



Africa

GOLD COAST FISHERY RESEARCH PROGRAM: The West Africa Fishery Research Institute, established to carry out basic and exploratory research on behalf of the four British West African Colonies of Nigeria, Gold Coast, Sierra Leone, and Gambia, expects to have a staff of three or four scientific officers; and a trawler type research vessel with two purse boats to operate between the Gambia River and the Cameroons. Sierra Leone has been chosen as headquarters.

Each of the four Colonies, however, already has an embryo Fishery Department to undertake administrative and ad hoc problems, pilot scale investigations, and getting new techniques across to the Africans after completion of the exploratory work. Nigeria has two Fishery Officers under the Department of Commerce and Industries with a supporting staff, and is giving special attention to estuarine and lagoon fisheries. In the Gold Coast, there are also two Fishery Officers under the Department of Commerce and Industries. The emphasis of present investigations is technological--a small pilot cannery for sardines (Sardinella spp.) is being operated. In Sierra Leone, a small 63-foot dragger is being operated successfully under the Department of Supplies by an experienced master fisherman, and is landing weakfish, croakers, threadfin, tongue soles, and catfish. For Gambia, a Fishery Officer is being trained in the United Kingdom, and will take up duties early in 1948.

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SOUTH AFRICAN CRAYFISH INDUSTRY: Introduction: A report has been made by the American Consulate General, Cape Town, South Africa, on the catching and processing of the "Cape rock lobster," or crayfish (Palinurus lalandii) which has expanded in the past few years, and for which an American market for frozen crayfish tails has been developed.

Organization of Industry: the largest factory for the canning and exporting of frozen crayfish caught in the waters around the west coast of South Africa is situated at Hout Bay, about 7 miles south of Cape Town. This factory is controlled by South African Sea Products, Hout Bay, which is an amalgamation of four companies formerly operating in and around Cape Town. The combine is backed by and affiliated with the Fisheries Development Corporation, which holds one-third of the shares in the new unified enterprise. Independent canneries are situated at Saldanha Bay, Paternoster, Stompnose Bay, Velddrift, Lamberts Bay, Thorn Bay, Hondeklip Bay, and Port Nolloth.



TABLE MOUNTAIN IN SOUTH AFRICA

South African Sea Products has just built two new factories, the first near the Hout Bay harbor at a cost of \$60,000 for the extraction of shark liver oil, and the second one nearby at a cost of about \$240,000. The latter factory is claimed to be the most modern of its kind in the world and has a refrigeration plant with large cold storage rooms and a second plant capable of making 3 tons of ice daily. It is planned that this factory will handle up to 2,000,000 crayfish per annum direct from the fishing boats. The two factories employ, at present, some 500 people, and a new Hout Bay housing project costing \$600,000 is expected to be completed in about 6 months.

It is reported that South African Sea Products plan the further erection of a fish meal factory as a result of Governmental requirements that crayfish tails may not be exported unless the exporter converts the offal into fish meal.

Production: The crayfishing season runs from about 6 to 8 months of the year. There has been a steady increase in the activity of the local fishing industry during recent years, as indicated below.

	Average prewar	Estimated 1947
	Annual Production	Production
	Pounds	Pounds
Annual Fish Catch (All kinds)	90,000,000	100,000,000
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Production of Fish Canneries:		
Crayfish	500,000	7,000,000
Other fish	420,000	10,000,000
Fish meal	3,000,000	4,000,000
Oils:		
Fish oil	0	250,000
Vitamin oil	0	160,000
Seal oil	0	35,000

Export: As might be expected, the export of crayfish has increased proportionately to the expansion of the local fishing industry, although by Government regulation export licenses are issued only up to a maximum of 6,000,000 pounds of crayfish products. The following table shows the recent increase in crayfish exports (in pounds):

	1945	1946	1947(Estimated)
Crayfish:			
Canned	1,362,914	2,125,000	4,000,000
Tails (fresh or frozen)	377,390	2,366,166	2,000,000

While recent figures of the proportion of frozen crayfish tails exported to the United States are not available from South African Government statistics, analysis of United States Department of Commerce import statistics in conjunction with invoices certified by this office indicates these exports form a substantial proportion of the total South African production.

The American export market, although as yet still undeveloped, is highly valued by the industry and in order to insure that the production meets with no rejection by the American health authorities, efforts are made to have all shipments carefully examined before permits are granted. The Government has regulations in force governing freezing temperatures and hygienic methods of treatment and packing to be observed.

