea herring fisheries, have not usually been of more than 100 tons. Trawlers built since the war have not been under 500 tons.

The decision to build a 250-ton vessel is the result of different desires on the part of fishing vessel owners--to have larger vessels for deep-sea herring and yet have smaller trawlers.

Two Icelandic shipowners with the greatest interest in acquiring the smaller boats did so for entirely different rea-



A SCALE DRAWING OF THE NEW 250-TON FISHING SHIPS.

sons. One living on the east coast had an interest in deep-sea herring fisheries between Iceland and the Faroes. The other, living on the northwest coast, wanted a light trawler to trawl just outside the fishing limits in that area where it has been noticed that the smaller British trawlers have operated with more success than their larger counterparts.

Another reason for the interest is that the 250-ton vessels will be able to go line-fishing on the west coast of Greenland unlike the 100-ton vessels.

Yet another factor is the increasing amount of trawling and fishing done to serve the quick-freezing plants scattered along the coast. Large trawlers have proved rather uneconomical when employed in this field and there is a likelihood that smaller vessels could load more quickly and land fresher fish.

Smaller fishing villages around the Icelandic coast have neither the facilities nor manpower to handle a large trawler. The harbors are often too small and their freezing plants are not capable of handling a large trawler's catch.

The 110-foot 6-inch trawlers now under construction at Stralsund, East Germany, were designed by an Icelander, who has tried to combine speed with seaworthiness. They have soft bows, cruiser sterns, a beam of just under 24 feet, and a depth of about 11 feet 6 inches.

They will be made of steel, electrically welded. The top and sides of the wheelhouse will be aluminum.

The main deck will be steel completely but laid with timber, while the forward one of the two steel masts will be of tripod design, equipped with a three-ton derrick for general purposes, as well as derricks for trawling.

The main engine will be of 800-horsepower at 375 r.p.m. Two auxiliary engines are one of an East German make developing 120-horsepower and the other a West German make developing 220-horse power at 1,500 r.p.m. The trawl winch which will be supplied by a West German firm is electrically powered.

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RUMOR OF PROPOSED USE OF POLISH CREWS FOR FISHING TRAWLERS UNSUBSTANTIATED: The report in the article "Polish Crews for Fishing Trawlers Proposed" published in the December 1957 issue of Commercial Fisheries Review (p. 62) has not been substantiated, according to information received in a dispatch from the United States Embassy in Reykjavik, dated February 14, 1958. Information supplied by the Managing Director of the Icelandic Trawler Owners Association indicates that his association had never sanctioned such a proposal. He also stated that although there is a shortage of crewmen for trawlers in Iceland, that the figure given (3,000) in the above article was about double the actual figure.

The shortage will be met in 1958, as in the past, by the importation of crews from the Faroe Islands.

The Icelandic Director of Fisheries stated that the rumor concerning the employment of Polish crews probably came from talks with crew members of a Polish trawler that had visited Iceland and later stopped at Grimsby, England.



Japan

CERTAIN JAPANESE-RUSSIAN UNSOLVED ISSUES AFFECT JAPANESE FISHERIES: Japan resumed diplomatic relations with the Soviet Union in December 1956 when the Japanese-Soviet Joint Declaration went into effect. Some questions between the two countries have been satisfactorily or partially settled during the past year, but problems still remain in connection with fisheries and repatriation. Other unsolved issues are frequent Soviet seizures of Japanese fishing vessels, the Japanese proposal made in June for talks on safe navigation in nearby waters, and the Soviet declaration in July claiming Peter the Great Bay as internal territorial waters.

Fisheries Question: This problem is of deep concern to the Japanese people in view of their reliance on marine resources as their principal source of protein. It is one of the basic issues in the diplomatic relations between Japan and the Soviet Union.

On May 14, 1956, a Japanese-Soviet Fisheries Pact was signed in Moscow for the purpose of restricting fishing in the open seas and in the Northwest Pacific. The first session of the Japanese-Soviet Fisheries Commission was held in Tokyo from February 15 to April 6 on the basis of Article III of the above Agreement.

The most important task of the Commission was to decide on the volume of salmon catch. The question was, however, eventually settled politically outside the Commission.

The Japanese side initially proposed that for the time being the salmon catch should be set at 165,000 tons in good years for the next four years beginning in 1957 and 135,000 tons in poor years.

The Soviet side, however, made a statement to the effect that indiscriminate offshore fishing by Japan and catching of not fully-grown fish had caused a rapid diminishing of salmon resources. Therefore, it was said the Soviet Union could not agree to the Japanese proposal for an increase in the volume of fish catch.

The Japanese side, basing its argument on various statistical data concerning salmon catches in the past, countered that salmon resources were not diminishing.

Since Japan and the Soviet Union continued their arguments without either side possessing complete scientific and statistical data of a conclusive nature, the prospects for settling the problem within the Commission became extremely difficult.

Finally the Japanese Prime Minister conducted talks with the Soviet Ambassador. The Prime Minister pointed out that the problem of settling the volume of salmon catch was the first issue to be taken up following the normalization of relations between Japan and the Soviet Union. He stressed that in view of its vital significance to the development of future relations between the two nations, he desired that the Soviet side consider the matter from a broad viewpoint.

As a result, the Soviet Ambassador agreed on a salmon catch of 13,000 tons by two fishing fleets in the Okhotsk Sea and a total catch of 120,000 tons only for 1957, which was considered a good year.

The Commission, aside from the aforementioned volume of salmon catch, also agreed on measures for conservation of red salmon resources; a prohibited fishing area for salmon within 40 miles offshore; a limit to mixed catches of young herring, female crabs, and young crabs. Agreement was also reached on the laying of crab nets, compilation of scientific surveys, and statistics and exchange of data.

These matters were adopted in the form of minutes of the first session of the Commission, ending the two-month long fisheries talks. However, many problems--the foremost of which is the decision on the fish catch for 1958--were carried over to the second session of the Commission which meets in Moscow in January 1958.

Seizure of Fishing Vessels: The Japanese side on a number of occasions after February 1957 requested the Soviet Union to return seized Japanese fishing vessels and release detained Japanese fishermen.

In response, the Soviet side carried out an amnesty for 28 fishermen in October, but as of December 21, 1957, they still had 113 Japanese fishing vessels and 3 fishermen under detention.

Negotiations for Safe Operations in Waters Adjacent to Northern Hokkaido: The aforementioned seizures can be attributed principally to the considerable narrowing of the operational area for Japanese fishermen in the North Pacific and also to the continuing disagreement between Japan and the Soviet Union on the question of territorial waters.

