Angola (Portuguese West Africa)

FISHING INDUSTRY, 1948: Production: Angola's fisheries reported increased yields during 1948, as compared with the preceding year, permitting a larger exportable surplus, according to a July 25 report from the American Consulate at Luanda.

Exports: The colony's exports of its principal fishery products in 1948 have increased considerably. The largest increases were in fish meal and dried fish (See table).

Angola's Exports of Principal Fishery Products, 1944-48

Commodity	QUANTITY (in pounds)					VALUE (in U. S. Dollars)				
	1948	1947	1946	1945	1944	1948	1947	1946	1945	1944
Fish:										
Fresh	367,292	330,381	449,915	544,852	390,621	29,234	23,661	23,850	31,583	21,493
Dried	30,430,400	17,842,904	22,384,927	23,145,362	22,497,504	2,096,890	1,183,695	1,239,489	1,084,331	1,009,307
Canned	3,823,600	2,862,671	5,149,813	3,212,618	1,744,895	897,880	519,952	985,048	638,285	374,296
Total Fish	34,621,292	21,035,956	27,984,655	26,902,832	24,633,020	3,024,004	1,727,308	2,248,387	1,754,199	1,405,096
Byproducts:										
Fish Meal	31,242,200	14,684,696	16,342,988	14,415,883	20,672,784	1,617,202	550,824	307,491	237,699	320,654
Grand Total of Principal Fishery Products	65,863,492	35,720,652	44,327,643	41,318,715	45,305,804	4,641,206	2,278,132	2,555,878	1,991,898	1,725,750

NOTE: Values converted on the basis of 24.765 angolares equal $1.00 U.S.

Australia

ELECTRIC LAMP USED TO SEINE PILCHARDS: A group of Australian fishermen from Port Phillip Bay, Victoria, are using a powerful light at night fishing for pilchards, according to the August 1949 Fisheries Newsletter of the Commonwealth Director of Fisheries.

The method is to attract the fish around a powerful light at night, and then encircle them with a large net of the purse-seine or lampara type. It is effective only when there is not much moon.

Boat equipment consists of a 32-ft. vessel of 21 hp., which tows two dinghies to a likely fishing area. A wooden stand with two 1000-candle-power electric lamps and reflector is then assembled and put into one dinghy, which has anchored some distance from the other boats. One man stays in it to watch for signs of fish. Electricity is provided by a generator which is belt-driven from the engine of the large boat through a cable which is buoyed to float on the water. Meanwhile, the net is made ready for shooting in the other dinghy. After an hour or two, fish may be observed densely congregated around the lights. The watcher, when he thinks there are reasonable prospects of a good catch, signals the second dinghy. The latter is then quietly rowed around the school encircling the fish with the net.

The net is a small purse-seine of 1/2-inch mesh webbing, 110 fathoms long and 17 fathoms deep. Because pursing has to be done by hand with only four men, it is lightly leaded for a purse seine. When the lights are used, the fish are so attracted that they ignore or do not realize their danger until too late. The darkness also conceals the other boats. The net is pursed and hauled entirely from the dinghy. When pursing is complete, the "light boat" is rowed out of the circle of netting.

This type of fishing was begun at the end of April this year and is being continued. There have been no failures and the average haul has been about one ton of fish, with the largest catch over two tons. Pilchards and anchovies have both been taken, sometimes together, but usually separate. Various sizes of pilchards have been obtained, the average length being about six inches over-all.

It has been known for some time that pilchards and anchovies are in Port Phillip Bay at all times of the year, but the pilchards seem to go down deep in winter. It is hoped that it will be possible to lure them to the surface with the lights and continue operations all the year round.

These same fishermen were fishing for anchovies in Port Phillip for several years. Since there are only limited sales for anchovies and believing that canneries might be more interested in larger fish, like pilchards, this group of fishermen decided to fish for pilchards. After trying meshing nets with very unencouraging results, they decided to try to attract the fish with a light. They believe that this technique could probably be developed much further.

Although one canner in Western Australia is already packing pilchards, there is still no real demand for pilchards from Victorian or interstate fish canneries; however, it is hoped that the canners will soon utilize these fish.

Bahama Islands (British West Indies)

SPONGE FISHING PROHIBITED INDEFINITELY: On September 30 the Colonial Government issued an order which prohibits entirely the taking of sponges throughout the Colony until further notice, according to an October 5 report from the American Consulate at Nassau. This step is considered essential to the interests of the industry and the Government. (See Commercial Fisheries Review, July 1949, page 34.)

Canada

British Columbia Whaling Catch and Byproducts, May through mid-September 1949

Species	Number	Products	Quantity
Sperm	69	Meal	1,806,500 lbs.
Humpback	70	Bone meal	29,500 "
Finback	106	Whale oil	269,000 gallons
Sei	3	Sperm oil	120,000 "
Blue	2		
Total	250		

BRITISH COLUMBIA WHALING OPERATIONS, 1949: The British Columbia whaling station captured 250 whales this season (May through mid-September 1949), compared with 182 a year ago (See table). The company operating the station used three

whaling vessels, according to an October 14 report from the American Consulate General at Vancouver.

Most of the meal was sold in the United States where it is used as cattle food. Prices are reported to have been approximately $150 per ton.

Prices for whale oil ranged between six and ten cents per pound and practically the entire production was sold in the domestic market to two principal soap producers.

No ambergris was obtained from the whaling operations. The whale meat was processed with cereals and the finished canned product sold as a pet food.

* * * * *

CONSUMPTION OF FISHERY PRODUCTS (EDIBLE WEIGHT), 1948: Introduction: The per capita consumption of fish in Canada during 1948 amounted to 12.2 pounds, on an "edible weight" basis, an increase of 3/4 of a pound per person over the figure for the previous year (see Table 1), according to the September 1949 Canadian Fisheries Department Trade News. This advance coincides with that registered in the United States for the same period. In Canada the increase of fish consumption in 1948 affected chiefly the canned products. Because of constricting outlets in export markets, producers of canned fish promoted sales on the domestic market. An increase in the domestic supply of fresh and frozen fish, on the other hand, was retarded by the diversion of a larger share of the groundfish catch, particularly, from the fresh and frozen form to the production of salted products for export, and by larger exports of fresh and frozen salmon. Thus the Canadian picture is slightly different from that of the United States where the increase in fish consumption was attributed to "the greater availability and consumer acceptance of frozen products in the Middle Western cities as well as the increased availability of canned fish".

Table 1 - Canadian Per Capita Consumption of Fishery Products (Edible Weight), 1945-48

Marketed Forms	1948[1]	1947	1946	1945
	lbs.	lbs.	lbs.	lbs.
Fresh and Frozen:				
Sea fish, rnd. or drsd. ...	2.4	2.8	3.0	3.2
Sea fish, filleted	2.0	1.7	2.7	2.0
Fresh-water fish	0.7	0.7	0.8	1.0
Shellfish	0.3	0.2	0.3	0.3
Total	5.4	5.4	6.8	6.5
Cured:				
Smoked	0.8	0.7	0.7	0.7
Pickled (in brine)	0.4	0.4	0.5	0.5
Salted and dried	0.8	0.8	0.8	0.5
Total	2.0	1.9	2.0	1.7
Canned	4.8	4.2	3.1	1.7
Grand Total	12.2	11.5	11.9	9.9

1/Preliminary figures.

