

FOREIGN FISHERY TRADE

Imports and Exports

GROUND FISH IMPORTS: From January 1 to November 30, 1946, there were 46,874,562 pounds of fresh and frozen groundfish imported into the United States under the tariff classification, "Fish, fresh or frozen fillets, steaks, etc., of cod, haddock, hake, cusk, pollock, and rosefish." This was 8,128,549 pounds more than the groundfish imports for the corresponding period in 1945, according to a report from the Bureau of Customs, Treasury Department. The reduced tariff quota for the year is 20,380,724 pounds.

Commodity	Nov. 1-30, 1946	Oct. 1-31 1946	November 1945	Jan. 1- Nov. 30, 1946	Jan. 1- Nov. 30, 1945
Fish, fresh or frozen fillets, steaks, etc., of cod, haddock, hake, cusk, pollock, and rosefish	3,024,902	6,803,251	2,898,420	46,874,562	38,746,013



Canada

COLD STORAGE: Canadian holdings of fishery products totaled 43,111,000 pounds on December 1, according to a report received from the Department of Trade and Commerce, Dominion Bureau of Statistics. Compared with stocks held on November 1, this was a decline of 1,211,000 pounds, but was 9,320,000 pounds greater than December 1, 1945.



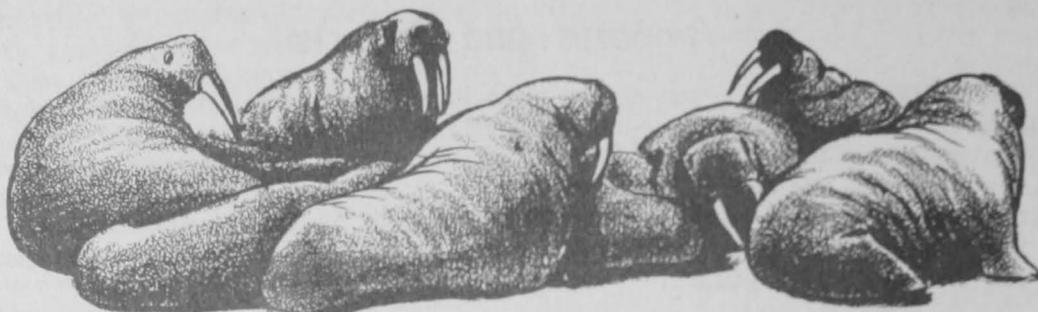
France

ASDIC USED TO DETECT FISH: French Naval authorities collaborated with the Scientific and Technical Office for Maritime Fisheries on a mission prior to August 1946 to test the detection of fish through the use of asdic, according to a report dated August 5 to the Department of the Navy from the U. S. Naval Attache at Paris, France.

The correspondent who was aboard the ship on the mission reported the experiment as a success and conclusive. The fish were properly reported by the asdic operators.

According to the Naval Attache's report, a French mission conducted under water sound tests near St. Pierre et Miquelon as early as 1926 and found that echoes could be obtained from banks of fish. The Office, in collaboration with Professors Langevin and Florisson, continued its investigations from 1926 to 1939, always through the use of echoes obtained from sound apparatus.

Greenland



GREENLAND'S FIVE-YEAR FISHERIES PLAN: Work to be carried out in Greenland during the next 5 years with regard to the fishing industry has been outlined from a report of the discussions between the Greenlandic Delegation, the Danish Parliament's Greenland Committee, and officials from the Greenland Office and transmitted to the U. S. Department of State by the American Consulate at Godthaab, Greenland, under date of August 1, 1946.

The outline of the 5-year plan is, in part, as follows:

The Committee recommended that more and larger boats be sent to Greenland, and that they be paid for by the Greenlanders. It was pleased with the Greenland Office's plans for establishment of a boat works in Greenland.

The Committee emphasized the importance of the Greenland Office's practice of renovating and enlarging old fish houses and building new ones as the need arose.

The Greenland Office's policy of assigning young men with knowledge of fishing and interest in the promotion of the industry as outpost managers, at those places where the population is in need of instruction, was endorsed.

The Committee endorsed drying fish when lack of salt or other reasons prevents the purchase of fish for salting. A recommendation was made that enough fish be dried to provide for the internal requirements of the island.