In order to prevent such seizures and assure safe operations in this area, the Japanese Government asked the Soviet Union on June 3 to recognize the freedom of Japanese small fishermen, based

on the coast of Hokkaido, to engage in small-scale fishing operations and kelp-gathering in the areas within 12 miles off the shores of Habomai, Shikotan, Kunashir, Etorofu, and the Kurile Archipelago. This was requested, apart from the question of territorial waters, for the purpose of settling the problem of seizure of Japanese fishing vessels and also from the humanistic standpoint of assuring the livelihood of small fisherfolk in the area.

The Soviet Government replied on August 16 that it was willing to enter into negotiations on this question. The Japanese Government, therefore, drafted a provisional agreement on the problem and presented it to the Soviet Government on August 29, but there has not yet been a satisfactory reply.

Peter the Great Bay: Following the publication of a report in *Izvestia*, organ of the Soviet Government, that the U.S.S.R. Council of Ministers had decided to place Peter the Great Bay within its territorial waters, the Japanese Government on July 26 made the following protest to the Soviet Union:

"It is clear from the standpoint of international law that the aforementioned area does not possess the requirements of internal territorial waters. The Soviet action contravenes the general principles of international law and is illegal. The said

area, in particular, is a traditional fishing ground of the Japanese people, and the latest Soviet decision illegally infringes upon the Japanese people's freedom of fishing and navigation."

The Soviet side replied that it considered the said waters a bay belonging historically to the U.S.S.R.

Thereupon, the Japanese Government sent a protest to the Soviet Union on August 6, in which it pointed out that the Soviet Union had never claimed the said waters as being historically a bay of the U.S.S.R. in the past. It said the only reason the Soviet Union gave in May 1957 in seeking the withdrawal of Japanese drag net trawling vessels from the said bay area was the danger from explosion of mines still remaining at the bottom of the sea. Since the Soviet Union had never said anything in the past about Peter the Great Bay being historically a bay of the U.S.S.R., the said area did not possess the requirement under internationally approved long-term practice for recognition as such, the Japanese protest pointed out.

The Soviet Union, however, merely repeated its previous contentions. (Japan Report, February 1, 1958, issued by the Embassy of Japan, Washington, D. C.)

* * * * *

EXPORT REGULATIONS FOR CANNED TUNA IN OIL TIGHTENED: Diversion of Japan's canned tuna in oil to the United States through third countries prior to September 1957 may have occurred in part because of a loophole in Japanese Ministry of International Trade and Industry (MITI) regulations, which limited the meaning of the term "United States" to include only the 48 States, Hawaii, and Alaska. This definition was expanded after September 1 to include other areas falling under United States jurisdiction, which could be made a point of transshipment for Japan's exported canned tuna in oil.

To reduce diversion of Japanese canned tuna in oil to the United States through selected third countries, MITI since November 1, 1957, has required exporters to submit to that Ministry certificates of landings for canned tuna in oil destined for countries of Central and South America, Canada, Belgium, and Holland. This requirement will not stop re-exports to the United States by countries of destination but, if the above requirement is observed, it will stop transshipments, and make diversion of exports to the United States more difficult and expensive.

A comparison of Japan's canned tuna in oil export figures for January-July 1957 with the same period for 1956 shows that Japan's exports to nearly all destinations in Europe and the Near East increased during 1957. Significant increases were registered in exports to West Germany, Switzerland, Italy, Egypt, Lebanon, and the United Kingdom. Japan's exports to Canada and to areas not specified also rose sharply during January-July 1957.

According to the Ministry of Foreign Affairs, Japan will be shipping to the Philippines 20,000 cases of canned tuna in oil at a price per standard case (48 7-oz. cans) of US\$6.67. The agreement called for this shipment to be made in November 1957.

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NEGOTIATIONS WITH U. S. S. R. ON 1958 SALMON FISHING QUOTA STALE-
MATED: On the basis of early February 1958 Japanese press and industry reports,
 no appreciable progress has been made since the opening of the second annual meet-
 ing of the Japanese-Soviet Fisheries Commission in Moscow on January 13 toward
 an agreement regarding Japan's North Pacific salmon catch quota for the 1958 sea-
 son.

Japan's 1958 requests for (1) a 145,000-metric ton salmon quota, (2) the exten-
 sion of the salmon catch season by 10 days to August 20, (3) the expansion of fish-
 ing areas, and (4) the acceptance of the principle that no limitations be placed on
 specific species of salmon have been rejected either directly or indirectly by Soviet
 counter-requests, the latest of which repeated previous Soviet demands for quotas
 on individual species within the over-all quota.

The suggested subquota for sockeye or red salmon (10 percent of the total quota)
 drew headlines in the Japanese press, which described it as "shocking." The press,
 quoting the Minister of Agriculture, Forestry and Fisheries, states that the Japa-
 nese Government believes that the current talks will reach a deadlock about mid-
 March and that it will be necessary for Japan to send a delegate of ministerial rank
 at that time to bring the talks to an end.

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TUNA FISHERIES TRENDS, JANUARY 1958: Indian Ocean Fishing: On the
 morning of January 8 the Japanese mothership-type tuna boat No. 21 Kuroshio Maru,
 the largest in Japan (1,914 tons), with a crew of 124 men, returned to the port of
 Kurihama from a 5-month cruise to the Indian Ocean, bringing back a full load of
 1,365 tons of fish worth about 100 million yen (US\$277,000).

The ship sailed from Kurihama on August 20 and worked mostly around the
 Seychelles and Madagascar in the Indian Ocean, fishing 60 sets of long lines and
 setting a record average catch per set of nearly 23 tons to exceed her original tar-
 get catch by 248 tons. The catch was all landed frozen; the albacore and yellowfin
 will be exported to the United States to earn foreign exchange, while the spearfishes
 will be canned or made into sausage.

Tuna in Coastal Waters: With the advent of cold weather, large schools of tuna
 appeared off Choshi in Chiba Prefecture, and landings at the Choshi market from
 January 5-8 were 248 tons of big-eyed tuna. These tuna were warm-water fish, and
 as the cold current spread out to about 30 miles off Choshi, the schools migrated
 along the boundary of the warm and cold currents seeking food. They were tuna of
 122 to 165 pounds each.