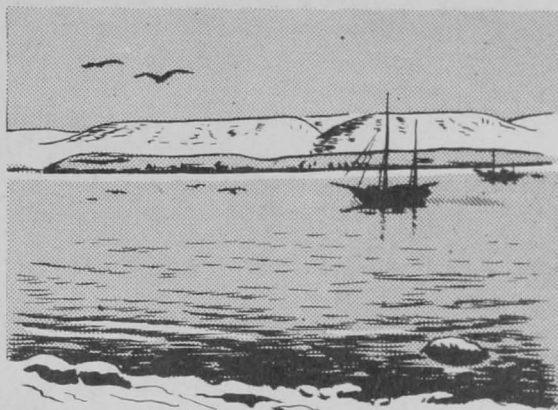
Conclusion: The South African crayfish industries, together with the local fishing industry as a whole, has considerably expanded in recent years. The fish-

ing industry is highly optimistic regarding its future and is not discouraged by the restrictions on the quantity of crayfish allowed to be exported annually. In particular, great value is placed on the American market for crayfish tails and further efforts towards its expansion are to be expected.



Iceland

ONE OF COUNTRIES PARTICIPATING IN EUROPEAN RECOVERY PROGRAM: A summary of the economic studies on the 16 countries which participated in the Committee of European Economic Cooperation and western Germany has been released by the Senate Committee of Foreign Relations, under the title Countries Participating in the European Recovery Program. Iceland is one of the 16 countries. The study on Iceland--which is excerpted below--was made while determining the role in European recovery of countries participating in the ERP and their need for United States assistance.



I. Effects of War on Iceland Economy: The fish industry is Iceland's chief economic activity and principal source of exports. Before the war, Iceland's fish exports went chiefly to England and other European markets, which in turn supplied the great bulk of imports. Trade with the United States was favorable to Iceland but relatively insignificant. During the war, Iceland's trade was confined almost exclusively to Great Britain and the United States, and, by the end of the war, fish and fish products constituted more than 90 percent of the Island's exports.

The foreign exchange received from fish sales during the war and the garrison expenditures of American and British troops in Iceland improved the standard of living and encouraged inflationary pressures that raised the cost of living index to 325 by October 1947 (January-March 1939 equals 100).

Since the end of hostilities and the reappearance of certain former occupied countries as fish exporters, Iceland has found difficulty in disposing of its fish in the face of prevailing world prices, which in several instances, are below Iceland's inflated production costs. The depressed state of Germany and of southern European countries deprives Iceland of important traditional markets. To meet import requirements and to proceed with its capital equipment program (principally for the fishing industry), Iceland drew heavily upon its foreign exchange reserves, with the result that they fell from a high of \$89,000,000 in 1944 to a low of less than \$1,000,000 by October 1947.

II. Postwar Recovery: Although Icelandic fish production capacity has been expanded, increased production is not a complete answer to Iceland's problem of postwar readjustment. Its markets continue to lie chiefly in Europe, and until Europe can supply the products needed, Iceland will continue dependent on the Western Hemisphere for essential food and other imports and thus will have a trade deficit with this area in the years immediately ahead. The Icelandic Government has taken steps to halt inflation and reduce production costs in an effort to keep fish exports at competitive price levels. A further drastic reduction in the

standard of living might bring about a temporary trade balance but would probably be followed by serious economic and political consequences.

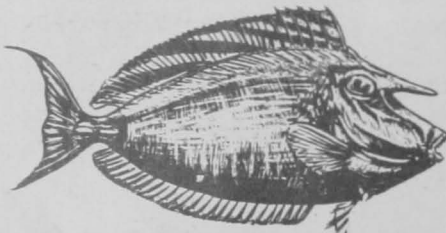
III. Iceland's Role in European Recovery and United States Assistance: Iceland's fish products were a significant factor in Europe's prewar supply of food, particularly in Germany and the Mediterranean countries. Iceland has the equipment and manpower necessary to make an increased contribution if Western Europe itself recovers and again becomes a profitable market for Icelandic fish and edible oils.

Until this is accomplished, Iceland needs financial assistance to maintain its essential imports from the Western Hemisphere. The only alternative for Iceland would be to enter into closer trade relations with the Soviet Union and other eastern countries. Iceland's Western Hemisphere deficit for the period April 1, 1948-June 30, 1949, is estimated at 12.7 million dollars (July 1, 1947, prices). This total represents a revision downward of the requirements stated by Iceland to the CEEC, which revision was made by United States technicians after studying Icelandic needs and taking account of anticipated availabilities. Further reductions would seriously reduce the Icelandic standard of living, which, while above the near-depression prewar level of 1939, is nevertheless well below that prevailing in 1946.



Mauritius

THE FISHERIES OF THE ISLAND OF MAURITIUS, 1946:^{1/} Fishing Grounds and Fishes: The Island has a coast line 152 miles long. A coral reef, sometimes of the barrier type, but generally of the fringing type, runs parallel to most of it. A lagoon,



UNICORN FISH

very wide in the Grand Port and in part of the Black River districts, is thus formed and covers about 95 square miles, including partly open bays and estuaries. The total shallow area where coastal fishing is exercised is approximately 125 square miles. The insular submarine shelf to the 100-fathom line is very narrow all around the Island except in the northeast and the southwest. The northeastern bank covers 150 to 200 square miles with an average depth of 25 to 35 fathoms. The southwestern bank is much smaller, only extending $3\frac{1}{2}$ miles off the Morne Brabant and covering some 20 square miles. This shelf with the two banks constitutes a natural reserve of great importance for the replenishment of the lagoon.