With regard to frozen fish, the Committee agreed with the Greenland Office that nothing should be done at present. This stand was taken not only because of the large initial expenditure for the purchase and installation of required equipment, but because of the desire to see how successful the freezing process will be in other parts of the world.

The salting of salmon was approved and the recommendation made that it be continued as long as salmon prepared in this manner brought good prices. If this situation changed, it was thought that canning should be considered.

It was recommended that shrimp fishing be expanded as much as possible and if necessary new canneries be established. At present there is one cannery which is located at Holsteinsberg.

A recommendation was made that results of investigations now taking place on commercial possibilities of red fish be known before any decision is made.

Considerable shark fishing is being done in Greenland, which was approved. The skins bring a good price, and in order to create all possible interest, the Greenland Office has increased the price paid Greenlanders for good skins. It was suggested that possibilities for commercial use of shark liver oil be thoroughly investigated.

The group endorsed the Greenland Office's ruling that the head of the Arctic Station at Godhavn should make a close study of sea mammals, with special attention to their protection during the mating season, his primary mission.

It was proposed that an effort be made through international organizations to protect rookeries of the sortsiden and bladder nose seals, which are of such importance to the Greenlanders.



Ireland

HERRING OIL AND MEAL: Announcements issued by the British Government on October 8, 1946, concerning the production of herring oil and meal in Eire were transmitted to the U. S. Department of State on October 31, 1946, by the American Embassy at London, England.

Extracts from the announcements follow:

Arrangements have been made for processing surplus herrings into oil and meal during the coming East Anglian season.

A Committee of Inquiry, on which the Ministry of Agriculture and Fisheries and the Herring Industry Board are represented, is examining the possibilities, both from the short-term and long-term views, of developing the production of oil and meal from herrings in Eire. The Herring Industry Board has, during the recent Scottish season, operated a small plant in the Shetland Islands, and the present project involves the use of existing processing plants at Hull and London. The quantity of herrings that can be processed is necessarily limited by the capacity of these plants--about 4,000 crans (1,568,000 pounds) a week. If this capacity is completely used during the East Anglian fishing season, the production will be approximately 60 tons of oil, and 120 tons of meal a week.

The costs of processing and transporting the herrings from the landing ports to the plants would make the commercial price payable to fishermen for herrings unremunerative. The Government, therefore, in view of the shortage of oil and feeding stuffs, has offered, during the East Anglian season, a subsidy on herrings sold for processing. Only herrings which are not taken for the home or export markets will be sold for processing.

It is hoped that similar arrangements may be concluded for herring processing during the winter fishing season in the Firths of Clyde and Forth, in which case, use might be made of the existing plant at Falkirk.

The Committee of Inquiry is also examining the possibility of other developments of a long-term nature in utilizing herrings for oil and meal, but these plans are as yet only at a preliminary stage.

Netherlands



NETHERLANDS OYSTER INDUSTRY: The Netherlands oyster production this season is on the increase, and its exports of mussels are again rising. Its lobster fishing is relatively unimportant, but shrimp production is widespread, according to an article on the Netherlands fishing industry, prepared for the Commercial Intelligence Journal, December 7, 1946 (Ottawa, Canada), by the Commercial Counsellor of the Canadian Embassy.

Extracts from the article follow:

Oysters constitute one of the more important items in the Netherlands fishing industry. Centered in the Province of Zeeland since 1870, the oyster industry has experienced periods of sharp fluctuations. About 1910, when the situation was extremely favorable, exports alone amounted to between 40 and 50 million oysters, while the anticipated production for the year 1946-47 is only 20 million.

After an interruption during the first world war, there existed another boom condition as a result of disease developing in the English and French oyster beds, causing a considerable demand for fresh supplies of breeding stock. Large quantities of breeding stock were shipped to France and other countries. In 1930, however, a serious oyster disease broke out in the Dutch breeding beds, causing great damage. Production figures fell yearly until 1936, when the total production amounted to only 6 million oysters. By securing breeding oysters from France, it was possible to improve the stock.

Another misfortune befell the industry in the winter of 1939-40. A very severe winter killed many of the French breeding oysters and wrought havoc among the depleted oyster beds. Due to the war, it was impossible to obtain new breeding stock, causing oyster production to fall to a very low level. Annual shipments during the 1941-44 period averaged only 4 or 5 million oysters. Owing to the great demand, high price, and limited supply, it was feared that light oysters would be harvested and sold, a situation which would have an additional adverse affect on the rapidly declining oyster production. A minimum weight was established for oysters that were to be sold.

