



## Angola (Portuguese West Africa)

**CANNED AND DRIED FISH EXPORTS:** Angola's fishing industry which is centered in the district of Mocamedes reported exports during 1947 of 1,301 tons of canned fish, such as tuna and similar varieties, according to a report from the American Consulate at Luanda, Angola. Decreased production is attributed to smaller catches and the urgent need of tinplate for the manufacture of containers.

Exports of fishery products to the United States as certified at the Consulate at Luanda during 1947 included 154 tons of canned tuna fish, 15 tons of fish liver oil, and 8 tons of shark liver oil.

Angola's Exports of Principal Fishery Products

Product	1947		1946		1928 <sup>1/</sup>
	Metric Tons	Value U.S.\$	Metric Tons	Value U.S.\$	Metric Tons
Canned Fish.....	1,301	519,973	2,341	985,070	232
Dried Fish.....	8,104	1,177,562	10,174	1,177,562	10,763
Fish Meal.....	6,675	550,824	7,429	307,494	-
Fish Guano.....	56	2,261	-	-	-
Totals.....	16,136	2,250,620	19,944	2,470,126	10,995

<sup>1/</sup> Value not available

In addition to canned fish, Angola, during 1947, was able to export 8,104 tons of dried fish, of which the Belgian Congo was the principal purchaser. The Union of South Africa imported 6,675 tons of fish meal from the colony during 1947.

Among the imports, the only fishery products were canned sardines from Portugal and dried cod from the United States. During 1947, 44 metric tons of canned sardines valued at \$47,325 were imported into Angola, compared to 24 metric tons valued at \$27,458 in 1946. In addition during 1947, 2,200 pounds of dried fish were imported.



## Brazil

**SHRIMP FISHERY:** The amount of shrimp available in Brazilian territorial waters and in the high seas off Brazil has never been determined, according to a consular report from Rio de Janeiro. It is known that shrimp are available in varying numbers all along the coast, and the latitude and temperature of these waters would lead to the belief that a shrimping industry comparable to that in

North American sub-tropical waters is possible. Any study of the Brazilian fishing industry should take into account the Brazilian Government's recent action to prohibit the exportation of foodstuffs. Fishery products are not among the items which have been exempted from this prohibition. A firm now being organized is convinced that export licenses for canned shrimp can be obtained.

There exist no statistical data concerning the present extent of Brazilian production of raw or processed shrimp. Raw shrimp are sold in all coastal cities of Brazil, but in recent years, the supply has only occasionally met the demand. The largest shrimping state is Rio Grande do Sul, where shrimp are taken from the large coastal lakes in great numbers.

Present prices now paid to fishermen in the Federal District for shrimp vary from 30 cents to 40 cents per pound for large shrimp and from 10 cents to 15 cents per pound for small shrimp. Prices in Santos are roughly equal to those in the Federal District, and prices in other ports are believed to be somewhat lower.

It is reported that there are no commercial shrimp canneries in Brazil. The shrimp which is shipped from Rio Grande do Sul to other states goes in the dried form. At least one firm in Rio Grande, Rio Grande do Sul, packs dried shrimp in cans, but the extent of this practice is not known.



## Canada

CONSUMPTION OF FISHERY PRODUCTS IN CANADA: Although the war brought about a temporary change in the distribution of fish products in Canada (largely through the setting aside of certain supplies for military and other special purposes and through the cutting off of certain sources of imports) there has not yet, apparently, been a fundamental change in Canadian eating habits with respect to fish. During the past two years, distribution has returned to the prewar pattern, according to the Canadian Fisheries Department periodical, Trade News.

In the calculations that follow, some figures, particularly those for 1947, are preliminary. They should, however, provide a basis for revision of previously published estimates of Canadian fish consumption.

The total "disappearance" of fish food products in Canada, in terms of product weight<sup>1/</sup> was 188.9 million pounds in 1945, the last war year. In 1946, the figure rose to 217.6 million pounds, and slipped back to 209.5 million pounds in 1947. The latter movement probably was related to the increase in meat supplies, but there is evidence that it was connected also with the reduction in the availability of fresh and frozen fillets in that year.

