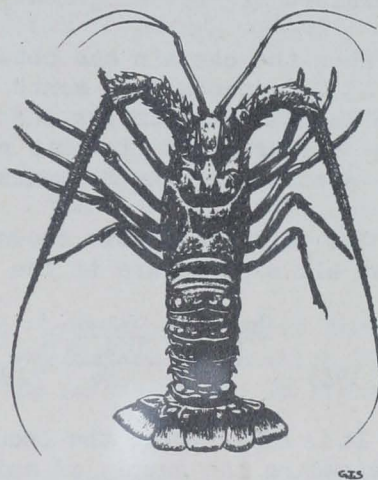




British Honduras

SPINY LOBSTER FISHING: The first attempt at exploitation of the British Honduras spiny lobster (rock lobster) on a commercial scale occurred in 1931 when a cannery was operated for a short period at Cay Caulker, according to the American Consulate at Belize, British Honduras. The experiment failed owing to the disinclination of the fishermen to catch the lobsters in sufficient quantities (4,000 pounds per day) to make operation of the cannery profitable.

In 1946, an American firm established a profitable spiny lobster business. A number of collection points were set up at various cays, chiefly Cay Caulker and Ambergris Cay. These are visited regularly by a fishing vessel equipped with refrigerating apparatus. The collection points are kept supplied by local fishermen who employ lobster pots and nets. The catch averages 5,000 pounds per week. Prevailing prices have been 6½ cents per pound for spiny lobsters. The spiny lobsters are then quick-frozen and subsequently flown to New Orleans, La. This business has been somewhat affected recently by the arrival of a group of American fliers operating out of Tampa, Fla.



SPINY LOBSTER (PANULIRUS ARGUS)

Another enterprise is that of a motor vessel of United States registry which operates out of Miami, Fla. This vessel, which has refrigeration equipment capable of keeping indefinitely a cargo of 55,000 pounds of spiny lobster tails, makes regular trips to British Honduras during the open season, which extends from October through March.

The vessel proceeds first to Point Placentia, Honduras, where it takes aboard, usually from 15 to 20 men with their dories for an extended period. The men get free food and cigarettes, good pay, and cash advances for their families. The vessel then makes a 2-week tour of the spiny lobster grounds off Glover's Reef and Cay Glory, moving each night to a new position.

Each morning, when the weather permits, the fishermen set out from the parent vessel, one man to each dory. Their fishing equipment consists of a glass-bottom box, which enables them to spot their prey in the shallow water around the reefs, and a pole equipped with a large hook from which the barb has been removed. The lobster is simply gaffed with the hook and hauled into the dory. In this manner, a good fisherman may obtain as many as 200 or 300 spiny lobsters in a day. He is paid 7 cents per lobster for the smaller ones taken at Cay Glory, and 9 cents

per lobster for the larger ones taken off Glover's Reef. (The lobsters migrate from north to south, facing into the current, which brings them their food. Consequently, those taken in the southern waters generally run larger.)

As each dory returns, the fisherman tosses his still live catch onto the deck of the larger vessel, where a member of the crew counts them and rejects any which do not meet the legal minimum size requirement of 4 inches from the base of the horns to the end of the jacket. Next, members of the crew, wearing canvas gloves to protect their hands from cuts and the resultant "lobster-poisoning," twist off the tails, which contain almost all the edible portion of the spiny lobster, and toss them into a basket, heaving the remainder of the lobster into the sea. After washing, the lobster tails are weighed into 5-pound lots (actually slightly over 5 pounds to allow for loss of weight by freezing) and placed in cardboard containers. The containers are then stacked in the refrigerated hold, where the temperature of -15° F. quickly freezes solid their highly perishable contents.

When the captain has obtained a sufficient trip (his maximum thus far has been 45,000 pounds in a month of fishing), he returns to Miami, where his frozen cargo is loaded on trucks and shipped to the mid-West. The average price paid to the fishermen is 11 cents per pound, spiny lobster tails ranging in weight from under $\frac{1}{2}$ pound to over 2 pounds.

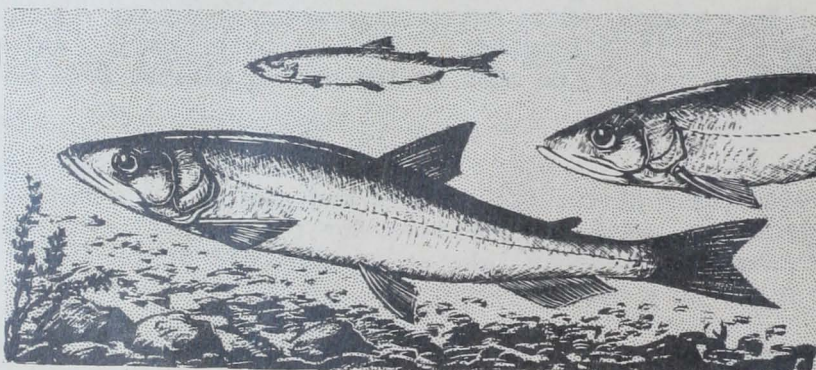
The following table shows exports of spiny lobsters for the years 1945-47. Almost all exports are to the United States.