During the last few years, production again has shown an increase, and in 1944-45 amounted to 8 million. Due to transportation and other difficulties, only 5 million could be sold, the remainder being resown in the oyster beds. During the 1945-46 season, about 15 million were sold, a figure which had not been reached since 1933-34.

Great Britain formerly was the principal consumer of heavy oyster varieties, while Belgium was the main purchaser of the lighter kinds. Belgium, at present the largest consumer, purchased 9 million, while 350,000 were sent to Denmark. Exports were also made to Switzerland, Sweden, and Luxembourg.

The Province of Zeeland is also the center of the mussel industry. During the 1930-39 period, annual production amounted to between 40,000 and 50,000 metric

tons. Compared with exports, the prewar domestic consumption of mussels was very small, approximately 3 to 4 percent of the total production. In 1930, exports amounted to about 33,000 metric tons, rising in 1937 to 47,000 metric tons, the principal customers being Belgium and France.

Domestic mussel consumption assumed large proportions during the war. Exports to France ceased and those to Belgium declined strongly. From September 1945 to April 1, 1946, 8,000 metric tons were exported, the main purchaser being Belgium. It is estimated that between 30,000 and 40,000 metric tons will be available for export during the 1946-47 season.

Anchovy fishing is another fairly important Netherlands occupation. During the period 1878-1941, the average annual production was approximately 1,500 metric tons. Since 1930, exports of salted anchovies have fallen. Germany consumed nearly all the anchovies exported. Before the war, fairly large quantities of anchovies came from Spain, where Dutch dealers had established their own plants. These anchovies were processed in Holland for export, as the method of salting was different from that employed in Spain.

Not more than a few thousand kilos of lobsters are caught in the Netherlands annually. Efforts have been made to raise the production artificially, but these have proved unsuccessful due to the high cost. At the present time, the lobster trade is very small, but it is expected that business will improve.

The Netherlands shrimp fishing industry, with a fleet of 300 vessels, is not centered in any particular district, but is spread over various parts of the country. The average annual prewar catch was 2,836 metric tons. In 1945, more than 2,000 metric tons of shrimps were caught, of which 440 metric tons were destined for fodder and the balance largely marketed unscaled, due to the lack of labor. Exports are made to Belgium and Great Britain. It is expected that the latter will purchase at least 20 metric tons monthly for the next few months and that further shipments will be made to France and Sweden.

With regard to postwar prospects, exports, in general, are showing a steady increase, although various difficulties are encountered, in addition to competition from Norway and Denmark. With a view to the future, it is important that the industry should maintain an outlet in the British market, even though prices obtained in Great Britain are lower than those prevailing in the domestic market. Fresh fish has been included in the recent trade agreements with France and Czechoslovakia. Exports to Switzerland are somewhat handicapped by transportation difficulties.



Norway

WHALE AND HERRING OIL: The Norwegian whaling industry plans to operate 10 floating factories and 90 whalers by October 1947. Seven floating factories, one land factory, and 63 whalers are now operating.

Further forecasts of the whale-oil and herring-oil industry in Norway during 1947, published in Foreign Commerce Weekly, December 14, 1946, are in part, as follows:

It was reported in October 1946 that all of last season's exportable surplus products plus the preceding year's carry-over had been sold. The Norwegians expected a quota of 16,000 blue whales from the International Whaling Conference held in Washington.

Of Norway's total production of 83,615 tons of whale oil, more than 40 percent has been set aside for the home margarine industry, and before the year's end, Norwegians will have consumed over 34,000 tons of whale fat. Improved methods of refining and hardening have made today's margarine--which incidentally is about 80 percent whale oil--a far cry from older butter substitutes using the same product, says the Norwegian Information Service. Vegetable oils and butter, both of which served to add to the fat content of prewar Norwegian margarine, have been so limited that without resources of whale oil a serious edible-fat shortage might have developed in the northern kingdom. An increasing number of uses for both fish oils and whale oils are being found in Norway at the present time.