Domestic disappearance accounts for about 30 percent of Canadian production. The proportion varies among different groups of products--about 40 percent for fresh and frozen fish and less than 20 percent for cured (i.e., smoked and salted) fish. The proportion for canned fish has increased from about 10 percent during the war to 30-35 percent at the present time. Imports, negligible during the war, are still of minor importance; only a little more than 5 percent of the total disappearance of canned fish consists of imported varieties.

<sup>1/</sup> "Product weight" is the weight in the form in which the fish is marketed.

The present disappearance or consumption of fresh and frozen fish appears to be close to the prewar level. In 1947, however, there was a sizeable decrease in this category amounting to 14 million pounds as compared with the previous year, and eight million pounds less than the 1945 figure. In the case of one important constituent product--fillets of cod--consumption in 1947 was only about 11.5 million pounds as compared with about 20 million pounds in 1945 and 1946. What happened appears to have been this: production was curtailed during the height of the fishing season because of a depressed outlook in the export market, and later the revival of that market resulted in drawing away the limited supply at the expense of the domestic market.

The increasing importance of the canned product is the outstanding development in Canadian fish consumption since the war. Canned salmon has been the chief item contributing to this development, moving from about 200,000 cases in 1945 to 750,000 cases in 1947. It should be noted, however, that the low consumption in 1945 was quite involuntary, being due to wartime restrictions designed to make large quantities available for export, and that a part of the 1947 disappearance went into the replenishing of "pipeline" stocks (i.e., at wholesale and retail levels) that had become exhausted during the period of short supply.

With the exception of a few items, cured or partially-cured fish enjoys only a very small outlet on the Canadian market.

In order to show more clearly the relative importance of different types of fish products in the national dietary pattern, there is presented below a table of per capita consumption in greater detail and on an "edible weight" basis. "Edible weight" here is defined as the filleted weight for fresh, frozen and cured fish; shucked weight for shellfish; and as the product weight for canned fish. For fresh and frozen fish, the edible weight, thus defined, is somewhat over half the product weight, but it is only a little less than the product weight of cured fish.

Table 1 - Canadian Per Capita Consumption of Fish, by Products (Edible Weight)

Marketed Form	1947	1946	1945
	lbs.	lbs.	lbs.
Fresh and Frozen:.....	5.5	6.8	6.5
Sea fish, round or dressed.....	3.0	3.0	3.2
Sea fish, filleted.....	1.4	2.7	2.0
Freshwater fish.....	0.8	0.8	1.0
Shellfish.....	0.3	0.3	0.3
Cured:.....	1.3	2.0	1.7
Smoked.....	0.5	0.7	0.7
Pickled (in brine).....	0.5	0.5	0.5
Salted and dried.....	0.3	0.8	0.5
Canned:.....	4.0	3.1	1.7
Total Per Capita Consumption.....	10.8	11.9	9.9

The fish consumed as fresh or frozen, round or dressed, is made up, in order of importance, of salmon (more than a third of the total), halibut, cod and related species, followed by others of minor importance. Cod accounts for two-thirds or more of the filleted salt-water fish, and whitefish ranks first in the group of fresh-water fish.

Cod fillets is the principal product consumed in the smoked form, and a considerable quantity of kippered herring is also consumed. Canadian consumption of pickled fish is made up almost exclusively of herring, and the salted fish consumed is mainly cod (in the wet-salted and boneless dried forms).

Among canned products in domestic consumption in 1947, salmon accounted for almost three pounds per person and herring and sardines for a little under one pound.