	<u>Quantity</u>	<u>Value</u>		<u>Quantity</u>	<u>Value</u>		<u>Quantity</u>	<u>Value</u>
	<u>Lbs.</u>	<u>U.S. \$</u>		<u>Lbs.</u>	<u>U.S. \$</u>		<u>Lbs.</u>	<u>U.S. \$</u>
1945 -	1,536	86	1946 -	92,390	6,742	1947 -	185,317	19,070

It is likely that the industry will continue to expand, as no decline has been perceived in the supply of spiny lobsters.



Canada



SMELT

ATLANTIC FISHERIES: In the Atlantic fisheries, an increase in the production of smoked cod fillets is noticeable, but it is too early to conclude that this is a significant development. In the winter smelt fishery, a larger proportion of the catch has been frozen; 85 percent as compared with 60 percent in 1947.

PACIFIC WINTER HERRING: The British Columbia herring season closed during the last week in February. A total of 171,434 tons were landed. Somewhat less than 30 percent of this was utilized for canning, resulting in a pack of 1,255,562

cases, less than 80 percent of the 1947 pack, according to the Dominion Bureau of Statistics. The bulk of this year's pack was purchased by the Government for European relief. About 60 percent of the catch was utilized for reduction, producing 21,170 tons of meal and 1,889,943 gallons of oil. In addition, 1,428 tons of cured (dry-salted) herring was produced.

EMBARGO ON EXPORTS OF RAW SALMON: The Canadian Minister of Fisheries announced in Parliament, on April 9, 1948, the re-imposition of the embargo on exports of raw sockeye, pink, and chum salmon, according to the American Consulate General at Vancouver. Raw coho salmon may be exported until September 1, 1948, when the embargo on this species will become effective. The move is intended to "provide equitable safeguard for management in maintaining its canning industry and for fishermen by leaving the way open for them to take advantage of the higher prices paid on the United States' market ..."

There are no restrictions on exports of any species of canned, salted, smoked, cured, or frozen salmon, and on raw spring salmon.

MARKETING OF CANADIAN FISH: Efforts are being made to stimulate the sale abroad of Canadian fish through the establishment of the Inter-departmental Fisheries Export Marketing Committee, which will comprise members of the Department of Fisheries and the Department of Trade and Commerce. The Committee will consult with industry concerning special marketing problems as they arise. It was officially launched on April 12.

It is appreciated that the market for fish and fishery products is becoming more competitive, and that this situation requires special consideration by officials in Canada, operating in conjunction with trade commissioners in countries that might secure supplies from this Dominion.

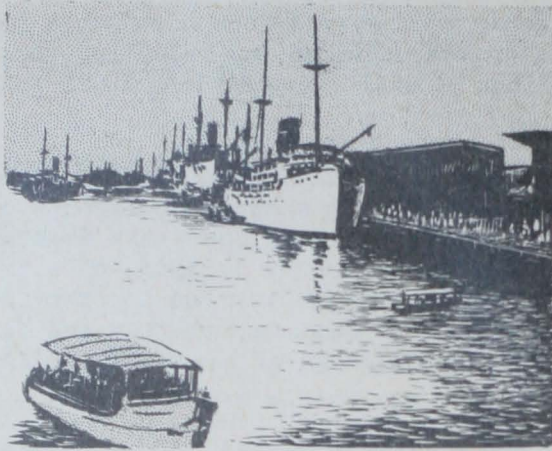
Canadian exports of fish and fishery products in 1947 were valued at \$82,359,000, compared with \$86,486,000 in 1946, and with \$26,530,000 in the corresponding period of 1938. The value of Canada's exports for the first three months of 1948 is \$23,792,000, compared with \$20,400,000 in the corresponding period last year.



Indonesia

TUNA INDUSTRY: The Department of Economic Affairs of the interim Government of Indonesia intends to launch an expedition to investigate the possibilities of establishing a tuna canning industry in East Indonesia where a certain local variety called the "tjakalang" is said to abound in extremely large quantities in the waters between New Guinea and the Straits of Macassar, according to the American Consulate General at Batavia, Java.