Winter Albacore: The first boat of the winter tuna season, the 72-ton Tsuneyo-
shi Maru of Kushikino in Kagoshima Prefecture, landed 12½ tons of tuna at Shimizu
 on January 15. The catch comprised principally 444 large albacore weighing about
 37 pounds each, with some big-eyed and small yellowfin. As the albacore were bid
 on by both fresh fish buyers and freezers, the price was unexpectedly high, over
 1.8 cents a pound for the albacore, and with the big-eyed added in, the average was
 over 15 cents a pound. The vessel had fished long lines on 14 sets about 150-200
 miles off Katsuura in Wakayama Prefecture. There are said to be about 50 boats
 of similar type fishing the same grounds. In the past boats from Shizuoka Prefec-
 ture also fished this ground, but this year not a single boat from this prefecture
 worked there. Albacore and big-eyed fishing on 34° N. was done exclusively by the
 boats from Kagoshima and Kochi prefectures.

In this connection the fisheries laboratory of Tokai University at Shimizu re-
 ports that the Kuroshio is stronger than it was last year, with water temperatures
 2 to 5° C. warmer. It is stated that the small albacore fished in January by Ibaraki

Prefecture boats in coastal waters southeast of the Boso Peninsula and the large albacore along the line of 30° N. were very likely to mingle and be fished in waters along both the east and west sides of the Izu Islands. People at the market expected the price of small albacore to fall as demand from western Honshu fell off after the New Year of the lunar calendar. (Nippon Suisan Shimbun, January 10, 13, and 24, 1958.)

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TUNA LANDINGS BY MONTHS, 1956 AND JANUARY-JUNE 1957: Japanese tuna landings (including mothership operations) of bluefin, big-eyed, albacore, yellowfin, and skipjack tuna during January-June 1957 amounted to 199,471 short tons, substantially higher than the 177,084 tons landed during the

same period in 1956. Better catches of albacore accounted for most of the increase in 1957 since 1956 was a poor year for the Japanese albacore fishery, a November 27, 1957, despatch from the United States Embassy in Tokyo points out.

Japanese Tuna Landings by Months, 1956 and January-June 1957										
Months	Bluefin		Big-eyed		Albacore		Yellowfin		Skipjack	
	1957	1956	1957	1956	1957	1956	1957	1956	1957	1956
	(Short Tons)									
January	1,954	1,050	5,611	6,184	5,057	3,898	8,107	5,370	628	269
February	1,330	624	5,355	5,312	5,012	3,018	9,396	7,420	1,433	546
March	2,338	847	6,276	5,936	5,074	3,464	8,115	10,131	3,247	2,145
April	1,574	2,298	5,776	3,274	3,892	3,646	8,351	10,057	5,958	9,123
May	1,194	3,509	4,285	3,749	11,090	8,920	7,685	10,565	15,462	12,934
June	4,074	4,878	4,657	3,898	34,268	25,690	8,950	6,676	13,322	11,653
January-June total	12,464	13,206	31,960	28,353	64,393	48,636	50,604	50,219	40,050	36,670
July	-	4,865	-	2,790	-	10,384	-	5,481	-	26,773
August	-	5,791	-	2,038	-	934	-	5,977	-	14,612
September	-	4,952	-	2,798	-	380	-	4,456	-	14,331
October	-	5,948	-	4,803	-	591	-	5,663	-	11,496
November	-	3,621	-	4,530	-	876	-	5,221	-	3,282
December	-	2,286	-	6,556	-	2,827	-	7,701	-	818
By mothership	n. a.	4	n. a.	1,645	n. a.	4,063	n. a.	2,228	n. a.	12
Total for year	n. a.	40,673	n. a.	53,513	n. a.	68,691	n. a.	86,946	n. a.	107,994

N.A. - NOT AVAILABLE.

JAPANESE GOVERNMENT



Korea

TUNA VESSEL FISHES OFF PHILIPPINES: The Korean fishing vessel Shinan, en route to tuna long-lining grounds in Philippine waters, sailed on January 29 from Shimonoseki, Japan, where it called to purchase 1,500 cases of bait saury (for about \$2,500). According to the company which sold the bait, the Koreans are showing a strong interest in getting into high-seas tuna fishing.

Last August a vessel of the same fishing company bought bait saury from the same source and engaged in a 2-month fishing operation, but because the vessel had no refrigeration equipment and the fish were not handled properly, the whole catch of 21 tons was in poor condition and the operation was not a success.

Since the Shinan is a re-outfitted United States purse seiner and the hull is unsuited to high-seas tuna long-lining, not much hope is held for the present venture either, but if tuna fishing by the Koreans becomes active, there will be an increase in sales of bait and it is thought that this may boost Japanese bait exports. (Nippon Suisan Shimbun, January 29, 1958.)



Mexico

SHRIMP EX-VESSEL PRICE DISPUTE AT CARMEN ENDS: The tie-up of the shrimp fishing vessels, due to a dispute over ex-vessel prices at Ciudad del Carmen, Mexico, ended about January 30, 1958, without a final settlement. Reports indicate that about half the shrimp fleet left port for the shrimp grounds on January 31

and the remainder were scheduled to depart that same weekend. Production loss from the two-week strike was estimated about 1 million pounds of headless shrimp.

Negotiations between the boat owners and the cooperative fishermen for the contract price of shrimp for the two-year period January 1, 1958, to December 31, 1959, are continuing. The fishermen are demanding 3,800 pesos a metric ton for heads-off shrimp (US\$304 a metric ton or 13.8 U. S. cents a pound) and the expired contract price was 1,800 pesos a metric ton (\$144 a metric ton or 6.5 cents a pound). Upon settlement, the fishermen will be paid retroactively for the catches made during the negotiation period, the United States Embassy in Mexico City reported on February 3, 1958.



New Hebrides

TUNA FISHING VENTURE REPORTED SUCCESSFUL: The tuna plant and cannery established at Palekula, New Hebrides (island of Espiritu Santo), received its first catches of tuna late in October 1957, according to a report made by an Australian businessman following a trip to the island. His report also states that the freezing plant was established by a local firm with United States and Japanese backing and Japanese fishing know-how. Eight to twelve Japanese fishing boats are working under contract to the New Hebrides firm under a plan similar to that inaugurated several years ago in American Samoa.

The report states that there is no immediate prospect of canning tuna at the Palekula plant due to a shortage of labor. If fish canning is undertaken in the future, it is believed that a French firm will operate the cannery. At the present time the joint fish-freezing venture has the blessing of the British and French Governments in the New Hebrides as it is hoped that a new industry will help to relieve the Islands of dependence on the copra industry.