Herring-oil production during the 1946 season was reported to have been 14,500 metric tons. Next season's production is being estimated at from 9,000 to 10,000 metric tons. The difference between production last year and probable production this season is explained by the fact that the unusually good catch and high oil content of the herring last year cannot be expected this year.



Peru

IMPORTANCE OF FISHING INDUSTRY: The fishing industry plays an important role in the economy of Peru. It not only provides food, but a considerable number of people derive their living from it. In view of the shortage of domestic livestock for meat, a situation which is expected to continue for several years, fish is an important item in the national diet. The establishment of fish canneries in recent years, the projected installation of new fish-processing plants and cold-storage plants especially designed for fish, and the construction of larger fishing fleets are evidences of the impetus given this enterprise by increased domestic and foreign demand. The industry promises to become one of the most important in the economy of the country.

The foregoing is an extract from a report dated October 21, 1946, to the U. S. Department of State from the American Embassy at Lima, Peru. The report is in part as follows:

Although fishing has been carried on in Peru for many years, no industry worthy of the name existed until about 1941. Prior to this time, the main purpose of fishing in Peru was to supply fresh fish to the population along the coastal belt, and no serious attempt was made to process fish, except for small scale drying and salting operations in northern Peru. It was during World War II that the Peruvian fishing industry attained significance. United States' interest in fish livers in 1942-44 and the cutting off of Peru's regular sources of supply of fishery products resulted in an active interest by Peru in the processing and exportation of fish and fishery products. Active demand in the United States for Peruvian salted fillets, canned fish, and other fishery products has been directly responsible for the development of fishing activities in Peru in recent years.

There are 32 ports in Peru which are fish production centers. The most important are Callao, Sechura, Pisco, Pimentel, Ilo, and Huacho. Available statistics reveal that of a total catch of 31,958 metric tons in 1945, the port of Callao accounted for 14,074 metric tons, or 44 percent.

The most important fishing areas in Peru are within a radius of 120 miles of Callao, Sechura, Ilo, Pisco, Chimbote, and Cabo Blanco. Most of the fish at these points are found relatively close to shore, approximately 30 miles within the 100-fathom curve.

There are no organized commercial fresh-water fisheries in Peru. Fresh-water fishing, principally for Paiche (*Arapaimas gypas*) in the Amazon, trout in Lake Titicaca, shrimp in the rivers of the coast, and frogs in the Junin lakes is carried on both for subsistence and commercially.

The Bureau of Fisheries estimates that there are approximately 8,000 fishermen in Peru. It is estimated by the same source that there are approximately 1,000 persons employed in the fish-canning industry, 500 engaged in salting fish, and another 1,000 in the transportation of fish and other activities related to the industry.

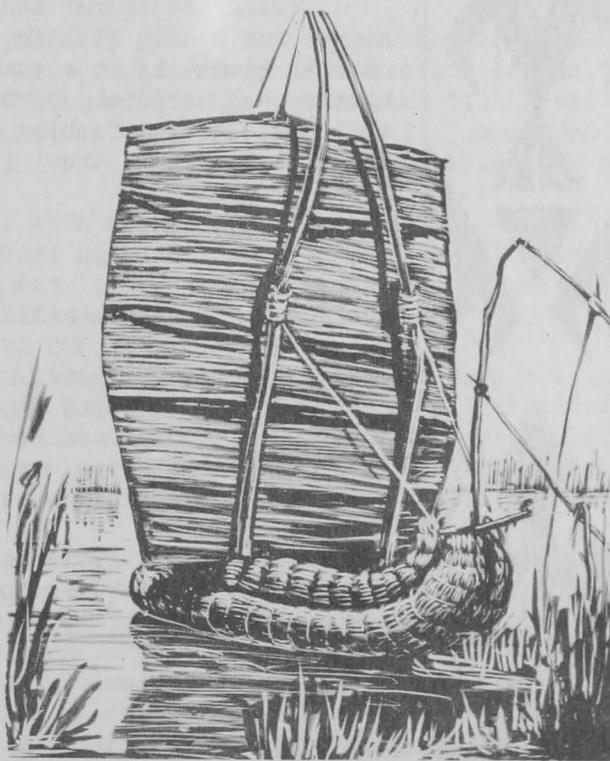
During the bonito season, from October through March, fishermen make from 70 to 140 sailings. The average for Callao is reported as 105. Those engaged in hook fishing make an average of five sailings per week. In the northern part of Peru, fishermen remain at sea for long periods of time, up to 30 days, fishing and salting on board. Nearly all other Peruvian fishermen average 16 hours per round trip.