Canned Fish: The consumption of canned fish in Canada increased from 4.2 pounds in 1947 to 4.8 pounds per capita in 1948 due mainly to an increase in the consumption of canned sardines. More canned salmon also was consumed. The 1948 figure for all canned fish surpassed that of 1939 by 1/2 pound per person.

Fresh and Frozen Fish: The consumption of fresh and frozen fish, at 5.4 pounds per capita in 1948, was the same as in 1947. More fresh and frozen cod, haddock and flatfish was consumed in 1948, but a substantial decrease occurred in the consumption of fresh and frozen salmon. The per capita consumption of fresh and frozen products in the last two years has been substantially lower than in 1945 and 1946. It appears that the large availability of canned fish

during the last two years has brought about some shifting in Canadian fish consumption from the fresh and frozen form to the canned product.

Cured Fish: The consumption of cured fish was 2 pounds per person in 1948, which was about the same as in previous years.

Comparison With Other Protein Foods: Although the consumption of fish has increased in 1948, it is still low in comparison with the per capita consumption of other animal proteins (see Table 2). The increased consumption of fish, however, is probably related to the drop in the consumption of meat and poultry last year. The high prices for meat and poultry in Canada during 1948 may have induced consumers to purchase more fish. However, the increase in the consumption of fish was far from being equivalent to the drop in that of meat and poultry.

Table 2 - Canadian Per Capita Consumption of Meat, Poultry, Eggs, and Fish

Commodity	1948	1947	1946	1945	Prewar (1935-39) Average
	lbs.	lbs.	lbs.	lbs.	lbs.
Fish (edible wt.)	12.2	11.5	11.9	9.9	11.9
Meat (carcass wt., generally)	135.3	146.0	145.5	141.7	118.4
Poultry (dressed wt.)	19.1	24.8	21.8	25.9	18.4
Eggs (fresh egg equivalent) .	35.1	36.1	33.2	33.7	30.7

Consumption by Species: SALMON: About 51 million pounds of salmon were consumed in 1948, accounting for almost a third of the total quantity of fish consumed in the country. The consumption of canned salmon amounted to 38.8 million pounds, or slightly more than 800,000 cases (48: 1 lb). This exceeded the previous year's figure. Canned salmon alone accounted for almost 25 per cent of all fish going into the Canadian diet. The quantity of fresh and frozen salmon consumed in Canada was 11.8 million pounds in 1948—3.1 million pounds less than in 1947. The drop was due to reduced production in this form last year and to somewhat larger exports.

COD: This species contributed 32.7 million pounds to the Canadian consumption of fish in 1948, 1 million pounds higher than in the previous year, and amounted to 20.9 percent of the total fish consumption. More cod was marketed as fresh or frozen, dressed and filleted than in 1947. Exports of these products were also substantially higher but the retention of cod fillets in Canada (12 million pounds) showed an increase of 600,000 pounds over 1947. The production of salted cod in 1949 (44.3 million pounds, dried weight) was considerably higher than in the previous year. As usual the bulk of the salted product was exported but the retention on the domestic market reached 10.4 million pounds, (9.9 million pounds in 1947). The smoked cod consumed amounted to 6.6 million, which was about the same as in the previous year.

HADDOCK: The catch of haddock was high in 1948. Notwithstanding higher exports, this increased production contributed to a rise in domestic consumption, which reached 9.6 million pounds last year as compared with 6.4 million pounds in 1947. Consumption of fresh and frozen fillets of haddock amounted to 7.2 million pounds, 2.6 million pounds more than in the previous year. More than half a million pounds of smoked haddock were consumed domestically in 1948, nearly twice the 1947 figure.

HERRING: The quantity of canned herring and sardines retained for domestic consumption in 1948 amounted to 15 million pounds as compared with 10.6 million pounds in the previous year. The major increase occurred in the consumption of

canned sardines of which there was a heavy pack in 1948. With reduced export outlets, more than 50 percent of a total production in the vicinity of 850,000 cases (100:3-1/2 oz.), was disposed of on the domestic market. Nearly 65 percent of the canned herring consumed in Canada was derived from the sardine pack. About 2.9 million pounds of fresh and frozen herring and 4.0 million pounds of pickled herring of various types were also consumed in Canada in 1948. These quantities are about equal to those for the previous year.

HALIBUT AND OTHER FLATFISH: In 1948, 5.2 million pounds of halibut were disposed of on the domestic market, i.e., 1.2 million pounds more than in 1947. A substantial increase in the production of fillets of sole, plaice, etc., occurred last year. Even with exports at a higher level, almost 2 million pounds of these other flatfish were retained on the domestic market, as compared with 1.5 million pounds in 1947.

LOBSTER AND SHELLFISH: Only 18 percent of the fresh lobster and 26 percent of the canned product was retained for domestic consumption. Increased production of these products in 1948 is reflected in higher exports for that year. The quantity of fresh lobster actually consumed in Canada was about 1.1 million pounds; canned lobster about 0.7 million pounds. In addition, some 2.5 million pounds of other fresh shellfish were consumed—0.7 million pounds more than in the previous year.

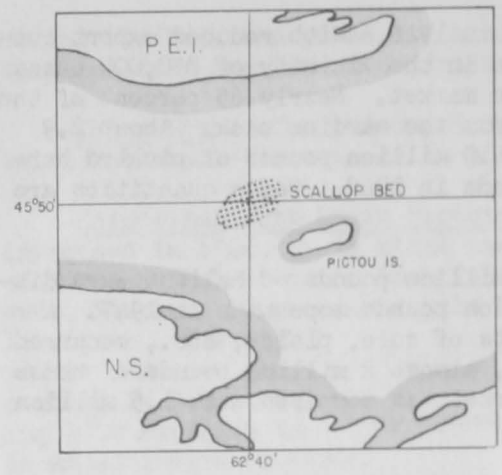
OTHER SEA FISH: The consumption of other sea fish amounted to 20 million pounds in 1948, as compared with 16.6 million pounds in 1947. The Pacific coast species--lingcod, graycod, sablefish and the rockfishes--provided 2.8 million pounds of fresh and frozen products and 1.2 million pounds of smoked products for Canadian consumers. This was some 1.7 million pounds greater than for the previous year when the lingcod and sablefish fisheries experienced a very poor yield. A total of 6.5 million pounds of fresh and frozen smelts, swordfish, mackerel, catfish and rosefish was retained on the domestic market in 1948—1.7 million pounds less than in the previous year.

The consumption of canned fish and shellfish--other than the salmon, lobster, herring and sardines mentioned--reached 6.7 million pounds in 1948, an increase of 3.1 million pounds over the 1947 figure.

FRESH-WATER FISH: The consumption of fresh-water fish in 1948 is estimated at 9.0 million pounds which is very close to that of the previous year. The main species consumed are, in order of importance, whitefish, pickerel, pike, lake trout, and ciscoes.