An official of the Department's Industrial Section has been assigned to organize the expedition. A vessel has been especially equipped by the Sea Fishery office to ply East Indonesian waters on a 6-months' cruise to gather fish and study various methods of preservation (drying, salting, and canning). Due to lack of sufficient fish in the Javanese diet, protein deficiencies have been noticed which could be greatly relieved if the "tjakalang" were to be exported to Java. The expedition will also undertake to analyze the peculiar formation of poisonous



substances encountered in the salting of the "tjakalang" which has prevented its wider use throughout the archipelago. Furthermore, an initial experimental preserving station will be set up at Aertenbaga, an important East Indonesian fishery center to be followed by a second at Amboina. An attempt will also be made to prepare a fish meal rich in vitamins A and D from fish offal. In addition, biological phenomena will be analyzed during the expedition by the chief of the Marine Research Laboratory.

If these experiments succeed, it is hoped that a new industry may be established in East Indonesia which may prove a material factor in the economy of the new State.



Japan

AGAR-AGAR: During the 1947-48 agar-agar processing season, which ended recently, 1,330,333 pounds of agar-agar were produced in Japan, according to the Natural Resources Section of the Allied Powers in Japan. About 1,000,000 pounds, valued at \$1,250,000, will be offered for export. During the 1946-47 season, 1,000,000 pounds of agar-agar were produced and 750,000 pounds contracted for export.

AQUATIC RESEARCH REFORM COMMITTEE: On March 30, 1948, a representative of Natural Resources Section, addressed the first meeting of the Aquatic Research Reform Committee, recently established by the Ministry of Agriculture and Forestry to study Japanese research institutions and make recommendations for the reorganization of Japanese aquatic research.

GLASS FLOATS: The Japanese fishing industry uses glass balls as floats principally for deep-water dip nets, drag nets, set nets, and tuna long lines. The balls are usually from 6 to 45 centimeters (2.4 to 17.7 inches) in diameter and weigh from 25 to 2,800 grams (0.9 to 98.7 ounces).

Glass floats were first used in Japan in 1910, but the practice was not general until about 1926 when the fishermen in northern areas of Japan adopted them. Shortly thereafter, all Japanese fishermen used them.

All glass floats used in Japan have been manufactured domestically. Before World War II, approximately 10 factories specialized in the manufacture of glass balls, but now only four principal manufacturers operate in northeastern Japan. Although monthly production capacity of these factories is about 330,000 glass balls, actual production is less than 50 percent of capacity because of coal shortages. Japanese glass floats are still hand blown because of the difficulty of maintaining a uniform thickness of glass by machine blowing.

WHALING SEASON CLOSES: The 1947-48 Japanese Antarctic whaling operation ceased March 10, 1948. As a result of increased efficiency in production, actual

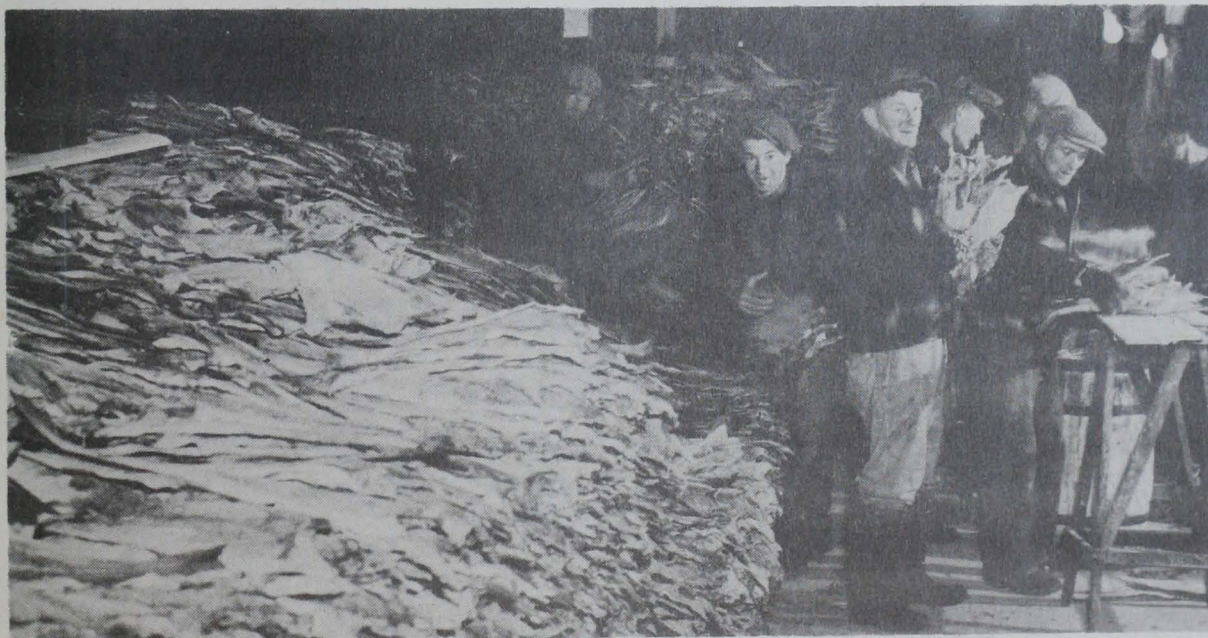
yield of meat, oil, and blubber per blue whale unit exceeded anticipated production, although the number of whales caught this season fell short of the goal. The total catch for the season beginning December 8, 1947, was 1,321 whales (1,017 blue whale units) against a goal of 1,700 whales (1,300 blue whale units).