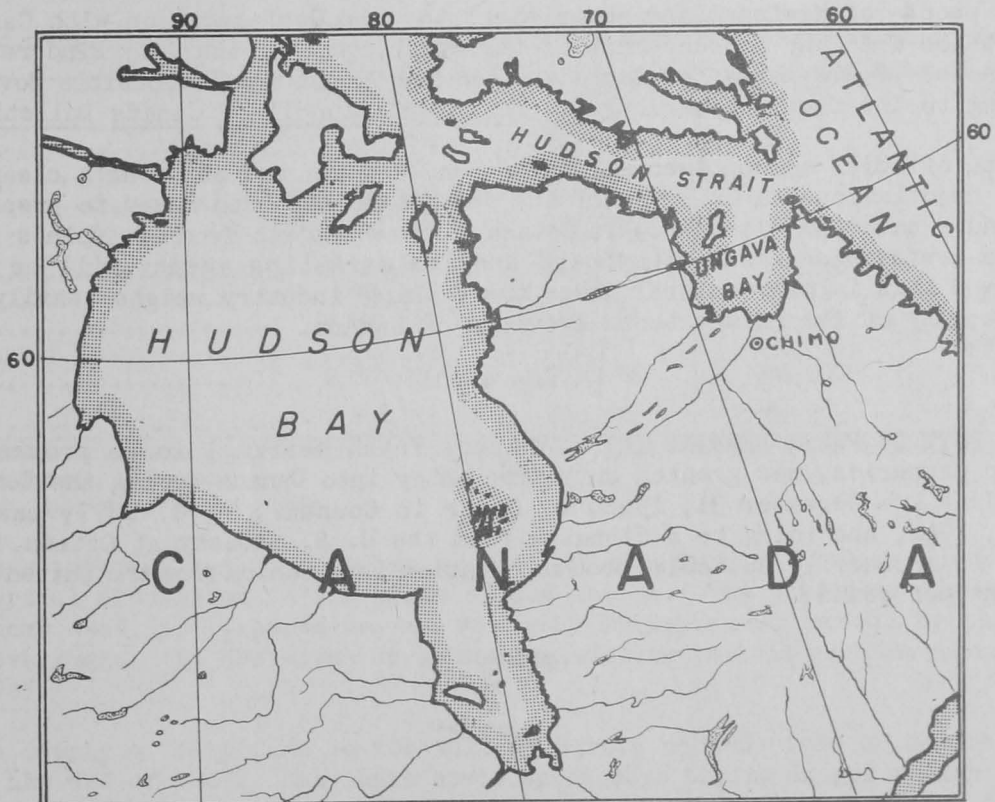
Although the per capita consumption of fish in Canada is now close to prewar levels, it is still low in comparison with the per capita consumption of other animal protein foods, as shown in the following table.

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

Protein Food	1947	1946	1945	Pre-war
	lbs.	lbs.	lbs.	lbs.
Meat (carcass wt., generally)	144.8	145.5	141.7	117.9
Poultry (dressed wt.)	21.3	21.8	25.9	18.4
Eggs (shell egg equivalent)	32.8	33.2	33.7	30.7
Fish (edible wt.)	10.8	11.9	9.9	11.9

Canadian consumption is also low as compared with that of some other countries. In the United Kingdom, for example, the prewar consumption was 26.7 pounds per capita and at present it is about 31.0 pounds. In making comparisons of this kind, however, one must take into account the variation in conditions of distribution and in eating habits among different communities. In Canada, the great distances that separate points of production from the centers of population create a transportation problem unknown in most other countries. The greater number of the people also are conditioned by tradition and experience against the eating of fish. In expanding the domestic market, these are the obstacles that will have to be overcome.

NEW ARCTIC RESEARCH CRAFT: The recently-launched Calanus of the Fisheries Research Board of Canada, after the satisfactory completion of the trial runs off the Nova Scotian coast, will be ready to set out for the eastern Arctic.



Construction and launching of the Calanus represents another stage in the fulfillment of a program of scientific work in the Arctic which has been planned for some time by the Canadian Research Board. The studies are expected to result in biological and oceanographical findings important not only to science, but to the fishing industry as well. Actually, survey work will not get under way except on a limited extent until next spring, since time this year will allow for not much more than the transfer of the vessel from Nova Scotia to the base at Chimo on Ungava Bay. There it will be brought up on shore for the winter to await the arrival next year of the scientific staff.

Included in these investigations will be researches into the shrimp and halibut fishery as well as studies of the oceanography in Hudson Strait, Ungava Bay, and Hudson Bay. Full-fledged investigations get under way next spring.

**STUDY OF LAKE WINNIPEG FISHERIES:** The Fisheries Research Board of Canada is beginning a study of the fisheries of Lake Winnipeg which will lead to a better understanding of fluctuations in catches and help fish scientists in predictions of abundance of yield. Special attention is being given to "Selkirk whites" which are in high favor wherever whitefish are marketed. Methods of increasing the value of the catch of tullibee or lake herring will also be investigated.

To carry out these investigations, the Research Board has brought to the Lake the research boat Investigator which was used for biological research at Great Slave Lake during the past four summers. The Great Slave Lake investigation resulted in the establishment of a new commercial fishery there which now produces three million pounds of lake trout and whitefish annually.