Though of little amplitude, the tides have an important influence on the movements of fishes and on the catch. This is also affected by the seasons, the summer season (October to May) being the more favorable time. In summer, apart from the cyclones, the weather is often calm, whereas the steady Southeast Trades blowing in winter cause rough seas on the windward side and on a large part of the leeward side of the Island.

Migratory fishes which frequent the waters in summer usually disappear with the cold season, and many of the endemic species confine themselves to greater depths.

^{1/}From a report by the American Consulate, Mombasa, Kenya, British East Africa and based on the "1946 Annual Report of the Fisheries Branch for the Colony of Mauritius."

About 600 species of fishes exist around the Island. They may be divided into the following ecological groups:

- (a) Lagoon species.
- (b) Reef species.
- (c) Bottom species living on the shelf up to a depth of 60 fathoms and known to local fishermen as "Fond" or "Gravier" species.
- (d) Deep bottom species living on the fringe of the shelf between 60 and 120 fathoms. These are known to the fishermen as "Grand Fond" species.
- (e) Pelagic species.

Fishing Methods: In the lagoon, fishing is carried on with nets, lines, and basket traps. Nets are normally forbidden in the reserved areas covering about 25 square miles. These reserves were, however, periodically fished under the control of the Fisheries Branch during the period of war emergency and food shortage. Traps are also used in shallow water outside the reef and some fishermen lay certain types of basket traps in depths of as much as 20 to 40 fathoms for unicorn fish. Outside the reef, line fishing is extensively carried on in two ways, by weighted lines for bottom fishing from drifting crafts and by trolling.

Basket trap fishing is practiced by the great majority of fishermen all around the coast. About 40 percent of them specialize in this, and lay as many as 15 traps each which they visit daily. The daily catch varies greatly according to locality, but industrious men can take as much as 15 to 17 pounds per day.

Net fishing was at one time entirely forbidden. It is practiced with cast nets and with "seine" nets. The latter must have square meshes not less than 3½ fms (1-3/8 inches) from knot to knot, they must not be longer than 500 metres (1,640 feet) and wider than 5 metres (16 feet, 5 inches).

There are, at present, 40 large net permits, the operation of which gives employment to about 250 men, or 20 percent of the total number of fishermen.

Line Fishing: Within the lagoon, the light bamboo rod and the light hand line are in use. In deep-sea fishing, strong lines are necessary, while for surface oceanic fishes, hand lines are employed, the expensive rod and line being the privilege of sportsmen. About 12 percent of the fishing community specialize in line fishing, but the majority of local fishermen practice it from time to time. It is mostly done in passes and outside the lagoon.

In the last two decades, there has been a considerable reduction in the number of skilled line fishermen, due to a variety of factors. The reduction is revealed by the decrease in the number of pinnaces of which there were 46 in 1914 (Revenue Branch figure), 33 in 1926 (Hornell) and 20 in 1945 (Fisheries Branch Census).

Catch in 1946: The total catch recorded at all controlled stations from which catch records are collected, amounted to:

	<u>Weight in lbs.</u>		<u>Weight in lbs.</u>
Nets	886,725	' Octopus	676,032
Basket traps	1,329,663	' Lobsters	76,579
Lines	344,482	' Sharks	57,956
Sub-total	<u>2,560,870</u>	' Sub-total	<u>810,567</u>
		' Grand Total	<u>3,371,437</u>

The figures given above do not represent the total quantity of fish available for consumption. Other sources are:

1. Fish retained by the fishermen for their own consumption (estimated at 180 tons).
2. Fish caught with traps and lines and landed at uncontrolled landing stations (estimated at 200 tons).
3. Fish landed clandestinely.
4. Fish landed by sportsmen and by the hundreds of amateur fishermen, mostly sugar estate Indians who spend part of their week-ends at the sea-side fishing from the shore (estimated at 50 tons).

The total catch for the year may therefore be reasonably assessed at 2,000 tons.



Mexico

AMENDMENT TO EXPORT DUTY TARIFF: According to Diario Oficial, Mexico, D. F., dated February 9, 1948, the General Export Duty Tariff, Rule 11, was amended as follows:

RULE NUMBER 11

DETERMINATION OF THE VALUE OF MERCHANDISE FOR THE COLLECTION OF THE AD VALOREM DUTY

For the purposes of Articles 2, 4 and 5 of the Decree of November 18, 1947, which established the new General Export Duty Tariff, the following provisions shall be taken into account:

- I. The customs documents covering export merchandise definitively exported, or any other operation which could assume that character, must be accompanied by a commercial invoice issued by the shipper in which the latter declares under oath that the price contained in the invoice corresponds to the price of the merchandise in the market of the place of sale, not including freight charges, insurance, or handling charges to port of exit.