Newfoundland

SALTED COD EXPORTS, 1947: In 1947, exports of salted cod amounted to only 95,828,544 pounds, compared with 124,887,392 pounds in 1946. Exports fell off largely because of foreign exchange restrictions, and relatively large stocks were carried over for marketing in 1948. In the fall of 1947, the situation with respect to the export of salt cod became highly uncertain because of sterling restrictions imposed by the United Kingdom. The Newfoundland Government eventually intervened, however, making a portion of its dollar surplus available to exporters. This enabled exporters to resume sales to the sterling areas in late 1947 and early 1948. Exports of 1947 stocks during the early months of 1948 proceeded satisfactorily, according to the Consulate General at St. John's, Newfoundland.

A comparison of figures showing exports of salted cod by countries in 1946 and 1947 reflects the foreign exchange difficulties encountered in 1947. Exports fell off to most countries in the sterling area, but generally increased to markets in the Western Hemisphere. While no comparative figures are available for the calendar year 1946, official figures disclose that Newfoundland's exports of salted cod in the fiscal year April 1, 1946, to March 31, 1947, were valued at \$15,287,000--\$1,500,000 more than in the calendar year 1947.



DRIED COD FISH BEING CULLED AND PREPARED FOR MARKET AT CARBONIAN, NEWFOUNDLAND^{1/}

^{1/}Courtesy of Daily News, St. John's, Newfoundland.

Table 1 - Exports of Salted Cod from Newfoundland

Exported To	1 9 4 7		1 9 4 6	
	S A L		T E D	
	Dried Lbs.	Wet ^{1/} Lbs.	Dried Lbs.	Wet ^{1/} Lbs.
<u>North America</u>				
United States	147,728	3,009,216	940,464	4,406,080
Canada	458,640	3,756,704	310,800	3,784,816
<u>South America</u>				
Brazil	7,326,704	-	4,845,792	-
<u>West Indies</u>				
Jamaica	12,328,064	-	10,595,200	-
Puerto Rico	17,481,632	-	16,306,080	-
Other	11,317,824	448	11,011,952	-
<u>Europe</u>				
Italy	8,009,008	4,480,000	24,222,800	-
Portugal	15,812,496	-	18,074,448	-
Spain	7,688,800	-	18,577,888	-
Greece	672,000	-	8,388,352	-
Other	3,258,640	80,640	1,068,816	2,353,904
Total	84,501,536	11,327,008	114,342,592	10,544,800

^{1/}Salt bulk

EXPORTS OF OTHER FISHERY PRODUCTS, 1947: In 1947, Newfoundland's exports of fish and fishery products other than salted cod approximated \$12,500,000, compared with \$16,000,000 in 1946. This drop of more than \$3,500,000 may be accounted for by an approximately \$3,500,000 drop in the value of cod fillet exports (from about \$5,000,000 to about \$1,500,000).

FISH FILLETING AT ST. JOHN'S, NEWFOUNDLAND, 1948^{1/}^{1/}Courtesy of Daily News, St. John's, Newfoundland.

The frozen fillet industry, after mushrooming during the war from an export figure of 6,500,000 pounds to over 30,000,000 pounds in 1945 and 1946, fell off

Table 2 - Exports of Certain Fishery Products from Newfoundland - 1947

Exported to	Fillets (chilled and frozen)			Herring, pickled	Lobsters, Live
	Bream	Cod	Haddock		
	Lbs.	Lbs.	Lbs.		
United States	993,850	7,896,383	2,977,340	15,048,660	1,980,371
Canada	43,439	1,866,932	69,508	1,195,775	1,264,783
UNRRA	-	-	-	15,648,425	-
Other	-	40,680	2,340	464,875	700
Total	1,037,289	9,803,995	3,049,188	32,357,735	3,245,854

sharply in 1947, exports amounting to about 12,500,000 pounds. Loss of the United Kingdom market and inability to exploit the United States market on a larger scale were the principal reasons for this steep decline.