NEW SCALLOP BED IN NORTHUMBERLAND STRAIT: Further information on the new scallop bed near Pictou Island in Northumberland Strait (between Prince Edward Island and Nova Scotia) has now been released by the Fisheries Research Board of Canada, according to the September 1949 issue of the Trade News. This bed may be described as elliptical in contour with the long axis, or the length of the bed itself, running north-east and south-west. The heaviest concentration of scallops, according to findings of the Fisheries Research Board investigators, is at the western end of the bed. From the exploratory hauls made, it is expected that from two to six bushels will be brought up in a 15-minute drag.

NOTE: See Commercial Fisheries Review, October 1948, pp. 37-39, for 1947 detailed data.



STIPPLED AREA INDICATES LOCATION OF NEW SCALLOP BED.

The discovery was made by the Della May, a Digby scallop dragger presently under charter to the Board for exploration of scallop resources of the southern Gulf of St. Lawrence.

At the same time, legislation has been put into effect, allowing scallop fishermen in that region to take scallops less than the four-inch minimum size limit which is in effect in the other scallop areas. In view of the fact that a considerable proportion of the scallops are just below the four-inch size and also that the fishery in the Gulf is not intensive and heavy natural mortalities are frequent, the size limit was withdrawn.

* * * * *

DIGBY SCALLOP PRODUCTION DECLINES: The Canadian production of scallops from the beds in the Bay of Fundy area off Digby, Nova Scotia, has been declining rapidly in recent years, according to an October 28 report from the American Consulate General at Halifax.

As many as 100 draggers used to operate out of Digby; and as recently as 1936, 15 vessels were based in the port of Centreville, where so far this year one dragger has been fitted out. Only 20 boats were fitted out during the 1948-49 season, and the Canadian Fisheries Board conducted an intensive survey in an attempt to assess the industry's prospects. On October 1 of this year (the opening date of the local 1949-50 scallop season) 14 draggers had been licensed to operate out of Digby and Annapolis counties--the lowest number of vessels to be licensed since the early days of the industry.

The principal scallop grounds fished are located on Quero Bank. Scallops in the area have been dwindling in numbers and size to the extent that profitable beds are found each year at progressively greater distances from the base ports.

However, an unexploited source of scallops has been discovered by the Canadian Fisheries Board during its exploration of scallop resources in the southern Gulf of St. Lawrence which may offset this decline.

* * * * *

EFFECT OF DEVALUATION ON BRITISH COLUMBIA FISHERIES: The devaluation of the Canadian dollar and the English pound on September 20, 1949, will materially affect the external trade of British Columbia, and in some instances domestic trade as well. While it is too early to forecast with accuracy the net results of the devaluation, most business men and Government officials believe that business in British Columbia in general should benefit slightly, according to an October 7 report from the American Consulate General at Vancouver. While the premium on American funds will assist exporters of fish oil and meal, which are marketed chiefly in the United States, exports of canned salmon which are shipped for the most part to countries within the sterling bloc are expected to decline. The United States may expect greater imports of British Columbia lumber, fish, fish oil and meal and a reduction in its exports of manufactured articles and an increase in its exports of fruit and produce to the Canadian market.

Dominican Republic

PROGRESS OF EXPERIMENTAL FISHING:[1/] Experimental fishing in Dominican waters by a commercial fishing company financed by United States private capital produced results which appear to be encouraging, according to an October 26 consular report from Ciudad Trujillo. Organized last May as a Dominican corporation, it has been operating chiefly in Samana Bay, where prospects for the eventual development of commercial fishing were reported to be particularly good; also operated in the vicinity of Saona Island, off the southeast end of Hispaniola during recent weeks.

Company plans to move its operations to the South Coast to carry on experimental fishing, with Ciudad Trujillo as a base. One of the company's vessels (a 72-ton motor-powered fishing vessel) is expected to arrive shortly from Miami, where it has been sent for outfitting and repairs. It will carry a number of small inboard motor boats.

In the Samana Bay area, a variety of equipment and experimental methods were used which probably had never been used before in Dominican waters. Fishing reportedly was chiefly for scale fish. Satisfied that there is an abundance of spiny lobsters and shrimp, the company feels that if marine fin fisheries fail to meet expectations, operations can be concentrated on lobster and shrimp.

In the areas fished thus far, apparently the sea bottom will make it difficult to use heavy trawls. According to one member of the group, experiments indicate that the company may find it desirable to turn to lighter equipment. Company's fishermen have been using seines chiefly in their experimental fishing for scale fish in the Samana Bay area. No attempts thus far have been made to market or to develop methods of storing and distributing the catch commercially. If commercial operations are undertaken, the use of cold storage is contemplated, but there seems to be some interest also in examining possibilities of salting the catch.

One feature of the company's operations consists of extending financial assistance to Dominican fishermen, supplying them with equipment, and using the information gathered this way in connection with the sampling techniques which the company is using.

Recently, the Dominican government has shown special interest in assisting the company in its activities. It is understood that official assurance has been received by the company that it can use its United States-registered fishing vessels in the various ports of the Republic without the restrictions which would ordinarily apply in the case of foreign-flag vessels.

German Federal Republic

FISH LEATHER PRODUCTION STOPS: By mid-1949 the tanning of fish skins in Germany ceased almost completely due to the lack of consumer interest in articles made of fish skin, according to an October 19 report from the American Consulate at Bremerhaven. Increased imports of hides and skins have stopped the fish leather industry begun during the 1930's. In Bremerhaven, fish leather began to be produced on a large scale in 1936. The market for fish leather collapsed after Christmas and so far has shown no signs of recovering.

1/See Commercial Fisheries Review, August 1949, pp. 35-36.

Maximum Bremerhaven production of fish leather was about 2,990 square yards or somewhat more than 60,000 skins monthly. The skins were obtained at little cost from the local filleting factories. For the most part, the skins of cod, coalfish, (pollock) and ling were processed, each type being especially suited for particular applications. Ling yielded the largest and toughest leather, and cod and coalfish were valued for their fine pebbling. To increase the possible uses of fish leather, the Bremerhaven factory coated and pressed the cured leather so as to make it resemble crocodile, snake, or lizard skin. Under present conditions, fish leather can be produced at a cost of about 40% of the cost of good quality cow leather.

Having been forced to buy many unsuited leather substitutes during the past 15 years, the German consumer now wants genuine cowhide, pigskin, etc., rather than substitutes. The small size of the individual pieces of fish leather (usual width about 10 inches) limits the uses to which fish leather can be put, and increases the cost of fabricating large articles. In addition, the fish filleting plants have not shown a great interest in delivering skins of uniform thickness, and most of the skins processed either had holes or thin spots.

HERRING TRAWLERS TO FISH FOR "FRESH FISH": With regard to the import of fresh fish from Iceland, the German trawler owners as a group have decided to start in October to reconvert their trawlers from herring fishing to the catching of "fresh fish", states an October 17 report from the American Consulate. After the expiration of the present Icelandic contract on October 31, it is hoped that the German trawlers will be able to provide the fresh fish to fill the demand. If so, Iceland will not receive another contract.

The fresh fish catches of the German trawler fleet in 1949 are estimated at 160,000 metric tons, as compared with 142,000 in 1948. In 1948, an additional 107,000 tons of herring were landed. In 1950, the German trawler owners expect to land close to 175,000 metric tons of fresh fish.