When it is a question of sales abroad covered by an officially authorized or supervised contract, the price agreed upon in the contract must be indicated in the invoice.

With regard to merchandise consigned abroad on a commission basis, the merchandise shall be assigned the market price prevailing for same in the place from which the shipment is made, as indicated in paragraph I of this fraction.

- II. All those operations of definitive exportation, or those operations which could assume that character, are exempted from the obligation imposed by the preceding fraction in all cases in which the interested party is not required to make the customs classification; and also in those cases concerning merchandise not subject to ad valorem duties. In the first instance, the value of the merchandise shall be fixed by the Customs inspector who makes the customs inspection, who, for this purpose, shall take into consideration price journals, sales slips, statistics or other documents which the interested party may submit, and who, lacking these, shall fix them as estimates and in accordance with precedents set on other similar operations.

When it is suspected that the value of the invoice is not the true one, the same procedure as outlined in the preceding fraction shall be followed, and if the inaccuracy is confirmed, the Customs inspector shall make a report in order to obtain the required administrative ruling.

III. The oath of accuracy of the value of the merchandise shall be made in the following form:

"I declare under oath of telling the truth that the price assigned to the merchandise covered by this invoice is that which the same has in the market of the place of sale."

TRANSITORY ARTICLE. This Decree shall go into effect on the day of its publication in the Diario Oficial.

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FISHING SCHOOLS: Two fishing schools are to be established in Alvarado and Mazatlán, Mexico, according to an article appearing in El Nacional, Mexico, D. F., dated March 14, 1948, to train personnel necessary for the appropriate utilization of Mexico's coastal wealth. One of the schools will be installed in the port of Mazatlán, Sinaloa, where the fishery problems of the waters of the Pacific will be intensively studied; in the other institution, which will operate in the Veracruz port of Alvarado, studies will be centered around the conditions and necessities of the Gulf Coast fishery.

Among unions of maritime workers, this project has been received with enthusiasm, since it is believed that advances in the fishing industry will bring about an increase in employment and will raise the wages currently paid.

In order to stimulate attendance, the Ministry of Marine will grant a few fellowships.



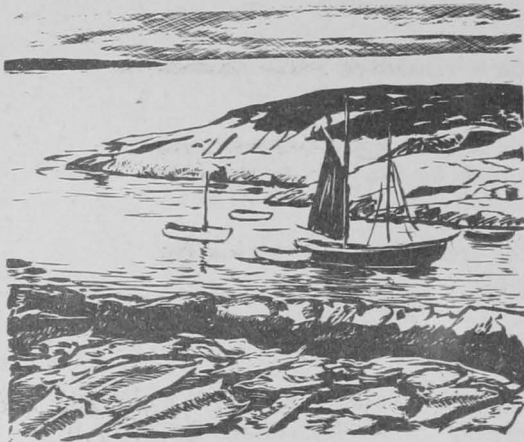
Newfoundland

REVIEW OF THE 1947 FISHING SEASON: The dominant industry of Newfoundland is the cod fishery. Approximately one-third of Newfoundland's 320,000 people are directly or indirectly dependent upon the cod fishery for a living, according to the American Consulate General, St. John's, Newfoundland.

In 1947, the production of salt cod exceeded 125,000,000 pounds, compared with 110,604,256 pounds in 1946. Owing largely to foreign exchange restrictions, exports fell off from over 110,000,000 pounds in 1946 to less than 100,000,000 pounds in 1947. 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.

For the first time since 1943, Newfoundland's production of salt cod was disposed of in the open market during 1947. Likewise in 1947, all salt cod marketing groups were merged into one association, known as the Newfoundland Associated Fish Exporters, Ltd.

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 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.



The herring fishery likewise was on a reduced scale as compared with 1946, owing partly to a poor "strike" of herring and partly to the loss of relief contracts made during and immediately after the war.

Other subsidiary branches of the fisheries generally compared favorably with 1946.

Salt Cod Production: According to the Newfoundland Fisheries Board, preliminary figures show that salt cod production exceeded 125,000,000 pounds in the calendar year 1947, and represents the largest production of salt cod since 1935 (141,792,000 pounds).

The following table compares the production of salt cod in 1947 (estimated) with that for 1946 (final figures), in pounds:

<u>Fishery</u>	<u>1946</u>	<u>1947</u>
Inshore	72,713,872	82,000,000
Deep Sea	15,250,592	22,000,000
Labrador	22,639,792	21,000,000
Total	110,604,256	125,000,000

Approximately 26,200 men engaged in the cod fishery in 1947, compared with 26,162 in 1946.

The increase in production in 1947 as compared with previous years was mainly due to the successful trap fishery on the northeast coast and to the heavy landings of the deep-sea branch of the cod fishery. On the other hand, the Labrador fishery, from the standpoint of both floaters and stationers, was again extremely poor. The total landings of salt cod would doubtless have been much greater had it not been for a poor fall fishery, resulting from very stormy weather during October and November.