Norway

FISHERIES REVIEW, 1947: Preliminary estimates indicate that the total catch of the Norwegian fisheries in 1947 was approximately 1,058,700 metric tons with a value of \$59,600,000, according to the annual economic review submitted by the American Embassy at Oslo.^{1/}

The catch was as great as in any of the best years prior to the war and was 233,800 metric tons larger than in 1946. The money value of the catch was the highest ever recorded; \$19,300,000 above the previous record value of the 1946 catch. The record 1947 catch was brought about mainly by the large yield of the winter herring and cod fisheries.

On the whole, Norwegian fishermen enjoyed good economic returns, but normal conditions in the industry have not yet been restored. There is still a large unsatisfied demand for fishing gear, although the supply situation in this regard has improved since 1946.

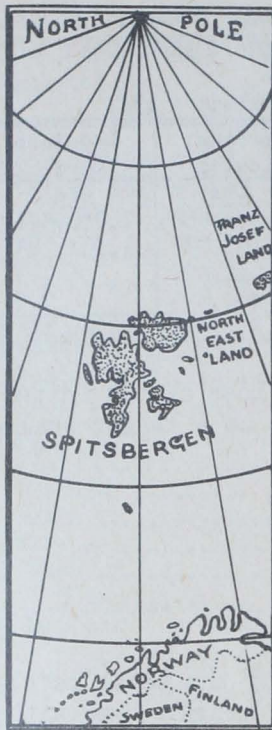


LOFOTEN ISLES

Cod Fisheries: The yield of the cod fisheries in 1947 was unusually large. Total production of cod in 1947 amounted to 229,002 metric tons (dressed weight) compared with 182,070 metric tons in 1946.

The total value of the cod catch is estimated at \$10,800,000. The parts of the catch processed by various methods were as follows, in metric tons: dried, 44,637; salted, 86,314; marketed fresh, 14,880, of which quantity 2,414 tons were used for fillets. In addition, there were produced 7,920 tons of cod liver oil; 1,511 tons of salted cod roe; 1,266 tons of sugar-salted cod roe; 1,543 tons of cod roe for canning; and 63 tons of roe for fish meal.

^{1/}Where available, 10-month figures in the review, particularly for exports, have been revised and now cover the whole of 1947.



Cod fishing on distant fishing grounds in 1947 was considerably more active than the year before. In the line fishing at Bear Island (Bjørnøya) and Spitsbergen (Svalbard) there was considerable participation by Norwegian vessels. Only one Norwegian vessel participated in line fishing in Iceland and only four vessels off western Greenland.

Both line fishing and trawl fishing in the waters around Bjørnøya and Svalbard were rather unsuccessful. It appeared that the cod in 1947, in contrast to earlier years, did not go to these areas, but instead spread out on the banks of the Barent Sea.

From time to time during the year, the marketing facilities for cod were overtaxed on account of the large number of vessels engaged and the great catches landed in certain areas, but on the whole, the marketing machinery was able to take care of the fish brought in. On account of abnormal conditions in the export trade, there was less demand for roe for salting purposes and much roe had to be dumped into the ocean.

It is estimated that economic returns were such that the average weekly share of crew members in vessels using nets was about \$54; fishermen engaged in line fishing netted \$32; and men hand-lining from small boats obtained about \$27.

Herring Fisheries: In 1947, as in 1946, the winter herring season started late. It was a successful "large herring" season. The total catch was 320,000 metric tons. The so-called "spring herring" season was not so successful. As is usually the case in winters of severe cold weather, the herring did not go onto the banks and stay there. The yield of the spring herring fisheries is estimated at 210,000 metric tons. In 1946, the total herring catch was 382,200 metric tons.

Of the total 1947 herring catch, 46.8 percent was taken by means of purse seine; 52 percent was taken with nets.

According to estimates made by the Norwegian Herring Marketing Cooperative, the average prices for herring caught by means of purse seine during the "large herring" period was \$1.44 cwt. and in the "spring herring" period it was \$1.17 cwt. Prices for herring caught in nets were practically the same.

The total market value of the winter herring fisheries amounted to \$13,073,984. In addition, \$3,087,043 was paid by the Norwegian State as a subsidy to cover the guaranteed average sale prices of \$1.55 and \$1.26 cwt. for the two periods of the herring fisheries. Thus, the fishermen altogether received \$16,155,005, or \$6,519,115 more than the corresponding value in 1946, and \$3,782,696 more than the value for 1945. Money receipts were the highest Norwegian herring fishermen have ever received for one season.

The export of herring packed in ice and frozen herring increased considerably as compared with previous years. Exports of salted herring were 30,000 metric tons above the previous year. Plants producing herring oil received a larger percentage of the catch than was common during the war years and the first postwar seasons. A larger proportion of the herring catch was needed to meet the increased demand in Western Europe for food fish.