Peruvian bonito canneries average 8 working hours per day. Since most of these are modern factories, working conditions are good. Working rooms are clean, well ventilated, and, as a general rule, no artificial light is necessary.

Subsistence fishing is carried on in the coastal region on a small scale, and in rivers and lakes located in the Amazon and Andean regions, where the population, composed mostly of Indians of very low income, rely to a large extent on fresh-water fish for food.

It is estimated that about 2,000 persons fish for sport in Peru. Although sport fishing is not organized in this country, expansion is anticipated in the near future, particularly angling for large fish such as swordfish and albacore.

It is estimated that there are approximately 2,600 fishing vessels of all types in Peru, including five boats 35-40 feet long, especially designed



BALSA BOAT ON LAKE TITICACA

for shark fishing, and six purse-seiners. Sail fishing boats are by far the most numerous. The great majority of these are 18 to 25 feet long and have a cargo capacity of from $\frac{1}{2}$ to 2 metric tons. Small power fishing boats range in length from 27 to 34 feet. Most of them are 29 feet long with a beam of from 9 to 11 feet and a cargo capacity of from $2\frac{1}{2}$ to 5 metric tons. It is estimated that there are at present about 250 boats of this type, most of which are equipped with 7-15 hp. semi-diesel or gasoline engines.

In view of the increasing requirements of processing plants, the present fishing fleet is inadequate. In order to obtain a twofold increase in the bonito catch, which is considered necessary to satisfy the demands of Peruvian fish canneries, the construction of boats larger than most of those now in use will be required.

There is a scarcity in Peru of certain kinds of fishing gear. Most needed are cotton twine for nets, hooks, half-ring nets, and small purse-seines for use by small boats. It is reported that a plant has been established for the manufacture of cotton twine for fishing and other purposes.

So far no offshore fishing has been done in Peru. Practically all fishing boats operated in Peru are of a type suitable only for inshore fishing, with the exception of two or three vessels.

During the summer season, gill nets are used almost exclusively for bonito fishing, while in the winter, trolling, using oars as booms, is more common. Gill nets are used for fishing herring and mackerel, and hooks are used for fishing tuna, drum, and bass. Other fishing gear widely used in Peru are trammel nets, haul seines, trawl lines, and hand lines.

The statistics show that the total Peruvian fish catch was 31,958 metric tons in 1945; 30,268 metric tons in 1944; 26,725 metric tons in 1943; and 21,063 metric tons in 1942. Bonito accounted for 18,711 metric tons (59 percent) of the total 1945 catch, as against 16,327 metric tons (54 percent) in 1944; 11,967 metric tons (45 percent) in 1943; and 5,718 metric tons (27 percent) in 1942. The 1945 total catch was 52 percent greater than in 1942. Bonito landings in 1945 increased 228 percent over 1942. Other species whose 1945 catch was 500 metric tons or more were mackerel, sea bass, drum, dogfish, and herring.

Although statistics on the Peruvian fish catch are available from 1939, figures compiled before 1942 were very inaccurate and are misleading.

The production of fresh salted fish fillets in 1945, most of which was bonito, is estimated to have been about 7,000 metric tons, practically all of which was exported to the United States. This industry was stimulated by the purchases of agencies of the United States Government during the war. The ces-



sation of purchases by the United States Commercial Company and UNRRA in the latter part of 1946 probably will result in the termination of production of salted bonito fillets, since there is practically no demand for this product in Peru.

The total production of canned fish in Peru in 1945 was estimated at about 275,000 cases of forty-eight $\frac{1}{2}$ -pound tins, and 25,000 cases of forty-eight 1-pound tins. Bonito in oil (cottonseed oil sometimes mixed with peanut oil) is the principal fish canned in Peru. It is packed in $\frac{1}{2}$ -pound tins and is generally designated as tuna fish, although the amount of tuna fish canned is very small. Tuna fish landings in 1945 amounted to only 295 metric tons, or less than 1 percent of the total landings of fish. Reliable trade resources and the Bureau of Fisheries estimate that the total output of canned bonito and tuna fish in oil during the year 1945 was approximately 250,000 cases of forty-eight $\frac{1}{2}$ -pound cans.