Exports: During 1947, exports of salt cod reached an estimated 95,813,648 pounds. This figure, even when augmented by late returns, will be well below exports for 1946 (110,331,872 pounds).

These may be broken down by countries of destination as follows:

Newfoundland's Exports of Dried Salt Cod

<u>Country of Destination</u>	<u>1946</u> <u>Pounds</u>	<u>1947</u> <u>Pounds</u>	<u>Country of Destination</u>	<u>1946</u> <u>Pounds</u>	<u>1947</u> <u>Pounds</u>
Puerto Rico	16,205,280	17,481,632	Sundry West Indies* ...	5,591,040	4,401,264
Portugal	18,074,448	16,812,496	Canada	310,800	4,230,464
Italy	20,524,784	12,489,008	United States	940,464	3,553,424
Jamaica	10,595,200	12,328,064	Greece	8,533,056	772,000
Spain	18,577,888	7,688,800	Other Markets	5,761,952	8,730,016
Brazil	5,216,960	7,326,480	Grand Total	110,331,872	95,813,648

*In 1947, figure pertained to French West Indies exclusively.

During and immediately after the war, the marketing of salt cod had constituted no serious problem. Fish was in short supply and was under allocation by the Combined Food Board, and latterly by the International Emergency Food Council. In 1947, such controls were removed, and difficulties were encountered in opening and holding export markets. The principal markets, however, remained essentially the same as in 1946 and the same as in most of the recent prewar years. Newfoundland's leading customers for salt cod have almost always been certain European countries bordering on the Mediterranean (e.g., Spain, Portugal, Greece, and Italy), countries in the Caribbean Sea area (e.g., Puerto Rico, Jamaica), and Brazil. In 1947, these same countries took the greater part of Newfoundland's salt cod, with the main exception being Greece. Sales to this country in 1947 were impeded largely by exchange complications.

The decline in total exports reflected increased marketing difficulties, caused largely by international exchange restrictions.

The increased difficulties in marketing were largely responsible for an accumulation of stocks of salt cod more than double the year-end figure in 1946. This is shown in the following table, giving stocks at the end of 1946 and 1947. (All figures are in pounds.)

<u>Fishery</u>	<u>1946</u>	<u>1947</u>
Shore	17,783,808	39,380,320
Bank	2,518,544	2,608,928
Labrador and Newfoundland Soft Cure	<u>9,992,080</u>	<u>25,833,472</u>
Total	30,294,432	67,822,720

Marketing: For the first time since 1943, Newfoundland's catch of salt cod in 1947 was disposed of in the open market. As mentioned in the previous section, from 1943 through 1946, the production of salt cod had been marketed in conformity with allocations fixed by the Combined Food Board and latterly by the International Emergency Food Council, at scheduled export prices.

A most important change took place during 1947 in Newfoundland's Marketing Administration System. Briefly, this was the merging of all salt cod marketing groups into one association, known as the Newfoundland Associated Fish Exporters, Ltd.--NAFEL. It is only through this Association that sales for export can now be made. Thus, the final step in the 10-year evolution of Newfoundland's Marketing Administration System has been taken, with the channelizing of salt cod exports through a single Association.

Prices: Prices obtained by exporters were the same as in 1946, with few exceptions. Fishermen, however, received about \$1.00 per quintal (112 pounds) less than in 1946; this decrease was fairly general throughout all grades of salt cod.

The failure of exporters to pay fishermen the 1946 prices was due to marketing uncertainty which prevailed until late in the fall, when the Government intervened to facilitate exports to sterling areas. It is assumed that this Government assistance will be continued at least through 1948, and this may make possible the payment of the equivalent of 1946 prices to fishermen during the coming season.

Foreign Fishing on the Grand Banks: French and Portuguese vessels continued to be active in fishing off the Grand Banks during 1947. Such foreign fishing, of course, all but disappeared during the war, but it is now resuming its pre-war importance.

French vessels enjoyed another successful season in fishing on the famous Newfoundland Grand Banks. During 1947, 15 French trawlers engaged in this fishery, compared with 10 in 1945. The catch during 1947 compared favorably with 1946 and with any prewar year.

Seven trawlers from Portugal prosecuted the fisheries off the Grand Banks in 1947, compared with 6 in 1945 and 1946. In addition, over two score smaller vessels engaged in the Grand Banks fishery, about the same number as in 1945 and 1946.

The growth of foreign fishing fleets off the Grand Banks is of immediate concern to Newfoundland. Portuguese fishing in particular has attracted wide attention, as Portugal has for centuries been one of the largest buyers of Newfoundland's salt cod. The Portuguese National Fleet is reported to have increased over 50 percent since 1941, and to have acquired larger and more modern vessels.