RETAILING OF FROZEN FISH IN GERMANY: One aspect of Germany's improved economy has been the introduction this summer of household-size packs of frozen fish fillets in many fish stores of Western Germany, according to a September 19 report from the American Consulate. The frozen food industry in Germany is being developed to a large extent by two firms--one dealing in fish and the other in fruits and vegetables. The firm dealing in fish has a chain of 170 retail stores throughout Germany and Austria. Recently a Hamburg firm and a Bavarian firm also started freezing fish for retail stores.

The price of the frozen fish fillets is about 36 percent above the price for the same weight of fresh fish. Fresh fish may now be sold to the consumer for DM 0.90 per kilogram, (approximately 12 cents a pound) while comparable frozen fillets cost DM 1.40 per kilo (approximately 19 cents a pound).

Local fishery circles do not expect the frozen fish consumption to become very large in Germany in the near future; at the present time less than 5 percent of the sea fish landed in Germany is frozen. The higher cost of frozen fish, the paucity of distribution and retailing facilities for frozen foods generally, the relative proximity of the consuming centers to the ports, and the relatively long time the fish remain in ice on shipboard all diminish the prospects of establishing a large-scale, profitable frozen fish industry. Fish are frozen in Germany more to stabilize the market by preventing gluts and scarcities than to appeal to the housewife.

NOTE: Value conversions based on official rate of exchange of 1 Deutsche mark equals U. S. $0.30 (before devaluation).

ROSEFISH FISHERY CONTEMPLATED: German trawlers are expected to devote increasing attention to the catching of rosefish (Sebastes norvegicus Asc.) as a result of recent investigations by the Biologische Anstalt Helgoland, the fisheries research institute financed by the German federal government, according to an October 24 report from the American Consulate. These investigations led to the conclusion that the reproductivity of the rosefish like that of the herring is so large that overfishing is virtually impossible.

The variation in catches on particular grounds is attributed to a normal migration of the fish in search of food, warmer water, etc. It is suspected, though not proved, that the rosefish spends only a part of its life on the ocean bottom and that the rosefish can be found at other times in free-swimming schools in open water.

Rosefish will at some future time be as important a fish as the herring, according to members of the Biologische Anstalt Helgoland.

Greenland

FISHING OFF GREENLAND INCREASING: Portuguese fishing vessels have been numerous on Greenland fishing grounds this summer, according to an Icelandic newspaper report in Fiskets Gang. Five or six vessels were operating off Faeringhavn, serving as motherships for small boats which fished with one man each. Each mothership had about 20 small boats. Portuguese do not have the right to land in Greenland and apparently found it unnecessary as the motherships were large and equipped with stores for five months.

In addition, a delegation from the Faeroe Islands recently arrived in Faeringhavn to examine the possibilities for installing a land station and factory as a basis for an expanded Faeroe Islands fishery on Greenland's west coast, according to the Danish newspaper, Berlingske Tidende.

Indonesia

IMPROVEMENT OF FISHERIES PROPOSED: A welfare conference held at Buitenzorg, Java, on August 8-10, 1949, attended by representatives of the principal political and administrative subdivisions of Indonesia, including the Republic, resulted in the drafting of a Special Welfare Plan for 1949. The purpose of this conference seems to have been to present to the Round Table Conference and to the new government to be established as a result of that Conference, a plan for the improvement of production facilities, including fisheries, according to a September 23 report from the American Consulate General at Batavia, Java. The proposed plan includes plans for improvement in agriculture and fisheries.

The plan envisages the improvement of fish breeding and preservation methods through intensified research and information. This is expected to add 22 million pounds of fish from rice ponds in Java. Borneo too is seen as capable of a greater production of fish.

By the granting of credits for the construction of fishing boats, it is hoped to increase the production of sea fishing enterprises. Sea fish production in 1948 amounted to about 506 million pounds and improvement of facilities is expected to yield an additional 66 million pounds of fish.

It is hoped that inland fish production can be increased to 374 million pounds per year and that of sea fish production to 990 million pounds, within a few years. In this way the current purchases of fish from abroad at a cost of about $2,280,000 may not be necessary.

NOTE: Value converted on the basis of the exchange rate (prior to devaluation) of one Dutch florin equals $0.38 U. S.

Italy

ITALO-DANISH TRADE AGREEMENT INCLUDES FISHERY PRODUCTS: A new Italo-Danish trade reciprocity agreement went into effect on July 1 this year taking the place of a similar agreement which had expired last May, according to the September 1949 Canadian Fisheries Department Trade News. During the year of its operation, Italy is to receive from Denmark heavy-salted dried fish valued at $7,092,400 and slack-salted dried fish worth at least $1,251,600. Maximum prices included in the agreement are (in cents per pound): heavy-salted: cod 15.6, saithe 8.5, other 11.1; slack-salted fish, 24.5.

The total quantity involved is about 45 million pounds of heavy-salted and about 5 million pounds of slack-salted fish, less than half of Italy's total imports of salt fish last year. Under the agreement business will be transacted at special exchange rates which will reduce the amount to be paid by the Italian importer in his own currency to perhaps not much more than half of what he would have to pay for fish at nominally the same price from a dollar country. It will therefore be quite impossible for fish from dollar countries to compete with the Danish product on a price basis.

Japan

DAMAGE TO FISHERIES BY SEPTEMBER TYPHOON: The Japanese Fisheries Agency submitted a report to SCAP on the damage to the Japanese fisheries and effect on production of the typhoon "Kitty" which struck Japan early in September, according to the September 10 report from SCAP's Natural Resources Section. An estimated total damage of ¥1,300,000 ($3,611,000 1/) was suffered by the fishing industry in the coastal prefectures extending from Shizuoka northward to and including Hokkaido. Severest damage to ports and shore facilities was in the prefectures of Kanagawa, Shizuoka, and Chiba. Of the total estimated damage, 58 percent was to fishing ports or harbors, 21 percent to fishing gear, such as nets, 7 percent to fishing boats lost or damaged, and the remaining 14 percent to property, such as warehouses, markets, and other shore facilities. Total loss of catch is estimated at 19,745,000 kan (163,232,000 pounds). Most of this anticipated decrease in production is due to loss of fishing gear and is expected to be in Hokkaido (13,600,000 kan) (112,431,200 pounds), Chiba (3,800,000 kan) (31,414,600 pounds), and Shizuoka (900,000 kan) (7,440,300 pounds). Relief funds

1/ Converted on basis of 360 Japanese yen equal $1.00 U. S.

will be needed for repairing port facilities, purchasing fishing gear, and rebuilding and repairing fishing boats in order to resume operations.

FISHERIES COOPERATIVE PROGRAM MAKING PROGRESS: Since the fisheries cooperative legislation enacted on November 27, 1948, by the Japanese Diet,[1/] Japanese fishermen have been giving careful deliberation to the formation of cooperatives and the privileges granted them under the law, according to the September 17 Weekly Summary of SCAP's Natural Resources Section. By August 1, 1949, fishermen in practically every fishing village in Japan had taken the initial steps to form cooperatives, and there is every indication that by the end of 1949 at least 5,000 cooperatives with a total membership of more than one million will have been formed. A recent investigation of 15 representative villages disclosed that 46 cooperatives had been formed prior to August 1, 1949. These cooperatives had 43 percent more members than the old associations in the same villages before their dissolution. Less than 25 percent of the officials of the new cooperatives were officials of the old associations.