The catch of so-called "fat herring" and "small herring" in 1947 was poor. Some of the herring tabulated as "fat herring" in reality were simply herring which were caught along the west coast during the period April-June. The real "fat herring" fishing during the summer and fall months was a total failure. The "small herring" fishing also was poor. Very small catches were obtained in northern Norway and investigations made on the fishing banks by means of radio sounding apparatus seemed to indicate a small supply of fish. As of November 29, 1947, the catch of "fat herring" was 21,750 metric tons as against 30,400 metric tons the previous year. The catch of "small herring" during the same period was 42,900 metric tons as against 69,500 metric tons in 1946.

Herring Fisheries in Iceland: During the herring fishing season in Iceland, 201 Norwegian vessels were engaged. Of these, 47 were equipped with purse seines, 151 with nets. Two were freight boats for the transport of salted herring and one vessel was used for the transport of fresh herring.

The value of the 1947 Norwegian catch of herring from the Iceland fishing grounds was estimated at \$4,300,000.

Brisling: Neither on the west coast nor in eastern Norway was brisling fishing very successful. The total catch was only 9,500 metric tons as compared with 13,860 tons in 1946.

Trawl Fisheries: In the North Sea, Norwegian trawling increased from 7 trawlers in 1946 to 70 small vessels in 1947. On the whole, the fishing was successful; the total catch was about 4,000 tons.

Other Fisheries: In 1947, there was fairly active participation in the mackerel fisheries. Good catches were obtained during May and June by drifters and purse seiners. Considerable quantities of "Pir" (small mackerel) were used for canning. The total mackerel catch was estimated at 14,000 metric tons, almost twice as much as 1946.

Coal Fish (Sei) Fisheries: Unfavorable weather handicapped the catch of sei. The total catch at the end of November was estimated at approximately 35,000 metric tons.

Exports: Total exports of fish and fish products during the first 10 months of 1947 reached a value of \$73,800,000 compared with \$55,500,000 in 1946. (These figures include canned fish, but do not include exports of herring meal and fish meal, cod liver oil, and salted cod roe which appear under other classifications in the export statistics.) The 1947 value of such exports reached an all-time high; during the years previous to the war, annual export values fluctuated around \$23,100,000 to \$28,100,000.

Exports of fresh fish during 1947 were 50,612 metric tons as against 24,758 metric tons in 1946. More than half of the exports of fresh fish consisted of cod and fillets of cod.

Exports of salted fish decreased greatly, from 35,095 tons in 1946 to 10,011 tons in 1947.

Exports of dried fish and "klipp-fisk," which during the war years dwindled to practically nothing, were resumed in substantial quantities in 1946. Dried fish exports increased only from 12,393 tons in 1946 to 13,503 tons in 1947, while "klipp-fisk" increased from 27,270 tons to 45,335 tons.

In 1947, there was exported 85,389 metric tons of fresh herring as compared with 55,828 metric tons during 1946. On the other hand, there was a decrease in exports of salt herring, from 101,387 tons in 1946 to 92,873 in 1947. Exports of herring meal and fish meal were reduced from 9,473 tons in 1946 to 7,145 tons in 1947.

Canned Fish: During 1947, 33,809 metric tons of canned fish were exported as compared with 26,022 metric tons in 1946 and 36,111 metric tons in 1939. The canned fish exports in 1947 were comprised chiefly of:

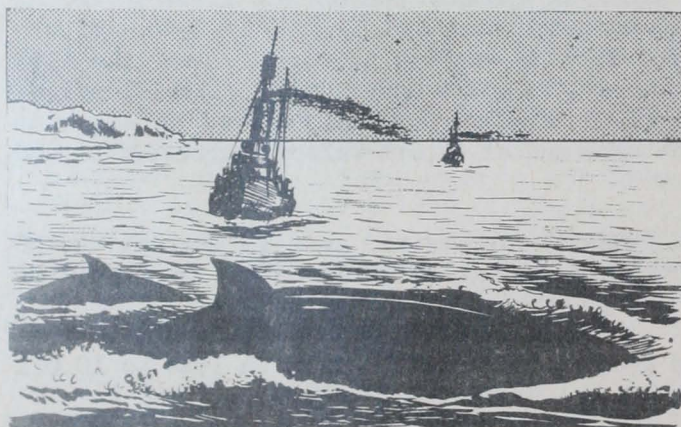
	Metric tons	Value (\$)
Smoked brisling sardines in oil	12,701	8,900,000
Kippered herring other than in oil or tomato sauce.	7,985	3,500,000
Smoked small herring in oil	5,546	3,700,000
Crayfish and shell fish	2,418	3,000,000
Other	5,159	3,600,000
Total	33,809	22,700,000

Exports during 1947 went primarily to the following countries:

	Metric tons	Value (\$)
United States	7,910	5,000,000
United Kingdom	11,184	8,800,000
Australia	3,517	2,000,000
Union of South Africa	2,242	1,500,000
Belgium	1,558	1,000,000
Other	7,398	4,400,000
Total	33,809	22,700,000

Exports of cod liver oil, which had increased considerably in 1946, continued to rise in 1947, but less steamed medicinal oil was exported than in 1946--2,713,000 gallons as compared with 2,796,000 gallons.