Present plans for disposition of the frozen tuna call for shipment to the United States and not to Australia (Pacific Islands Monthly, December 1957).

NOTE: ALSO SEE COMMERCIAL FISHERIES REVIEW, MARCH 1958, P. 51.



Norway

GROUND FISH PRICE NEGOTIATIONS CONCLUDED: According to Norwegian newspaper reports, the price negotiations for cod and codlike fish were concluded late in January. The proposal for an agreement was approved by the Ministry of Prices and Wages, by the Norges Raafisklag (the main cod fish marketing cooperative), and it was forwarded for ratification to the two other fish cooperatives that participated in the negotiations. The agreement established the government's fishing policy for the year ending January 31, 1959. However, it leaves the determination of fish prices to the individual marketing cooperatives as is authorized by existing law. Thus, the Norges Raafisklag is reported by the press to have stipulated the minimum 1958 Lofoten cod prices at 80 øre a kilogram (5.8 U. S. cents a pound), or 10 øre a kilogram (0.63 U. S. cents a pound) above the 1957 minimum prices.

The press also states that the Ministry of Prices and Wages will propose to the Storting that public funds be used to subsidize (1) the cost of fishing gear and bait, which in the past was paid out of the Price Equalization Fund for Fish and not from tax money, and (2) the prices paid to the fishermen to the amount of 11 million kroner (US\$1,540,000), in addition to the proposed 12 million kroner (US\$1,680,000)

to be paid from the Price Equalization Fund. The balance of the Fund, about 9 million kroner (US\$1,260,000) has been earmarked as subsidies to fish processors and exporters at the rate of 10 øre per kilogram (0.63 U. S. cents a pound).

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SEALING INDUSTRY TRENDS, 1957: The total Norwegian seal catch in 1957 was 203,500 seals, compared to 229,000 seals in 1956, and 295,000 seals in 1955. The decrease in 1957 was due to poor weather and difficult ice conditions, states a February 3, 1958, dispatch from the United States Embassy in Oslo.

Representatives of the sealing industry have requested the Ministry of Commerce to have products from Arctic waters included in arrangements connected with a European Free Trade Area. In support of its request, the statement was made that approximately 80 percent of Norway's sealskin production and about 95 percent of its seal-oil production are exported in a normal year at a value of approximately 24 million kroner (US\$3.4 million). The sealing industry states that Norway's competitive ability in European markets will depend heavily on whether the named products are among the preferred commodities.

In addition, the representatives of the sealing industry sent the Director of Fisheries a sharp protest against the recommendation to the Government by certain fishing interests that the fishing limit be expanded to 12 nautical miles, stating that if it were so extended in North America, sealing possibilities would be destroyed for Norwegians off Newfoundland and in the Denmark Strait (two of Norway's customary catching areas).

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WINTER HERRING FISHERY THREATENED WITH FAILURE: The 1958 winter herring fisheries off the Norwegian west coast threatened to be a dismal failure this year. As of February 1 less than 800 metric tons had been landed along the entire coast, representing a cash value of only about Kr. 180,000 (US\$25,200) to the vessels. At the end of January 1956, they had caught some 250,000 tons, with a first-hand value of over Kr. 55 million (US\$7.7 million), and that was considered poor.

Huge shoals of herring were reported to be approaching the coast at the end of January. But this news was cold comfort for the 26,000 fishermen who have been waiting for the herring since mid-January, for stormy weather was still keeping their vessels in port. The Norwegian winter herring season usually runs from about January 18 to February 15, and then, the price generally drops because the fat content of the herring is considerably lower. (News of Norway, February 6, 1958.)

Norwegian industrial officials have discussed the possibility of prolonging the season for a week after the date it would normally end.

The government-subsidized herring fund would then help the fishermen to recoup some of their losses, by paying the difference between the price for winter herring and the lower price obtainable for spring herring with its lower fat content.

The Norwegian herring fishery is one of the most important in the world. Normally vast masses of "filling" herring begin to assemble on the southwest coast of Iceland in December and move to the Norwegian coast north of Bergen as January develops. There they spawn in the fjords progressively as spring develops, and in winter and spring provide heavy fishing.

By North Sea standards, the Norwegian herring normally measures about 13.5-inches. As the spawning proceeds from February onwards, the shoals spread southwards until some 300 miles of coastline is affected. The spring spawning usually extends until April. A big fish-meal industry exists along this coast.

There are 16 or 17 effective age groups in the Norwegian stock, compared with nine in the East Anglian stock.

The late arrival of the herring in Norwegian waters is a problem for the scientists to investigate. It may have some relation to water temperatures or changes in the direction of currents which are suspected as having some bearing on the recent paucity of cod in Arctic waters.

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WINTER HERRING FISHING SEASON EXTENDED: Upon request from representatives of herring sellers and buyers, the Norwegian Ministry of Prices and Wages has agreed to extend the large or winter 1958 herring season from February 14 to February 21.

The end of the large or winter herring season marks the beginning of the spawning period for the winter herring. After spawning the herring become thin and are called spring herring and the price to fishermen drops by about 10 percent. As the winter herring arrived off the Norwegian coast considerably later this year than normally, the spawning period probably has been delayed also.



Peru

FISHERIES TRENDS, JANUARY 1958: A tie-up of Peruvian bonito fishermen protesting the low ex-vessel prices for bonito came to an end on January 1, 1958. The fishermen stopped fishing for bonito in an unsuccessful attempt to raise the price of 84-95 U. S. cents (16-18 soles) per dozen fish paid by the canneries. The canneries have had difficulty operating at a profit even at the relatively low price of about 2 U. S. cents a pound, due to low prices on the world market for canned tuna and bonito.

The reappearance in December 1957 of "El Nino," the warm current that appears periodically off the north coast of Peru, has caused some distress to the fishermen. The warm current forces the anchovies to seek the cooler lower depths beyond the range of the Peruvian fishing gear. This results in a decline in the production of fish meal and fertilizer, and reduces the tuna and bonito catch.

Preliminary estimates of the 1957 sperm whale catch indicate that 2,363 sperm whales were caught and yielded 7,802 metric tons of sperm whale oil. It is expected that the 1958 sperm whale catch will be double that for 1957 due to the addition of a new sperm oil plant in Peru during the past year, a January 7, 1958, dispatch from the United States Embassy in Lima reports.



Philippines

CANNED FISH RETAIL AND WHOLESALE PRICES, JANUARY 1958:
Retail and wholesale prices on January 16, 1958, for canned sardines and canned salmon in Manila are shown in table.