The cooperative program is a major step in the democratization of the Japanese fishing industry. However, the ancient system of fisheries rights and its attendant abuses of absentee ownership, concentrated holding, and vestiges of feudalism must be reformed before this democratization is complete. The necessity for reform has long been recognized by SCAP and advice and guidance have been provided the Japanese Government in preparing a reform law. This law is now awaiting Diet action. At present, reactionary elements in the fishing industry are exerting considerable pressure to prevent its passage.

PORPOISE AND DOLPHIN FISHERY, 1948: More than 100 licensed vessels (most of them under 100 gross metric tons) operate in the porpoise and dolphin fishery, which is known in Japan as "small-type whaling." Each vessel is armed with a gun less than 50 millimeter in inner diameter, according to the October 8 Weekly Summary. Owned and operated by about 50 companies, these ships are permitted to take minke whales (Balaenoptera acutorostrata), beaked whales (Beradius bairdii), killer whales (Orca gladiator), pilot whales (Globicephalus melas and G. scammoni), false killers (Pseudorca crassidens), and several other types of dolphins and porpoises. The killing of sperm, sei, blue, and fin whales by operators of these vessels is prohibited by Japanese law.

Table 1 - Japanese Catch of Small-Type Whaling, including Number of Companies and Vessels in Operation, 1948

Item	No.
Enterprises	43
Boats operated	61
Type of whales captured:	
Minke	285
Beaked	76
Killer	48
Pilot[1/]	725
Others	40
Total catch	1,174

1/Includes false killer.

Vessels operate from about 16 stations scattered from Kyushu to Hokkaido, often making use of large-type land stations for processing the catch, and in other instances using separate stations. Neither seasonal limit on operations nor length limits have been imposed in the past.

During 1948, 61 vessels operated by 43 companies took 1,174 whales. Because the vessels prior to 1948 were licensed by prefectures rather than by the central government, no accurate statistics are immediately available for the earlier years.

1/See Commercial Fisheries Review, September 1949, page 30.

Most of the oil extracted from blubber and bones, except that from the minke, is used as lubricant, and the head oils are used for lubrication of watches and other precision instruments. The head oil of the pilot whale is considered particularly valuable for this purpose. The government-controlled price for unrefined head oil is ¥96,000 (about $266) per metric ton. Some of this oil gets into illegal channels where it commands prices of $550 to $650 per metric ton.

Table 2 - Products of Japanese Small-Type Whaling, 1948

Product	Metric Tons
Meat, edible	1,010
Blubber, edible .	373
Oil	76
Miscellaneous ...	243
Total	1,702

JAPANESE GOVERNMENT

Nicaragua

PRESENT AND POTENTIAL SHRIMP FISHERY: Regarding the present and potential shrimp fishery in waters off Nicaragua, a September 14 report from the American Embassy at Managua states that the only concern known to have engaged in commercial shrimp fishing in this country was a company formerly engaged in fishing on the east coast of Nicaragua, principally for shark livers. This company was apparently entirely owned by Americans, and reportedly had some connection with a company in the United States.

The company had a contract which had been approved by the Nicaraguan Government under which it agreed to invest certain sums in Nicaragua, to employ at least 75 percent Nicaraguan citizens, and to return a certain percentage of its dollar income to Nicaragua. In return it was given the right to fish in Nicaraguan territorial waters.

The company was principally engaged in obtaining shark liver oil. This operation was intended to pay their expenses, and the profits were expected to come from shrimp and spiny lobster fishing and consequent sales in the United States. It is understood that the company engaged in experimentation with a view to locating the shrimp beds on the east coast of the country. The first results of those investigations were understood to have been promising. However, their shrimp operations were small, and the most produced was 65 pounds in one week's operations.

The company stopped operations several months ago, allegedly because of the discovery of a synthetic means of producing vitamin A and the consequent drop in the price of shark liver oil. Shrimp and spiny lobster fishing were not considered to be sufficiently profitable to justify continued operations. All of the facilities which the company had operated (included at one time a refrigerator barge of 341 gross tons; 5 50-foot purse-seine-type shark boats of 20 gross tons; 2 Bahama-Island lobster boats; 1 60-foot shrimp trawler) have been withdrawn from Nicaraguan waters with the exception of the trawler.

Two American citizens, now residing in Nicaragua, have been interested in taking over the trawler and operating a spiny lobster and shrimp fishery on the east coast of Nicaragua, selling the products principally in the United States. Very little is actually known concerning the potentialities of shrimp fishing in Nicaraguan waters, but these Americans have been investigating the situation for the past two to three months. While they at first appeared encouraged, it is now understood that apparently the trawler is not in good condition, and that they may not wish to take it over.

Norway

FINNISH-NORWEGIAN TRADE AGREEMENT: The annual Finnish-Norwegian trade agreement was signed in Oslo, Norway, on October 20, 1949, according to an October 28 report from the American Legation at Helsinki, Finland. Trade amounting to 32.5 million Norwegian kroner (approximately $4,550,000) will be covered by the agreement, which will be in effect November 1, 1949 to October 30, 1950.

Norwegian exports to Finland will include 150,000 kroner ($21,000) of vitamin A concentrates; and the following, in metric tons: herring and dried fish 10,900, fish and whale oil 550, whale fat 2,000, and other non-fishery products.

No fishery products are included in the commodities listed for export from Finland to Norway.

* * * * *

HERRING MEAL PRODUCTS: At a meeting recently held at Sola by the Norwegian Herring Oil and Herring Meal Manufacturers' Association, it was agreed to establish an experimental factory for production of new herring meal products, according to a September 30 report from the American Embassy at Oslo. This factory would work in close cooperation with the industry's laboratory in Bergen. Financing of the project has been completed and the greatest remaining problem is to find a site in or near Bergen suitable for the construction of the factory.

TUNA FISHERY: The catch of bluefin tuna off the Norwegian coast has occasioned considerable comment in Bergen, according to a September 30 report from the American Embassy. It is predicted that the value of this year's catch would total between 3 and 4 million kroner (approx. $420,000-560,000). As tuna fishing requires special gear, only some 20 boats have been engaged in this type of fishing, chiefly off the Helgeland district. Catches are reported to be heavy with one boat alone catching tuna worth 100,000 kroner (approx. $14,000) in four days.

The principal export market is said to be Italy where tuna is very popular.

A local Norwegian sardine cannery is seriously thinking of starting to pack tuna, and it would not only be profitable but would enable the firm to keep its workers employed for a considerably longer period each year than is now possible. (The seasonal character of sardine cannery employment presents a very difficult problem to employers, cannery workers and many communities.)

* * * * *

PLASTIC FROM FISH WASTE: A Bergen firm has been experimenting with the production of plastic from fish waste. According to newspaper reports, the firm has been making such a product at a plant near Bergen since the beginning of the year. Results are said to have been so good that the company is to expand production, using its cannery in Moskenes, Lofoten, for this purpose. Estimated production is from 8,800 to 11,000 pounds a day.