Frozen Cod: Marketing difficulties made the year 1947 almost disastrous for the frozen fillet branch of the cod fishery. Exports of fresh frozen fillets had mushroomed during the war years from a figure of about 6,500,000 pounds in 1940 to approximately 34,000,000 pounds in 1945. Exports dropped off slightly in 1946, and then fell off sharply to 12,490,574 pounds in 1947. Production of fillets other than cod increased, particularly in the case of haddock, but even with these added to the cod fillet figure, total exports of all fillets in 1947 amounted to 17,044,487 pounds—about half the figures for 1945 and 1946.

Fourteen quick-freezing plants operated during 1947, compared with 15 quick-freezing and 3 sharp-freezing plants in 1946—representing a capital investment of over \$5,000,000. A total of only 25 filleting plants operated in 1947, compared with 45 in 1946.

The following shows exports of cod fillets from Newfoundland during 1947, with figures for 1946 in comparison (all figures in pounds):

<u>Country of Destination</u>	<u>1946</u>	<u>1947</u>
United Kingdom	13,118,260	300
United States	12,725,095	8,157,643
Canada*	6,809,391	4,254,746
Others	4,515	77,885
<u>Total</u>	<u>32,657,261</u>	<u>12,490,574</u>

*Includes chilled round cod.

While exports to the principal markets fell off sharply, those to the United Kingdom all but reached the vanishing point.

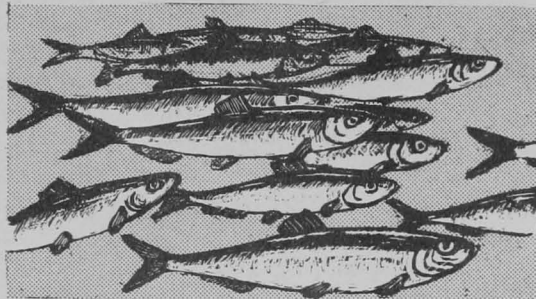
The sharp drop in production and exports was due to the loss of contracts made during the war years with the United Kingdom, and to inability to exploit the United States market on a large scale. Loss of the United Kingdom market was anticipated, but it had been hoped that exports to the United States would be maintained or even increased. In this respect, meat prices in the United States are one controlling factor—and present high prices encourage local exporters to hope for increased fillet exports to the United States in 1948.

Nevertheless, it appears clear that exports of fillets will continue for some time to come on a scale considerably reduced as compared with that of the war period. This decline in importance of the frozen fillet industry has been highly disappointing to those who had during the war held out the hope of building up the in-

dustry to a point where it might rival the salt cod fishery in value. The frozen fillet branch of the fisheries is one of the first of Newfoundland's industries to lose the export markets which the war made possible for Newfoundland (the herring fishery being another).

Herring: As was the case with frozen cod, the herring branch of the fisheries declined sharply in 1947, owing to the loss of markets previously artificially created by the war.

During the war years, the herring fishery grew to comparatively large dimensions owing principally to the exceptionally great demand for pickled herring for relief purposes by UNRRA. Thus, export figures for all types of pickled herring showed an increase from about 10,000,000 pounds in 1940 to nearly 65,000,000 pounds in 1946. Preliminary estimates of the Newfoundland Fisheries Board indicate that exports of pickled herring during 1947 will approximate 32,000,000 pounds, about one-half the 1946 figure.



HERRING

The 1946-47 fall-winter pack of Newfoundland Scotch cure herring totaled 20,082 barrels (5,020,500 pounds) as against a contracted quantity of 33,000 barrels (8,250,000 pounds). Contracts were again made early in 1947 with UNRRA for the supply of hard cured, split, pickled herring for relief purposes, amounting to 50,000 barrels (11,250,000 pounds) at 6 cents per pound, United States currency, and a second contract for 25,000 barrels at 6 cents per pound, Canadian currency. Of the total of 75,000 barrels (16,875,000 pounds) contracted with UNRRA, the equivalent of 69,548 barrels (15,648,425 pounds) was packed.

A contract for the supply of up to 4,000 barrels of Labrador Scotch cure herring was arranged by the Board, but this fishery was almost a complete failure, and only 217 barrels (54,250 pounds) were packed.

The Newfoundland Fisheries Board arranged a contract for the export of 18,000 barrels (4,500,000 pounds) of Scotch cure herring during the 1947-48 fall-winter season. It is doubtful if the full amount of this order will be packed, as the "strike" of herring was relatively poor in 1947.

As has been the case in recent years, the Fisheries Board during 1947 fixed minimum export prices for dressed and filleted herring, and also controlled the quantity to be packed by allocating individual quotas--both steps being taken in order to arrange more orderly marketing than would otherwise prevail.

The Fisheries Board has disclosed that for some time it has been endeavoring to form an association of herring packers to handle the sale and export of pickled herring, in cooperation with the Board.

Seal Fishery: In 1947, the seal fishery continued the expansion which commenced during the previous season.