Product	Wholesale US\$	Retail US¢
Canned Sardines:	case (48 15-oz. cans)	can (15 oz.)
U. S. brand . . .	11.40	32.5-35
Japan brand . . .	9.35	22.5-27.5
Canned Salmon:	case (48 16-oz. cans)	can (16 oz.)
U. S. brand . . .	31.00	70-75
Japan brand . . .	23.50	55-60

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REVIEW OF FISHING INDUSTRY FOR FISCAL YEAR 1956/57: Landings: Fishery products landings from the three principal sources in the Philippines during the fiscal year ending June 30, 1957, amounted to 830 million pounds, valued at 332 million pesos (US\$166 million), according to a report made in December 1957 by the Director of the Philippine Bureau of Fisheries. Fiscal year 1956/57 landings exceeded those for the preceding fiscal year by about 16 million pounds in quantity and 19 million pesos (US\$9.5 million) in value. The value of the landings from the three principal sources was as follows: fish ponds, P50.2 million (US\$25.1 million); commercial fishing vessels, P75.2 million (US\$37.6 million); and municipal fisheries, P206.3 million (US\$103.2 million).

Consumption: The consumption of fishery products in the Philippines for fiscal year 1956/57 amounted to 962 million pounds, or about 130 million pounds more than the domestic landings. Nutrition experts have estimated the normal per capita requirement for fishery products to be about 56 pounds a year. Based on a population of about 22.5 million people, about 1,322 million pounds of fishery products are required. These figures indicate that the catch from domestic sources in the Philippines is about 40 percent under these requirements.

Imports: The imports of fishery products during the year ending June 30, 1957, were valued at P28.1 million (US\$14 million) for 127 million pounds. This was an increase of about 17 percent over the 1955/56 value of P23 million (\$11.5 million) for imports. Principal items imported included (1) canned fishery products, valued at P26.7 million (US\$13.4 million); (2) processed, dried, and smoked fish, valued at P0.2 million (\$0.1 million); (3) fresh fish, valued at P1,347 (\$674); (4) fish meal, valued at P1.1 million (\$563,000). Fishery products imports originated principally from the United States and Japan.

The only fishery products exported during 1956/57 were shells and bottoms manufactured from shells, valued at P2 million (\$1 million).

Principal Species: The Philippines has about 2,145 species of fish and shellfish. Additional unidentified species are estimated to total 200. The fish populations include some of the largest and smallest species and range from the whale shark to tiny gobies. The 12 leading commercial species in order of importance are: round scad (galunggong); slipmouth (sapsap); anchovy (dilis); mackerel (hasahasa, alumahan); hemalpterid (besugo); shrimp (hipon, pasayan); caesio (dalagang bukid); herring (tulis); big-eyed scad (galunggong species); sardine (tawilis, tunsoy, lawlaw); croaker (alakaak); and surgeonfish (labahita).

Investment: Fish ponds, as of 1956, represented an investment of P220 million (\$110 million) in an average of 110,000 hectares (44,517) acres. In 1,274 commercial fishing boats about P15 million (\$7.5 million) was invested and the investment in fishing gear amounted to P20.5 million (\$10.3 million). It was estimated in the report of the Director that there are about 500,000 hectares (202,000 acres) of marshlands and swamplands available for future development into fish ponds. The cost of developing one acre of fish pond amounts to about P1,250 (\$625).

Employment: An estimated 500,000 people are directly engaged in the Philippine fisheries and fishery industries. Included are 110,000 engaged in the operation of fish ponds, 16,000 engaged on commercial fishing vessels (3 gross tons and over), and the balance engaged in municipal fisheries and so-called subsistence fishing. About 2 million people are directly and indirectly supported by the fishery industries.

Fishing Grounds: There are a total of 42 distinct fishing areas in the Philippine Islands. The major grounds are the Sulu Sea, Visayan Sea, Manila Bay, Guimaras Strait (Bello Negros), Samar Sea, Hoite Strait, San Miguel Bay, Malumpaya Sound (Palawan Island), Sibuyan Sea, and Panay Gulf.



Portugal

CANNED FISH EXPORTS, JANUARY-NOVEMBER 1957:
For the first 11 months of 1957, canned fish exports a-

Product	Jan.-Nov. 1957	
	Metric Tons	US\$ 1,000
Sardines in olive oil	30,834	18,456
Sardinelike fish in olive oil . . .	5,305	4,024
Sardines & sardinelike fish in brine	1,271	314
Tuna & tunalike in olive oil . . .	2,516	1,999
Tuna & tunalike in brine	439	245
Mackerel in olive oil	5,695	2,897
Other fish	773	361
Total	46,797	28,296

mounted to 46,797 tons, valued at US\$28.3 million. Sardines in olive oil exported during the first 11 months of 1957 totaled 30,834 tons, valued at US\$18.5 million (Conservas de Peixe, January 1958).

During January-November 1957 the leading buyers of canned fish were: Italy, 8,585 tons (valued at US\$5,006,000); Germany, 6,700 tons (US\$4,023,000); Great Britain 5,792 tons (US\$3,329,000); the United States 4,773 tons (US\$3,956,000); and France 2,520 tons (US\$1,563,000). These countries purchased 60.6 percent of the quantity and 63.2 percent of the value of all Portuguese exports of canned fish.

Exports of sardines in olive oil for the first 11 months of 1957 to the United States amounted to 2,298 tons (valued at US\$1,823,000), and 1,914 tons of anchovies (valued at US\$1,820,000).

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CANNED FISH PACK, JANUARY-SEPTEMBER 1957: The total pack of canned fish for January-September 1957 amounted to 34,011 tons as compared with 32,164 tons in the similar period of 1956. Canned sardines in oil (14,016 tons) accounted for 41.2 percent of the January-September 1957 total pack, higher by 2 percent than the pack of 13,748 tons for the same period in 1956. For the first 9 months of 1955 the total pack of all canned fish amounted to 26,198 tons (18,214 tons sardines in oil).

Product	Net Weight	Canners' Value
	Metric Tons	US\$ 1,000
In Olive Oil:		
Sardines	14,016	9,754
Sardinelike fish	10,227	5,016
Anchovy fillets	2,183	2,170
Tuna	1,435	1,037
Other species (incl. shellfish)	645	422
In Brine:		
Sardinelike fish	4,868	1,229
Other species	637	159
Total	34,011	19,787

NOTE: VALUES CONVERTED AT RATE OF 26.75 ESCUDOS EQUAL US\$1.