NOTE: Values in dollars converted on basis of 7.14 Norwegian kroner equal $1.00 U. S.

Republic of the Philippines

REVIEW OF THE FISHERIES, 1948: Production: The Philippine Government has estimated the total fish production in the year 1948 from commercial, fish pond, and municipal and sustenance fisheries at 429,000,000 pounds, compared with 575,080,000 pounds in 1947 and 594,000 pounds in 1940, according to an August 12 report from the American Embassy at Manila (see table).

Philippine Production of Fishery Products, 1948, 1947 and 1940 (Extimated)1/

Item	1948	1947	1940
	lbs.	lbs.	lbs.
Production from:			
Commercial fishing boats (of at least 3 M.T.)	92,400,000	138,600,000	251,900,000
Fish ponds	50,600,000	67,760,000	44,660,000
Municipal and sustenance fisheries	286,000,000	368,720,000	297,440,000
Totals	429,000,000	575,080,000	594,000,000

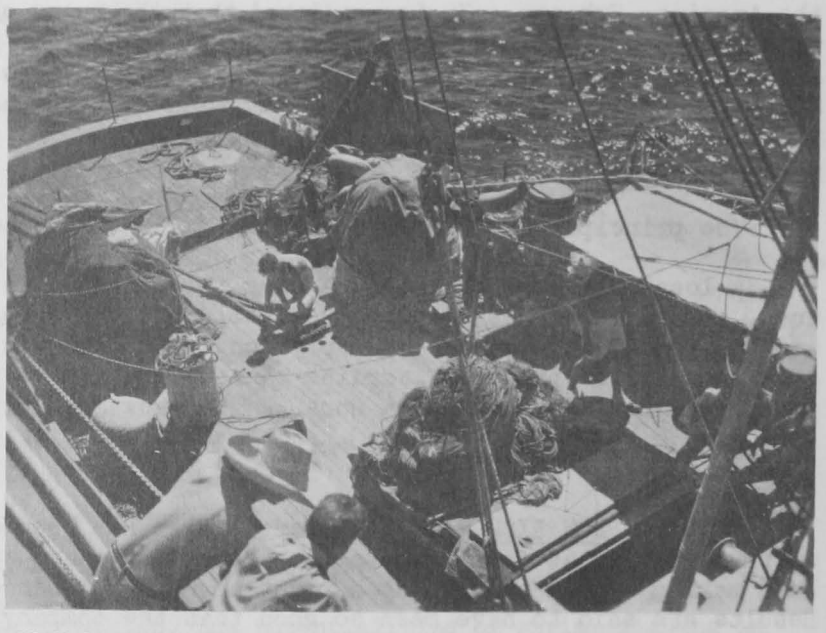
1/Does not include gathered fishery products, such as shells, trepang, coral, etc.

The biggest proportion of the 1948 catch was produced by municipal and sustenance fisheries (286,000,000 pounds), followed by commercial fisheries (92,400,000 pounds), and fish ponds (50,600,000 pounds).

The commercial catch of fishery products in the Philippines in 1948 totaled 92,400,000 pounds (valued at $28,766,891), compared with 138,600,000 pounds (valued at $42,340,780) in 1947. There were 469 commercial fishing boats operating in 1948, compared with 504 in 1947. Part of the decline in the commercial catch in 1948 was due to the fact that fewer vessels were operating in that year.

Processed fish production in 1948 amounted to 12,592,727 (valued at $3,692,760), compared with 41,287,957 pounds (valued at $15,273,471) in 1947. This decline in processed fish is due to the lower commercial catch.

In 1948, there were 445 licensed fish ponds with an area of 23,687 acres, which is an increase over 1947 when 323 ponds with 14,801 acres were in operation. However, in spite of the increase in ponds and acreage the production from this fishery in 1948 was only 50,600,000 pounds, compared with 67,760,000 pounds in 1947.



DECK OF THEODORE N. GILL SHOWING SHARK LONG-LINE GEAR. THE VESSEL IS ONE OF THREE EXPLORATORY VESSELS OF THE U.S. FISH AND WILDLIFE SERVICE'S PHILIPPINE FISHERY PROGRAM.

Prices: At the close of the first half of 1949, the retail prices in Manila for sea bass (apahap) and milkfish (bangos) per pound were 64 cents and 49 cents, respectively, compared with 20 cents and 11 cents in 1941.

Ever since the war, the ratio of fish production to demand has been such as to sustain prices at a relatively higher level than most other commodities due to the fact that fish ranks second to rice as an essential of the lowest income groups.

Foreign Trade: A commercial summary of incoming manifests shows 23,100,000 pounds of fishery products imported during the first half of 1949 of which 11,660,000 pounds were canned sardines. The indicated level of imports is about the same as for the second half of 1948, when imports of fishery products amounted to more than 24,200,000 pounds, valued at $4,200,000.

Exports of salted, smoked, and dried fish during 1948 amounted to 358,400 pounds; and for the first half of 1949, 181,440 pounds.

Deep-Sea Fishery: The deep-sea fishery operated by the Japanese before the war has not been fully revived. In June this year (shortly after the discontinuance of reparations from Japan), it was reported that SCAP would seek the agreement of the Philippine Government to an adjustment of sea boundaries so that Japanese fishing fleets might operate in what are now Philippine waters. There was an immediate negative reaction in the Philippines. However, few local businessmen with substantial capital have shown interest in filling the gap left by the Japanese in the offshore fishing industry.

Depletion Problems: The Philippine Bureau of Fisheries continues to be concerned over the depletion of the fisheries caused by the use of dynamite and poison to facilitate fishing operations in coastal waters. After at least two years of attempting to educate the fishermen to voluntarily desist, the Government issued an order imposing heavy penalties not only on the persons guilty of using illegal methods, but on merchants offering fish for sale which had been caught by illegal methods.

Miscellaneous Fishery Products: The quantity of shells, especially trocha, gathered in 1948 was greatly increased. There is no evidence of activity in regard to sponges, pearls, or other minor sea products.

NOTE: Values converted on the basis of one Philippine peso equals 50 cents U.S.

Ryukyu Islands

STATUS OF THE FISHERIES, 1949: Introduction: Indigenous food production, including fisheries products, supplies approximately 65-70 percent of the food requirements for a population which already totals over 900,000 persons, according to the 1949 Annual Report of Food and Agriculture Organization of the United Nations for Ryukyu Islands. It is anticipated that increased agricultural, fisheries and industrial activity will operate to achieve a further leveling of economy along stable lines in the Ryukyu Islands.

Emphasis during the year has been on the procurement of gear and fuel for the fishing fleet. Considerable progress has been made in this respect. Although the number of vessels made available to the fleet has increased, it is imperative to increase the number of vessels operating with Japanese-type engines. They have increased and it is intended that these will soon supplant the more expensive American engines now used.

During the fishing season, the supply of fish is equal to the demand. The next year should bring a realization of the hope of an export of marine products. Refrigeration is still a problem but there are indications that this will be forthcoming. A public market is nearing completion in Naha which should help in the distribution of the catch. The bonito stick industry is slowly being revived which will provide a source of protein during the off season. The industry shows promise of attaining its prewar level in fiscal year 1951.