Frozen Fish: In October 1946, the company "Norsk Frossenfisk" was formed to encourage production and export of frozen fish, and now includes all Norwegian fish freezing plants. During 1947, exports of frozen fish, chiefly fillets, were valued at \$7,243,461 and efforts are being made to increase production and export. There was a large increase in exports of frozen halibut, from 813 tons in 1946 to 2,655 tons in 1947.



Whaling: During the season 1946-47, Norway had 7 floating factories on the whaling grounds in the Antarctic. With the floating factories were a total of 57 killer boats. In addition, operations were conducted from the land station in Husvik Harbor on South Georgia from which 6 whaling boats operated. Whaling conditions were unusually favorable.

The Norwegian production of whale oil for the season 1946-47 was 980,000 barrels of oil and the total value amounted to \$66,800,805, the largest return ever obtained from a season's whaling in the Antarctic. The value of the production of the preceding season, 1945-46, was approximately \$24,144,869.

The whaling companies, however, did not receive the full value for the total catch in 1946-47. From the total amount, a price equalization fee to the Norwegian State must be deducted.

The following table shows a comparison of the Antarctic whaling operations, by Norway and other countries, for the season 1946-47.

Country	Whales Caught	Oil Produced Bbls.	Land Stations	Floating Factories	Killer Boats
Norway	12,530	979,913	1	7	63
England	9,878	728,752	1	4	50
Holland	770	77,310	-	1	8
Argentina	857	47,830	1	-	6
USSR	386	35,000 ^{1/}	-	1	8
Japan	1,175	73,295	-	2	12
Total ...	25,596	1,942,100	3	15	147

^{1/}Approximate figure.



Portugal

DEPARTURE OF COD FISHING FLEET: The Portuguese cod fishing fleet assembled at Lisbon in April for impressive and picturesque ceremonies prior to its departure for the Newfoundland Banks. According to local press accounts, some 59 vessels, mostly three-masted schooners with auxiliary motors, were to leave Lisbon for the Great Banks. This is the largest number of fishing vessels ever sent out of the Tagus to the Banks. Most of the units are of modern construction as a result of the considerable effort made by the Portuguese in recent years to develop the cod fishing fleet. A decade ago, the annual catch made by Portuguese cod fishing vessels supplied about 20 percent of the domestic consumption; this year, it is predicted that of the current domestic consumption of approximately 60,000 tons annually, the domestic fisheries will furnish about 50 percent with the remainder being imported from Norway and Newfoundland.



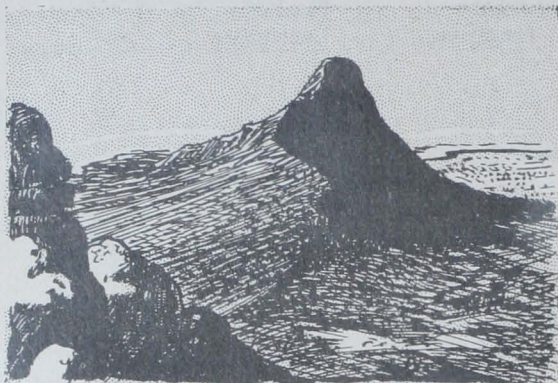
Union of South Africa

NEW CANNING AND FISH MEAL PLANT: A new factory of one of the associated companies of the Fisheries Development Corporation of South Africa has been completed and put into operation. The plant can treat 10 tons of raw fish per hour, producing a high-grade fish meal and fish oil, according to a report by the American Consulate General at Cape Town, South Africa. On completion, the company's plant will have a capacity in excess of 300 short tons of pilchards a day for canning and for the manufacture of oil and meal. When working at full capacity, at the height of the pilchard season, the oil and meal plant has a potential output of 40 short tons of meal and 6,000 gallons of oil a day. During 1947, the company has produced approximately 2,750,000 pounds of canned fish, mostly pilchards and mackerel.

OYSTER CULTURE: The Fisheries Development Corporation of South Africa, Ltd., have continued investigations into the possibility of oyster culture at Knysna. Some 50,000 oysters were put down and those that have survived the removal and the

attacks of enemies such as "mussel-crackers" and whelks, have shown very good growth. The indications are that oysters can be grown successfully in the lagoon. The site in the Keurbooms Lagoon was abandoned as unsuitable.