The Portuguese pack of canned sardines in oil amounted to 3,209 metric tons during September 1957. The pack of all canned fish in September 1957 amounted to 4,972 tons, the January 1958 Conservas de Peixe reports.

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FISHERIES TRENDS, NOVEMBER 1957: Sardine Fishing: During November 1957, the Portuguese fishing fleet landed 18,518 metric tons of sardines (valued at US\$1,956,000 ex-vessel or \$105.64 a metric ton). In November 1956, a total of 16,906 tons of sardines were landed.

Canneries purchased 57.3 percent or 10,617 tons of the sardines (valued at US\$1,227,000 ex-vessel or \$115.56 a ton) during November. Only 183 tons were salted, and the balance of 7,718 tons or 41.7 percent of the total was purchased for the fresh fish market.

Matosinhos lead all other ports in November landings of sardines with 14,468 tons or 78.1 percent, followed by Peniche 2,391 tons (12.9 percent), and Setubal 801 tons (4.3 percent).

Other Fishing: The December 1957 landings of fish other than sardines consisted of 147 tons (value US\$6,900) of anchovy and 3,397 tons (value US\$200,700) of chinchard. (Conservas de Peixe, January 1958.)



Sweden

FISHERY LOAN AND INSURANCE FUNDS: The Swedish Fishery Board early in 1958 requested that the fishery loan fund be increased during the coming fiscal year from the present total of 3 million crowns (US\$579,934) to at least 5 million crowns (US\$966,557). The Minister of Agriculture is reported as realizing the need for an increased allotment, but not in a position to recommend an increase of more than 800,000 crowns (US\$154,649). Notwithstanding the Minister's recommendation there was no increase and the current budget proposal provides 3,000,000 crowns (US\$579,934) for the fishery loan fund.

Applications for loans out of the fishery loan fund during the current fiscal year totaled 8,795,930 crowns (US\$1,700,354), and thus only about one-third of the applications could be granted.

The fishermen's associations have pointed out that difficulties are being encountered by those fishermen who have to buy new boats or equipment. The associations assert that fishermen find it almost impossible to finance the purchase of new boats and in some cases they abandon their profession and leave their home villages with their families to seek work elsewhere, generally at the large ship-building yards. It is also maintained that, as a result, some fishing places are almost deserted, and small shipyards specializing in the construction of fishing boats, motors and other equipment, find themselves without work and are gradually forced to close down.

In the Kalmar district on the Swedish east coast an effort is being made to encourage fishermen to acquire larger fishing boats by increasing insurance benefits. The Kalmar Fishing Boat Insurance Company has had its guaranty fund increased from 60,000 crowns (US\$11,599) to 95,000 crowns (US\$18,365) by means of allowances from the fishermen's gasoline tax fund and the rural economy association. This has made possible an increase of the maximum insurance from 20,000 crowns (US\$3,866) to 30,000 crowns (US\$5,799), effective January 1, 1958. As the premium is as low as 1.25 percent of the amount of the policy, the increase in the maximum amount results in a considerable saving to the fishermen. In addition, tools and equipment may be insured for 3,000 crowns (US\$580).

Fishing experts in the Kalmar district state that a greater use of larger fishing craft such as trawlers would improve fishing results because trawlers can be used in practically any kind of weather and can follow the fish to the places where the shoals are found.

The present efforts to build suitable fish harbors are also part of this development. A number of fishing ports have already been improved on the Swedish east coast with the result that during the last few years trawlers have been added to the fishing fleet in the district (United States Consulate at Göteborg, January 17, 1958).

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NORWAY'S REQUEST FOR REMOVAL OF FISH FILLET IMPORT TAX DENIED: Sweden has replied negatively to the Norwegian note of January 2, 1958, which had requested the removal of the Swedish import tax on frozen fish fillets. According to press reports, the Swedish note states that, for the present, Sweden cannot take any decision on the question raised. It points out that the Swedish restrictions on fish fillets are part of the broader problem of the fishing industry as a whole in the Nordic countries and should thus be considered in the context of the problem of Scandinavian cooperation. The matter was to be considered at the meeting of the Nordic Fishing Committee, held in Stockholm, Sweden, on February 24, 1958.

Norwegian authorities have publicly expressed disappointment at the Swedish reply, and the Oslo press has been highly critical of it. (United States Embassy dispatch dated February 14 from Oslo.)

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REVIEW OF THE FISHERIES FOR 1957: West Coast: WINTER HERRING SEASON: In reviewing fishing activities on the Swedish west coast during the winter of 1956/57, the Swedish West Coast Fishermen's Central Association reports that at the beginning of 1957 while fishing was not hampered by ice, as was the case during several preceding winters, operations nevertheless were handicapped because of stormy weather. A further difficulty which reduced earnings of west coast fishermen during the winter months was the absence of herring on those days when weather conditions permitted fishing.

This shortage during the first two months of the year gave rise to considerable speculation as to whether the noticeable lack of winter herring was only temporary or whether it indicated a more or less permanent exhaustion of this species in the customary west coast fishing localities.

The fears of the more pessimistic fishermen were allayed temporarily in March when herring reappeared, specially off Egersund and Mårlepiken where the shoals were at times so dense that it was inadvisable to trawl for too long a time with either bottom trawls or floating trawls. This period soon passed, however, and on the whole west coast winter herring fishing gave rather poor yields and must be characterized as very unsatisfactory, except for the catches of a number of the larger boats that at the end of the 1956/57 winter season were engaged in floating-trawl fishing as far afield as north of Ålesund. These boats followed herring that came in from the Atlantic Ocean and proceeded toward the Norwegian coast. Some of these large boats obtained quite good catches.

AUTUMN HERRING SEASON: Herring fishing in the Kattegat was unusually good during the fall of 1957 and the West Coast Association reports that for several weeks there were catches of big herring which recalled the days when large herring seines were used.

The Association states that herring fishing in the North Sea will soon be carried on during the greater part of the year. At present, however, herring fishing in that area is confined principally to fishing off the Fladen ground during the months running from June through September. (The term Fladen herring, while it refers principally to herring caught off the Fladen ground, also is used to cover all herring caught in other fishing areas during the Fladen season). The financial result of this fishing is of great importance to Swedish west coast fishermen.

Fladen fishing in 1957 was relatively favorable with 255 boats participating, 58 of which salted fish at sea. Formerly bottom trawls dominated herring fishing in the North Sea during the fall months. In 1957, however, herring caught in floating trawls was landed as early as September. These catches were made on the Egersund bank where floating trawls had previously not been used at that time of the year.