Production: Most of the fishing fleet was destroyed during the war. It has been necessary to use reconditioned military craft for this purpose, and they have been very unsatisfactory. With a third more boats, the catch has been less than half of prewar production. There have been other factors, such as inadequate fuel and supplies, but the improper craft is the main cause. In the immediate future, Japanese-type fishing boats will be constructed. Fishing is the greatest natural resource of the Islands with an undetermined potential, limited so far only by a shortage of equipment and supplies. Long-line and drive-in fishing are the two methods most frequently used. When ice can be stored in the boats, deep sea fishing will be possible.

Distribution: Due to the fact that distribution facilities are inadequate it is the present policy to dispose of the fish as soon as they are landed. The fishermen only bring in the amount that the trade will bear; this condition results in a restricted production. In times of scarcity there is no reserve with which to supplement the diet. The price is uncontrolled but does not seem to be excessive. A system of reefers and cold storage plants is being set up which should change this situation, and the inland villages can be reached by trucks since the fish would remain frozen for several hours. The price would tend to stabilize since there would not be the haste to sell to prevent spoilage.

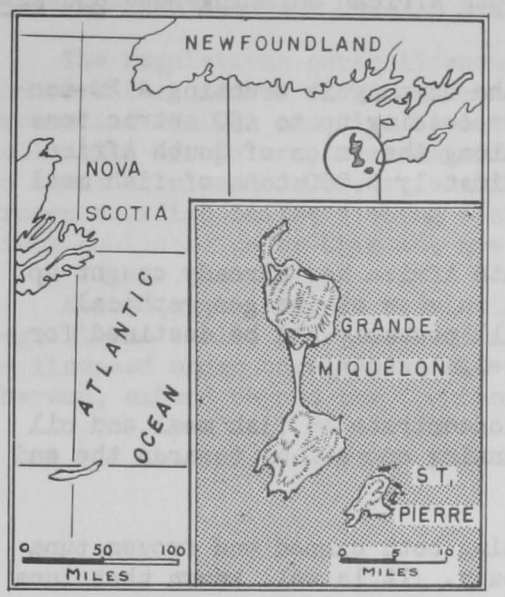
The Civil Governments (there are four separate ones in the Ryukyus) employ technologists who serve as inspectors for the fishing industry. Any violation of regulation is brought to the attention of the Central Fisheries Association and through that agency to the local organizations. Inspections include determination that fishing is being done in allocated waters, by licensed fishermen, and according to approved methods and conditions.

With increased production, there will be a greater quantity available to consumers. With refrigeration, the fish will be in better condition and, as the supply grows, more will be available for the inland population.

Fisheries Education and Research: The Fisheries Experimental and Research Station is still without a permanent building. The two boats (assigned to the Station) damaged during typhoon "Libby," are being repaired and should be in operation for the fishing season. The Station has been removed from the jurisdiction of Okinawa Civil Administration and is now directly responsible to the Military Government, and is to operate on a Ryukyu-wide basis. A carp raising station is planned for Kume Shima. A location for a permanent installation is being investigated.

Consumption: It is estimated that the per capita consumption of fresh fish in 1950-1951 will total 96 pounds.

St. Pierre—Miquelon (French Islands)



REVIEW OF THE FISHERIES: Introduction: Since the St. Pierre Bank has in the past two years generally offered better fishing than others west of the Grand Bank, the Island of St. Pierre is occasionally used by Halifax and Lunenburg trawlers as a haven, according to a September 26 report from the American Consulate General at Halifax. However, traffic of the Island's port is restricted to French trawlers and Lunenburg and Newfoundland schooners visiting the port to pick up supplementary supplies. In recent months, the island's ship-outfitting and provisioning trade (an important industry in the 1920's when 1,500 to 2,500 vessels cleared the port annually) has been drastically reduced by the last two season's disappointing yield to the trawler fleets. In addition, controls over dollar expenditures in Canada for foodstuffs and a great variety of other requirements do not facilitate the acquisition of provisions by French vessels except on a ration basis. Present modern French fishing vessels find it no longer necessary to stop at St. Pierre.

Fishing and Fish Processing Has Declined: Fish processing is also a declining industry. Present plants do not have an important production since they rely for supplies on a small number of local inshore fishermen whose catch is limited by modest equipment and by the trend of fish movements away from the Island's shore waters.

Fishing as an occupation does not appear to attract the interest of the young male population, and the number of boats engaged in regular operations is now probably not more than 25 percent of the peak in 1913 of 343 vessels.

Filleting Plant: Work on the proposed filleting and cold storage plant was at a full stop. Purchase of requisite machinery and equipment has been delayed by an exchange of currency problem, with the possibility that some change in the original concept has occurred. It is now contemplated that the bulk of production would go to the French West Indies rather than to France, if the plan ever materializes. No indication was given of when work on the plant would be resumed. The plan to operate a local fleet of trawlers and heavy inshore boats to furnish fish to the processing plants and the projected filleting plant has been tabled for the present. (See Commercial Fisheries Review, April 1948, page 28.)

Exports: The major item of export during 1948 was 1,000 metric tons of dried cod shipped to the French West Indies.

South-West Africa

PROPOSED TUNA FISHERY AND REDUCTION PLANT: A new tuna corporation recently formed in Africa is at present erecting a factory at Walvis Bay, South-West Africa, according to the September 1949 issue of The South African Shipping News and Fishing Industry Review.

Fish Meal and Oil Plant: To start with, the company is erecting a 20-ton-per-hour fish meal and oil factory capable of processing up to 450 metric tons of raw fish per day. Based on the experience along the Union of South Africa coast, production for this plant will be approximately 6,000 tons of fish meal and 2,000 tons of fish oil per year.

The fish meal industry in the Union of South Africa has already caught up with the internal demand for this commodity and in view of its geographical situation, production in the Walvis Bay area will probably all be destined for the export market, thereby earning valuable foreign exchange.

Tuna Canning: Although the company will concentrate on fish meal and oil operations at the start, it is also planning canning operations towards the end of 1950.

The possibilities of processing and exporting both canned and frozen tuna have received serious consideration by the company. It is well known that tuna are present in quantity in the warmer waters north of Walvis Bay and this is proved beyond any doubt by the tuna industry in Angola.

With the long-term development of tuna fishing in mind, the company has an arrangement with fishing interests in Angola whereby tuna is being canned under the company's trade mark and under the supervision of one of its own men who was sent to Angola specifically for this purpose. As the result of Union of South Africa import restrictions, the tuna pack is being exported to the United States. At the same time a great deal of information has been collected in connection with the habits of tuna and the processing procedure.

Union of South Africa

NEW FISHERY RESEARCH VESSEL: A large and up-to-date fishery survey vessel has been launched at Glasgow for the South African Government, according to the October 22 issue of the British periodical, The Fishing News.

The Africana II is 206 ft. long, 1,300 gross metric tons and has a speed of 13 knots.

Virtually a floating laboratory designed to undertake every aspect of deep-sea research work on the biological, chemical, and physical sides, the vessel is capable of doing 6,000 miles without refueling and is particularly suited to deep-sea work.