The 1945 production of canned sardines in tomato sauce, principally herring and mackerel, was calculated roughly at 25,000 cases of forty-eight $\frac{1}{2}$ -pound tins. Sardines in oil are not being packed at present in Peru.

"Bonito al natural" (in brine), packed in 1-pound cans, is another type of fish prepared in Peru. The output of this product in 1945 was estimated at about 25,000 cases of forty-eight 1-pound cans.

The total production of dry salted fish in Peru in 1945, excluding the output of salted fresh-water fish, which is unknown, is estimated at approximately 3,000 metric tons, of which about 1,000 metric tons were salted shark and swordfish, locally known as codfish, and the balance was miscellaneous species.

So far, no smoked, kippered, or pickled fish have been produced in Peru, but local concerns plan to produce such products in the future.

Although fish meal has been produced in Peru since 1945, the extraction of fish oil was begun on a small scale only, in 1946. The production of meal and oil is rather sporadic, depending upon the availability of fish and fish residues. As a general rule, only fish residues from the filleting industry are used for this purpose. At present, there are only three reduction plants which are producing fish oil.

Fish livers have not yet been utilized in Peru for the production of vitamins, but a Peruvian-American organization is now building a plant for the processing of fish livers, which is expected to be completed by the end of 1946.

The only available statistics on fresh fish consumption in Peru are those for bonito for the Lima-Callao area which are compiled by the Bureau of Fisheries. According to these data, of a total bonito catch of 12,514 metric tons in Callao during the year 1945, 4,137 metric tons, or 33.1 percent, were consumed fresh. The balance of 8,376 metric tons, or 66 percent, was used by fish processing plants.

There is a definite preference in Peru for fresh fish. There is a fairly good demand for canned fish, particularly sardines in olive oil and salmon. Dried salted codfish is in demand particularly during the Easter season, when, for religious reasons, a great number of persons abstain from eating meat and poultry. On the other hand, there is practically no demand in this market for fresh salted or frozen fish fillets.

In prewar years, fairly important quantities of fish and fishery products were imported into Peru. Sardines, salmon, and dried fish were the principal items.

The first fish was exported from Peru on a commercial scale in 1940. In this year, 93,000 gross kilos of frozen fish were shipped to the United States. Exports of fish livers, dried, salted bonito fillets, and canned bonito increased steadily as a result of active United States demand.

Despite the development of the domestic fish processing industry, Peruvian import duties on fish and fish products have not been changed since 1936, except for an increase of 20 percent in December 1941, which was a general increase in the Peruvian tariff rather than a measure to protect the local industry.

Prices for fresh fish vary in Peru according to production centers and the supply, which is seasonal. Municipalities are given the authority to fix prices on fish in accordance with size, weight, and type of fish.

The Bureau of Fisheries and other reliable sources are of the opinion that the production of fish and fishery products in Peru will increase substantially in the near future as a result of the establishment of new processing plants. The fish canning industry is expanding so rapidly that the processing capacity at present is greatly in excess of fish supplies, and canneries must operate sporadically. The increasing demand for fish in the Lima-Callao and adjoining areas has intensified fishing activities at nearby northern ports--Huacho, Chancey, Supe, and Chimbote--and the establishment of new processing plants in these places has been reported. In addition to the plants in the port of Pisco, there is a new fishing plant operating in the port of Ilo, in the extreme south of the country. It is expected that as soon as highway, fresh water supplies, electric power, and other necessary facilities are improved in the northern section (Paíta-Sechura-Cabo Blanco) fishing activities will expand considerably, inasmuch as this is regarded as one of the best fishing areas in Peru.

It is estimated that, at present, almost half of the annual Peruvian fish catch, calculated at approximately 30,000 metric tons, is available for export in processed form, a quantity which should increase as fishing activities are intensified.

Despite the planned local utilization of fish livers for the production of vitamins and related medicinal products, it is considered that fairly important quantities of livers will be available for export. The outlook is promising, particularly for crude fish oil, the industrial application of which is very limited in Peru, both because of quality and price considerations and because Peru is a cottonseed oil producer. The small quantities of fish meal turned out at present are needed in the country in view of the scarcity of feedstuffs and fertilizers. Unless the fish meal output is increased substantially, there will be little for export.