Twelve vessels (including one steamer), crewed by 352 men, accounted for 34,241 seals, valued at \$119,993 in 1946. This catch was more than tripled in 1947 when 3 steamers, 15 motor vessels, and 684 men accounted for 105,725 seals.

Lobsters: Exports of live lobsters during 1947 recorded an all-time high of 3,146,000 pounds, with practically the entire production being exported to the United States and Canada. This was a substantial increase over the 1946 figure of 2,581,537 pounds. A recent innovation in the export of live lobsters has been the delivery of several shipments from Newfoundland direct to the United States by air freight.

During recent years, canned lobster has accounted for only a very small percentage of the total production. During 1947, exports of canned lobster approximated 110,000 pounds compared with the 1946 figure of 193,487 pounds.

Salmon: Exports of fresh and frozen salmon during 1947 totaled approximately 2,000,000 pounds, a slight decrease from the 1946 figure of 2,126,773 pounds, and well below the average prewar annual figures. For several years prior to the war, Newfoundland's exports of fresh and frozen salmon averaged anywhere from 3,000,000 to 4,000,000 pounds annually, the principal outlet for this product being the United Kingdom. During the war years, however, the frozen salmon output suffered a severe set-back when import was prohibited by the United Kingdom Government. The prewar position has not as yet been recovered.

Canned and pickled salmon, once forming the major portion of Newfoundland's salmon exports, are now only produced on a relatively small scale. Exports of canned salmon during 1947 totaled about 52,000 pounds, compared with some 38,000 pounds in 1946. Exports of pickled salmon totaled 114,000 pounds, compared with 124,000 pounds in 1946.

Whaling: Newfoundland's whale fishery continued the expansion which began in the early war years. In 1947, 455 whales were caught and about 1,000,000 imperial gallons of whale oil produced, compared with 529 whales caught and 760,949 imperial gallons of whale oil produced in 1946. Total guano production was about 4,700,000 pounds, compared with 3,845,330 pounds in 1946.

Whaling operations in 1947 were conducted by two companies, employing 7 whaling vessels--compared with 6 vessels in 1945 and 1946.

Squid: For a period of years prior to 1945, the supplies of squid appearing on Newfoundland coasts were low. With their reappearance in coastal waters during 1945, however, the export of dried squid was resumed, but only on a comparatively small scale. Production during 1947, however, was greater than for several years past. The relatively small catch of about 2,000 barrels in 1946 has received such high prices that, as a result, when squid were found to be prevalent in 1947, fishermen brought in between 10,000 and 11,000 barrels. A considerable number of men abandoned the cod fishery in order to fish for squid.

Unfortunately, it has not as yet been possible to market this relatively large catch of dried squid. The regular Chinese market was eliminated by import regulations imposed by the Chinese Government. Between these import restrictions and exchange difficulties, the marketing of a catch five times as large as that of 1946 has presented a most difficult problem. Thus far, only very small sales have been made to a few Chinese merchants at Singapore and Bangkok, and to importers in Canada and the United States.

Fish Oils: As a result of negotiations among the Fats and Oils Committee of the International Emergency Food Council, representatives of exporters, and the Newfoundland Fisheries Board, the total 1947 production of Newfoundland fish oils--

with the exception of refined cod liver oil--was again allocated to world markets by the International Emergency Food Council.

Exports of fish oils for 1947, as compared with 1946, were as follows, in imperial gallons (1 imperial gallon equals 1.20094 U. S. gallons).

Type of Oil	1946	1947
Common Cod Oil	499,192	595,171
Refined Cod Oil	421,400	346,352
Poultry Oil	4,039	4,694
Whale Oil	621,623	961,307
Sperm Oil	56,241	51,185
Seal Oil	131,768	415,071
Herring Oil	4,785	35,249
Dogfish Oil	48	-
Rosefish Oil	-	3,921
Total	1,739,096	2,412,950

Canned Fish: In 1947, a new canning factory came into operation on the west coast. Only 7,000 cases (of 20 pounds each) have been packed in 1947-48 up to February 1, 1948, but this relatively low output has been due to: (1) an unusually poor herring fishing season, and (2) lack of trained employees.

Fish Offal: Late in 1947, a new plant went into operation to process fish offal. Production will be on a limited scale until the cod fishing season opens in spring, when it is hoped that large-scale processing will be undertaken.

Locally Built Marine Engines: The industry started in 1944 for the manufacture of small marine engines for fishermen has continued to expand. During 1947, about 45 $7\frac{1}{2}$ -horsepower motors were shipped, bringing the total number of deliveries since the inception of the industry to 180. In addition, 175 5-horsepower motors were delivered, bringing total deliveries to 300. For the first time, work was commenced on $3\frac{1}{2}$ -horsepower motors, 20 being shipped during 1947. Operations are expected to expand during 1948.

PROSPECTS FOR 1948: The Salt Cod Fishery: Marketing difficulties arising largely from foreign exchange complications are expected to mar the 1948 salt cod season. At least half of Newfoundland's exports of salt cod normally go to European countries in the sterling area, and the loss of these markets would be disastrous to Newfoundland's fisheries--and would quickly transform a relatively prosperous economy into a bankrupt one.