In 1957, the Fladen herring season closed with 23,100 metric tons (50.9 million pounds) of herring landed on the Swedish west coast, a considerable increase over 1956. A contributing factor to the larger quantity landed in Sweden was the fact that in addition to the stipulated quantity each fisherman was permitted on each trip to land 10 cases or about 1,000 pounds of herring to be used for reduction.

Foreign landings per trip by west coast fishermen were up slightly in 1957 as compared with 1956. Landings abroad by Swedish vessels in 1957, however, were

fewer than in 1955. In West Germany there were 221 landings up to November 21, 1957. They commenced as early as July 1 at Cuxhaven which was the most frequented German port. In Hamburg, 63 Swedish vessels landed their catches and at Kiel 31. At the end of November 1957 a total of 6,600 metric tons (14.6 million pounds) had been landed, as compared with 5,200 tons (11.5 million pounds) during the same period of 1956.

In England during the months July-October 1957 there were 138 landings by Swedish vessels as against 140 in 1956. The quantity landed was 4,200 tons (9.3 million pounds) as compared with 3,500 tons (7.7 million pounds) the preceding year.

In Scotland, there were also fewer landings (62 as compared with 75), but larger quantities in 1957 were landed--1,400 tons (3.1 million pounds) in 1957 as compared with 1,000 tons (2.2 million pounds) in 1956.

Export salting was conducted on a large scale in 1957 with 3,700 tons (8.2 million pounds) salted for this purpose. Salted fish sales to the domestic market were lower than in preceding years because of the expanding market for fresh fish. A transfer to sea-salted herring was also more noticeable in 1957 because the fish preserving industry reduced its purchases.

COD FISHERY: West coast fishermen trawling for cod in the Baltic made comparatively good catches in the spring of 1957, and the result for the year was very good with up to 75 boats from the west coast participating during certain weeks.

MACKEREL FISHERY: Mackerel net fishing in 1957 was better than in 1956 but was characterized by the Association as being on the whole "hardly average." Trawlers landed mackerel sporadically throughout the year. The minimum guaranteed price for mackerel was somewhat higher in 1957 and contributed to making profits a little better than during the preceding years.

OTHER FISH: Ling catches were quite good in 1957. The year was also a good eel year with the West Coast Fishermen's Fish Processing Plant receiving 206 tons (454,000 pounds) of eel as compared with 104 tons (230,000 pounds) in 1956; the record year, however, was 1955 when 264 tons (582,000 pounds) were sold.

East Coast: The problems facing Swedish east coast fishermen are primarily those relating to catches, sales, and price fixing, according to the Swedish Coast and Sea Fishermen's Association in reviewing the year 1957.

The big question facing east coast fishermen as the year 1957 opened was: Has the Baltic herring abandoned the east coast and are the days of seine fishing over?

In 1956 Baltic herring fishing along the Gulf of Bothnia was "a total failure," according to the Association, and along other parts of the east coast there was no gill-net fishing but only trawl fishing. Furthermore, the fish caught in the trawls were big and thin, appeared full grown, and gave no hope for future fishing. The picture changed, however, in 1957 and, according to the Association, reports of surveys in the Baltic indicate there is a good supply of Baltic herring, chiefly young fish, which gives good prospects for the future. The Association also advances as proof that there is Baltic herring the fact that trawl fishing for herring off Gotland resulted in good catches all through 1957. Fall fishing was good all along the east coast and judging from November catches normal spring fishing is expected in 1958.

In discussing sales and prices, the East Coast Association reports that both remain unfavorable for east coast fishermen. Good Swedish transportation facilities, the Association stated, enable Baltic herring and other herring to be shipped to the

same domestic markets from the east, south, and west coasts. Different fishing methods, different sales systems, and different distribution methods result in a price competition which, the East Coast Association asserts, in most cases affects sales conditions for Baltic herring, the result adversely affects profits for east coast fishermen, which in turn reduces the number of east coast fishermen, thus creating "another problem of a serious nature to the east coast."

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SCARCITY OF SPRAT CAUSES WORRY: The Director of the Sea Fishery Laboratory at Lysekil, Sweden, commented on the increasing shortage of sprat in a press interview published on February 8, 1958, in the Göteborg press.

"During the last three years sprat has been getting increasingly sparse, according to a statement made by the head of the Sea Fishery Laboratory at Lysekil.

"As early as 1954 Norwegians and Swedes began to be concerned over the future of sprat fishing because of growing Danish 'industrial fishing' in the Skagerrak and the Kattegat that had increased enormously since 1950. Repeated efforts have been made to introduce regulations on an inter-Scandinavian basis, for Denmark, Norway and Sweden in order to protect the supply of sprat in these waters.

"At various Scandinavian fishing conferences and meetings the Swedes and Norwegians have stressed the importance of limiting sprat fishing as long as it is not clear how much fishing the supply can stand and what the consequences of excess fishing may be. The Danes, on the other hand, maintain that the reduction of the yield of Swedish summer fishing of sardine sprat may depend on natural variations in the size of the supply. The Danes, therefore, do not wish to support the Swedish and Norwegian demands for protective measures until it has been scientifically proved that the increasing fishing causes damage.

"The three countries have agreed on the necessity of continued mutual extended biological surveys of sprat and sprat fishing.

"The Director suggested another inter-Scandinavian conference on sprat and sprat fishing. The invitation should list questions relating to measures for the protection of sprat that the Swedes wish to discuss, for instance the introduction of a prohibition against trawl sprat fishing during the period April 1-September 1.

"Statistics covering sprat landings on the Swedish west coast show that the quantity of summer sprat in 1957 was about 6,113,000 pounds, compared with about 11,989,000 pounds in 1956 and about 15,921,000 pounds in 1955." (United States consular dispatch, dated February 10, 1958, from Göteborg.)



Taiwan (Formosa)

FISHERIES LANDINGS IN 1957 PASSED 200,000 TONS: The 1957 fisheries landings in Taiwan reached 208,121 metric tons. This shattered the record of 193,410 metric tons in 1956 and exceeded the target set in the Second Four-Year Production Plan by 3,121 metric tons. The catch by categories as compared with the 1956 catch is shown in table.