FROZEN CRAWFISH: An agreement has been concluded among local exporters of crawfish (spiny lobster) tails whereby this commodity will be sold through one channel, the South African Frozen Rock Lobster Packers' Association, and exports to the United States will be handled by that Association through its American representative. The gross return from markets abroad will be pooled and averaged among exporters, thus avoiding an excess of selling pressure on any one market. Further, by placing distribution in the hands of a single organization in America it will, it is felt, be possible to obviate the position whereby the New York market was glutted while the requirements of the Middle West were left unsatisfied.



LIONS HEAD, CAPETOWN, SOUTH AFRICA

The attempt to rear crawfish at Hout Bay has been abandoned as the method found successful for rearing lobsters in America proved quite unsuitable here.

The 1947 figure for sales of frozen crawfish tails in the United States has been given as \$1,700,000. The freight rate to the United States for frozen crawfish tails is \$50 per ton or per 40 cubic feet.

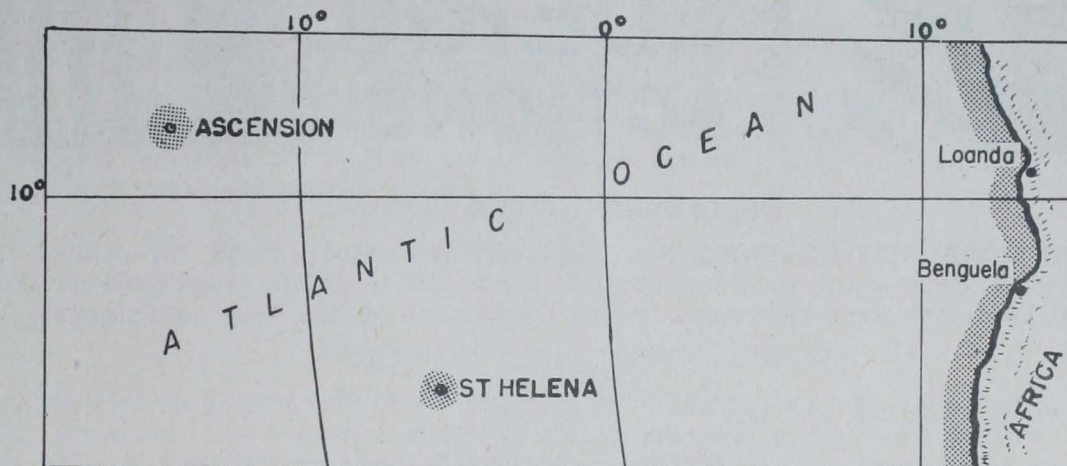
FISHERY BYPRODUCTS: Scientific research has enabled South African manufacturers to make good progress in the production of fish oil of high vitamin content, hake liver oil in malt, fish meal, fertilizers, cattle feed, and poultry oil. The value of the output of the Union's fish factories is stated to exceed \$4,000,000 a year. Fish meal and fish body oils are not exported.

PRESENT CONDITIONS: The fishing and fish canning industries are developing rapidly and they have recovered the ground lost during the war years. South African fisheries are given every encouragement by the Union Government and their export trade may be expected to expand as new plants are brought into operation and new and existing harbors are developed. No canned fish are exported to the United States since it is believed that competition from California would be too strong. South African canned pilchards are, however, said to compare favorably with American brands of that product. Exports of frozen crawfish tails to the United States are now organized on a basis which should ensure wide distribution and a steady market.

ST. HELENA AND ASCENSION FISHERIES: It is understood that a Cape Town firm has obtained from the British Colonial Office concessions of fishing rights off the islands of St. Helena (between 10° and 20° South Latitude, between 0° and 10° West Longitude) and Ascension (7.53° South Latitude, 14.18° West Longitude).

The concessions cover a period of years and it is intended to erect factories on St. Helena and Ascension. Cold storage plants are believed to be already provided.

It is expected that large quantities of fish will be available, notably crawfish and tunny for canning and sharks for vitamin oils, and also heavy-weight turtles and a considerable amount of guano phosphates.



A possible source of revenue is what is known as the "black fish." Its weight does not exceed one pound but it is found in prodigious quantities and is said to be of value in the manufacture of fish meal.



CANNED FISHERY PRODUCTS AS FOOD

If full use is to be made of the nutritional value of fishery products, they must also be made appetizing. Other things being equal, the consumer may be educated to use products with the superior nutritive value, but if canned fishery products are not prepared so that the maximum of favorable appearance and flavor are retained, some more attractively prepared article of lower food value will be substituted. Canned fishery products are very appetizing if the proper attention is paid to quality and if they are attractively served. Every care should be taken to produce high quality packs and advertising programs should be directed to helping homemakers and other cooks prepare attractive and appetizing dishes.



--Fishery Leaflet 90