* * * * *

REGULATIONS GOVERNING THE SEA FISHERIES: The Union Government's Notice 2030 of the Department of Commerce and Industries, which appeared in the Government Gazette of September 23, 1949, establishes regulations in connection with

the "Sea Fisheries Act No. 10, 1940" (provides for the control of sea fisheries, for the better marketing of sea fish, and for other matters incidental thereto). The Governor-General has issued these regulations under the powers vested in him by Section 11 of this Act, according to an October 5 report from the American Embassy at Pretoria.

The regulations cover licenses for fishing boats and factories, and survey and certification of fishing boats as to seaworthiness; marking of fishing boats; protection of fish and size limits; return to the sea of crawfish or crawfish offal; collection of oysters, mussels and red bait; definitions and sizes of nets; netting to be used in various areas; whaling; control of fishing harbors; production of frozen crawfish tails; fishing statistics; and penalties. All previous regulations published under this Act are repealed and superseded by the new regulations.

According to the new regulations, "except as is specially provided, these regulations shall, in respect of any boat or any factory licensed or required to be licensed under the Act, and of any person or any fish, implement or other matter thereon, extend beyond the territorial waters of the Union."

Uruguay

DANISH FISHING OFF URUGUAY SUCCESSFUL: Danish fishermen who went to Uruguay to fish out of Montevideo some months ago have had an interesting experience, according to a Danish newspaper report in Fiskets Gang. The coast is alive with fish and the Danes have had excellent earnings. They have become friendly with the local population. Experts from both Brazil and Argentina also have come to study Danish fishing methods. There are possibilities of a Danish fishing colony in Uruguay as it is expected that additional Danish fishermen soon will be able to emigrate.

Uruguay purchased two large Esbjerg cutters and contracted with eight Danish fishermen to operate the craft with Uruguayan assistants. In addition, two trap or pound-net vessels of the Fredrikhavns type will be put into service.

"Covina" is the kind of fish most sought after. Fishing trips take two days or less although a longer trip to deeper water for hake gave results beyond expectations. Mackerel, mackerel sharks, and squid also are taken, and large beds of oysters have been found.

Venezuela

DEVELOPS FISHING INDUSTRY: Through the Ministry of Agriculture and the Venezuelan Development Corporation, the Venezuelan Government is taking definite steps to increase the production, distribution, and consumption of fishery products, according to several reports from the American Embassy at Caracas.

Four-Point Program for Increasing Production: A four-point program to benefit the Venezuelan fishery industry was announced as follows:

1. Supply outboard motors to those fishermen who still lack them and install refrigeration units on credit with easy payment terms. This is a continuation of current practice.

2. Construction of 30 larger vessels with diesel motors, of two types: one 34 feet, the other 26 feet. These will be constructed in the three national shipyards. The diesels will be purchased from local agents. These vessels will be sold to fishermen for 20 percent cash and the remainder payable in 20 quarterly payments (5 years).

3. The building of three national shipyards financed by the Corporation.

4. Construction of two modern fish ports: one at Cumana, the other at La Guaira.

Plan to Aid Fishermen of Margarita Island: In order to aid the independent local fishermen of Margarita Island, the new Corporation has instituted, in addition to supplying motors and refrigeration units for their boats, the following plan:

1. Supply of ice.
2. A sure market throughout the year at stable prices.
3. Cash immediately for their catch.
4. Repair service on their boats.
5. Help in getting gasoline and other supplies.

This plan, it is believed, will augment the $60 and $180 per month average earnings of the Island fishermen and captain owners, respectively.

This year the new Corporation has increased its production in this area to 40 metric tons monthly against an average of 16 tons during the first nine months of operation in April through December 1948.

New Warehouse and Refrigeration Plant: A new warehouse and refrigeration plant is planned soon at Puerto La Cruz. The plant has been constructed by one of the companies organized jointly by the Venezuelan Development Corporation and the Venezuelan Basic Economy Corporation. Reputedly equipped to freeze about 20 metric tons of fish daily and to store 400 tons, the plant will also produce 30 tons of ice daily for general use in the region.

Production: Fish production in Venezuela during the last decade has increased from 10,000 to 50,000 metric tons. The official policy of motorization of fish boats has contributed to the increase in production, which will be intensified with the introduction of new techniques, new facilities, and with the establishment of a system of distribution which will deliver the product to the consumer in perfect condition and at a reasonable price.

Modernization and Motorization of Fishing Industry: The Venezuelan Govern- is spending considerable sums of money to enlarge, modernize, and motorize the fishing industry. In 1947, as a first step in its motorization plans, it ordered from American manufacturers 400 inboard marine motors ranging from 16 to 42 hp., and 350 outboard motors of 9.8 hp., at a total cost, including estimated installation fees, of $62,340. Few fishermen are disposed to purchase engines through normal channels when such liberal terms are available from the Government. In October the corporation announced that it will purchase an additional 150 motors of 10 hp., 100 of

16 hp., and 100 of 22 hp. In May it was reported that 515 motors have already been distributed among 641 fishermen who requested them in the districts around the towns of Carupano, Cumana, Puerto La Cruz, La Guaira, Puerto Cabello, Las Piedras, and Maracaibo.

Table 1 - Venezuela's Imports of Marine Motors, Hardware and Small Craft from the United States, 1947 with Comparisons

	1947		1945		1941	
	No.	Value	No.	Value	No.	Value
Marine Motors	2,016	$1,309,117	201	$260,873	186	$ 80,386
" Hardware ..	-	46,775	-	42,302	-	12,920
Small Craft	58	386,383	34	270,450	8	51,670
Total Value	-	1,742,275	-	573,625	-	144,976

Marine engines and marine hardware are not manufactured in Venezuela and must be imported (Table 1). However, almost all of the boats used by the Venezuelan fishing industry, the largest user of small craft in Venezuela, are constructed locally of native woods, with the addition, in some cases, of imported pitch pine.

The Ministry of Agriculture estimates that there are in the neighborhood of 5,000 fishing craft of all types in Venezuela, a very small percentage of which are motorized. They are built by native craftsmen in small-industry, widely diversified areas. There are only two small shipyards of importance, one Government-owned, and one private. There are no special regulations covering the importation of marine motors, hardware, and small craft, except certain small duties.

PRODUCTION OF EDIBLE FISH IN THE RED SEA

The fish marketing system in Egypt is not well organized. There are only 3 fish merchants in Suez who buy on a comparatively large scale for distribution to retail markets. One of these owns a transport and sends a supply to Cairo daily. These shipments average 2 metric tons of fish per day, but amount to as much as 5 to 6 tons on days in which good catches are landed. Lack of refrigeration facilities and well organized distribution methods as well as irregular volume in catch cause considerable price fluctuation.

Processing fish at the Suez landing point is limited to tinning of sardines on a very small scale during the sardine season and to salting, particularly of mullet, at times when larger than usual volume is landed. An American canning expert, retained early in 1948 to advise the Egyptian Government concerning possibilities of expansion of Egypt's canning industry, is presently studying the practicability of utilizing Red Sea fish for a plant at Suez.

Fishery Leaflet 310