During prewar years, when certain European countries were short of sterling, Newfoundland was able to continue exporting salt cod to them through inclusion in Trades and Payments Agreements made between the European countries concerned with the United Kingdom. In 1947, as described earlier in this report, Newfoundland could not even convert sterling into dollars, and the Government of Newfoundland had to intervene and pay dollars for equivalent sterling deposited in the Bank of England. This procedure will very likely be repeated in 1948.

However, intervention by the Government obviously cannot continue on an indefinite basis. The extent of Government aid is limited by the amount of Government surplus available in dollars, and it is by no means certain that the Government would be willing to utilize its dollar surplus up to the point of total exhaustion.

If the export problem can be solved, the salt cod fishery should be entirely successful in 1948. There are no reasons for expecting any substantial change in the volume of production, or in the number of men engaging in the fishery. Prices obtained by exporters for salt cod during 1948 are expected to approximate those prevailing in 1947.

Frozen Fillets: The outlook for the fresh frozen filleting industry is for a season about the same as in 1947. This branch of the cod fishery fell off sharply in 1947, and there appears to be no reason to anticipate any marked revival to production and export levels attained during the war years.

The United Kingdom has disappeared as a market for Newfoundland's fillets and future hopes appear to rest upon potential development of the United States market. In 1947, the United States took two-thirds of Newfoundland's total exports of 12,500,000 pounds, and this figure is almost certain to be exceeded in 1948 by perhaps a few million pounds. The leading exporting firm plans further use of airplanes for shipping a portion of the fillets to the United States market.

The Geneva Trade Agreements froze the United States duty and quota on Newfoundland fillets for three years, which will enable exporters to enter the market with more confidence than in 1947.

The rapid growth of Newfoundland's frozen fillet industry was a direct result of World War II, and had its counterpart in the fisheries of Norway, Iceland, the United States, and Canada--Newfoundland's chief competitors. Buyers (often Government agencies) were usually not too particular about price or quality because of the urgent need of food. Additionally, as the war progressed, foods, and in particular, meats, became scarce, with the result that the consumption of fish jumped rapidly to new highs. Since the war, conditions have gradually reversed themselves, and partly for this reason, the long range position of Newfoundland's frozen fish industry has become uncertain and weak.

The principal weaknesses affecting the industry may be summarized as follows:

- (1) Diminishing consumption of all fish foods in the United States as meat becomes more plentiful.
- (2) Efforts of Newfoundland's principal competitors to concentrate on Newfoundland's main potential market--the United States.
- (3) Insufficient distributing facilities and insufficient advertising.
- (4) Excessive retail prices as compared with prices of other well advertised foods.

In addition to the above external weaknesses, there are a number of purely local difficulties--some susceptible to control and others not. Among the local handicaps beyond control are:

- (1) Lack of a home market of any consequence, making the industry wholly dependent upon export markets--a situation which does not apply in any competing country.
- (2) Remoteness from consuming markets, necessitating large storage facilities in proportion to total production, which in turn entails high capital costs and carrying charges.
- (3) Production of only one species of fish; i.e., cod fillets (United States production, as a contrasting example, is diversified by a large production of rosefish, among other species).

- (4) Necessity of importing and paying transportation charges on all plant equipment and packaging material; and
- (5) Insular position of Newfoundland which entails added costs of freight and insurance on products from Newfoundland to the mainland--as contrasted with position of United States, but similar to position of other competing countries.

Among the handicaps susceptible to control are:

- (1) Almost entire lack of modern methods of fishing, resulting in uneconomic catches per man.
- (2) Lack of centralization, which increases cost of management and general overhead charges, makes it uneconomical to operate plants for processing the offal which amounts to approximately 60 percent of landed weight.
- (3) The system of cutting and trimming large quantities of fish remote from freezing plants and then hauling the fillets long distances in warm weather by ordinary trucks over rough roads, thus impairing quality; and
- (4) Utilization of separate selling agencies in the United States by Newfoundland operators, making selling costs higher than if the selling were channeled through one agency.

Subsidiary Fisheries: It appears that the herring industry, which was greatly stimulated by UNRRA orders during and immediately after the war, will continue to contribute substantially to fishery production and exports during 1948. It is understood that, at the present time, Newfoundland representatives are negotiating with the United States Department of the Army for a contract calling for delivery of about 20,000 tons of herring. If successfully negotiated, this contract would rival in size and importance the huge UNRRA orders made during the war period.

The herring industry will also benefit by the new canning factory on the west coast, and by the dehydrating factory which produces herring oil.

The seal fishery should have another successful season in 1948. Aerial surveys will again be utilized to assist the seal fishing fleet in spotting seals and in reporting general conditions of ice.

Other branches of the fisheries are expected to approximate 1947 levels.