The greatest increase in 1957 was from deep-sea fisheries, 18.7 percent over the 1956 landings. This was due to the use of larger and newer boats in tuna long-lining and deep-sea trawling, and the comparative calm weather in the typhoon season. The decrease in the coastal catch was due to two reasons: (1) the poor catch

of sardines and anchovies by torch fishing, and bonito by set nets; (2) the use of larger powered boats in place of sampans, thus resulting in a portion of the catch being recorded against the "inshore" category.

The target for fish production in 1958 has been set at 220,000 metric tons.

NEW 350-TON TUNA BOATS GAVE GOOD PERFORMANCE: Of the four 350-ton tuna long-liners scheduled to

go into operation in 1957, two boats, M/V Yu Ya and M/V Yu Ou, made two trips in 1957. The catch of the first trip was poor for both boats. But both vessels came back from their second trip with almost full loads; Yu Ya, 3,600 fish and Yu Ou, 3,300 fish.

WHALING IN 1957 UNSUCCESSFUL: The 185-ton Japanese catcher that operated from Hengchun (southern tip of Taiwan) from March to April 1957 caught only 4 whales. A 375-ton catcher arrived at Hengchun in late December 1957 under the same Sino-Japanese cooperation arrangement. With this earlier start, the boat is expected to have a more successful season in 1958.

PRODUCTION OF CLAM SEEDS: Culture of hard clam, Meretrix meretrix, is gaining popularity in Taiwan, and the supply of seed clams is becoming insufficient to meet the increasing demand. The Joint Commission on Rural Reconstruction has financed a project to multiply seed clams at Tansui this spring. About 500 tons of seed clams are expected to be produced in 1958 under this plan.

--BY T. P. CHEN, FISHERIES SPECIALIST,
JOINT COMMISSION ON RURAL RECONSTRUCTION,
TAIPEI, TAIWAN.



United Kingdom

FISHING INDUSTRY PROPOSED TEMPORARY INCREASE IN ICELANDIC COD LANDINGS QUOTA: A temporary suspension of the agreement which limits the landings of Iceland-caught fish at British ports was proposed by the British fishing industry at Grimsby because of a serious shortage of cod. Under the agreement, the permitted annual landings by Icelandic trawlers in British ports must not exceed £1,800,000 (US\$5,040,000) for fresh fish and £200,000 (US\$560,000) for frozen fish. The quota calls for 60 percent cod and 40 percent haddock and flounders.

Landings of cod early this year by the Icelanders exceeded the quota by about £6,900 (US\$19,320) and landings of haddock and flounders were about £40,000 (US\$112,000) below the agreed quota. In view of the excess landings of cod, no Icelandic trawler could land in British ports until February.

As there was little demand for haddock and flounder at this season early in the year, Grimsby merchants suggested that the £40,000 deficiency in the agreed quota for haddock and flounder landings should be made up by over quota landings of cod. The British fish dealers claimed that this substitution would relieve the scarcity of cod. (United States Embassy in London, dispatch of January 23, 1958.)

FROZEN COD FILLETS SOLD TO RUSSIA: The sale of 4,000 tons of quick-frozen cod fillets to the Soviet Union was announced by the British Trawlers' Federation on January 23, 1958. The fillets will be processed at Hull, Grimsby, and Fleetwood, with the first shipment to be made in April 1958.

The agreement was made with the help of the British Board of Trade, the Ministry of Agriculture, Fisheries and Food, the White Fish Authority, and with the full cooperation of the trawler owners and the unions representing the crews of the distant-water trawlers.

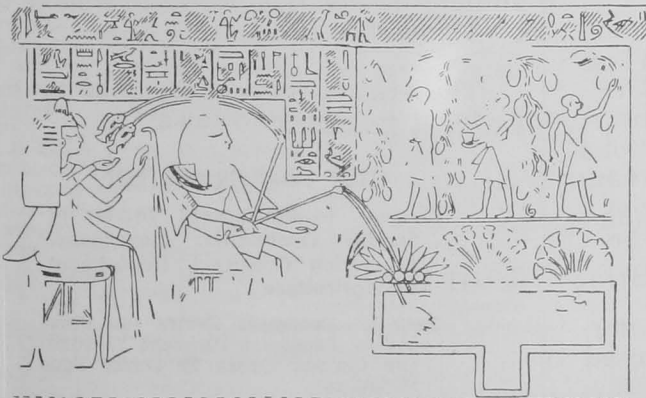
Officials expressed the hope that the shipments to Russia will help to reduce the surpluses which occur in the spring and summer, states a January 23, 1958, dispatch from the United States Embassy in London.



FISHPOND CULTURE PRACTICED IN EGYPT 5,000 YEAR AGO

The Ancient Egyptians practiced fishpond culture nearly 5,000 years ago, declares Pierre Chimits, Fishery Officer of the Ministry of Agriculture, Paris, in an article on "Tilapia in Ancient Egypt" which appears in *Fisheries Bulletin* (vol. X, no. 4) published by the Food and Agriculture Organization (FAO), Rome, Italy.

The Egyptians were also first in pond culture of tilapia, it seems, although it was believed until recently that the first experiments in such culture were carried out in Kenya in 1924.



A BAS RELIEF FROM THE TOMB OF THEBAINE (REPRODUCED FROM KEMI, VOL. 13, 1954 PARIS).

"Tilapia was well-known in Egypt in 3,000 B. C., writes the author. "It is often represented in bas reliefs, so beautifully and exactly designed that one can clearly determine the species--without doubt *Tilapia nilotica*--easily recognizable by the slightly-rounded caudal fin. This species is still very abundant in the Nile."

The fish, named "Inet" in Ancient Egypt, was sacred, and symbolized the hope of birth after death.

The article is illustrated by reproductions of scenes from bas reliefs and drawings 4,000 to 5,000 years old. These illustrate methods used by the Ancient Egyptians to net and hook fish, and to split and dry them.

One interesting scene is from a bas relief from the tomb of Thebaine. The author writes: "An Egyptian of importance is sitting in his garden, his wife just behind him, and his servants picking fruit from the trees. The master fishes with a double line, with two hooks, in an artificial pond, which is perhaps a drainable fish-culture pond. The pond, with well-defined edges, has in the middle a deeper central canal, used for draining. The two fish he has caught are easily recognizable by their round caudal fin as *T. nilotica*, and he is giving these to his wife so she can unhook his catch."

When the Ancient Egyptians went fishing for sport they took their wives with them to unhook the catch.

The author concludes his article by stating that the family fishpond recommended for culture of tilapia today "is similar to that of Ancient Egypt, with its central drainage canal and with two shallower parts on either side for the growth of aquatic vegetation where the fish seek nourishment."