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**NEWFOUNDLAND ELECTS TO JOIN CANADA:** The controversial question as to whether or not the people of Newfoundland would elect to join Confederation with Canada has been settled with the announcement of the final count of the July 22nd referendum which showed 78,408 votes for Confederation and 71,464 for Responsible Government, according to the Canadian periodical, Fisheries Council of Canada Bulletin.

With official announcements from London, Ottawa, and St. John's clearing the way for negotiations, a Chairman of the delegation has been named to prepare Newfoundland's case for discussion in Ottawa. Press reports from St. John's indicate that the Newfoundland Fisheries Board and its marketing agency will be a chief topic, and this is only natural since the fishing industry weighs heavily in the total economy of the future tenth province of Canada.

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**NO DUTY ON FRESH HERRING INTO CANADA:** Fresh herring, to be processed in Canadian canneries, was granted duty-free entry into Canada during the temporary period June 1 - December 31, 1948, by Order in Council, P. C. 2877, passed on June 26, 1948, according to a dispatch from the U. S. Embassy at Ottawa. Fresh herring is ordinarily dutiable, upon importation into Canada from the United States at  $\frac{1}{2}$  cent per pound.



## Costa Rica

**ESTABLISHMENT OF DEPARTMENT OF CONSERVATION AND FISHING:** The Government of Costa Rica on July 27 decreed the establishment of a special Department of Conservation and Fishing to function as a dependency of the Ministry of Agriculture and Industries, according to a report from the American Embassy at Costa Rica.

The new Department will attend to all matters relative to the conservation, exploitation and control of the fauna existing in the seas adjacent to the continental and insular coasts and rivers of Costa Rica. Besides technical functions, statistics, scientific investigation, etc., to be undertaken by the Department, it will control the strict observance of the conservation laws.

**EXTENDS SOVEREIGNTY OVER CONTINENTAL SHELF:** The Government of Costa Rica in Decree No. 116, issued during July 1948, extends its sovereignty for 200 miles over the seas adjacent to its coasts and insular possessions. Costa Rica in proclaiming sovereignty and national jurisdiction over the continental and insular undersea platform or shelf adjacent to the continental and insular coasts of the territory of Costa Rica, states this to be modelled upon the Presidential Proclamation of the United States of America in September, 1945; the United States of Mexico in October, 1945; the Argentine Republic in October, 1946; the Republic of Chile in June, 1947; and the Republic of Peru in August, 1947.

**PRODUCTION OF IMPORTANT FISHERIES, 1947: Tuna Industry in 1947:** Exports of tuna in 1947, both fresh and canned, were almost double the 1946 total. Canned tuna was exported almost exclusively to other Central American and South American countries, while fresh (frozen) tuna was exported exclusively to the United States. The following table, which gives tuna exports since 1937, as compiled from data of the Dirección General de Estadística, indicates a steady expansion in this industry.

Tuna - Exports from Costa Rica, 1937 - 1947

Year	Fresh <sup>1/</sup>		Canned	
	lbs.	U.S. \$	lbs.	U.S. \$
1937 <sup>2/</sup> .....	277,574	19,250	--	--
1938 .....	7,400,727	453,787	--	--
1939 .....	7,465,260	413,441	--	--
1940 .....	4,203,280	244,432	--	--
1941 .....	1,843,184	147,920	--	--
1942 .....	2,345,847	117,703	17,186	4,058
1943 .....	991,481	73,078	45,485	20,092
1944 .....	1,900,787	413,182	22,999	9,587
1945 .....	1,432,618	112,759	498,333	185,167
1946 .....	2,818,200	202,000	706,200	311,000
1947 .....	3,858,534	404,239	3,205,473	516,962

<sup>1/</sup> Includes only tuna cleared through customs; fish caught offshore and carried direct to California not shown.

<sup>2/</sup> First year exports were made.

The subject of the tuna fisheries rose to the fore in 1947 as an object of controversial discussion in the press of the nation. The questions involved included gear used, i.e., purse seines vs. bait boats, and taxation by the Costa Rican Government. No decisions or solutions relating to this problem were arrived at in 1947.

The supply of bait fish in the Gulf of Nicoya showed signs of severe depletion by the end of 1947. Many bait boats spent days trying to get enough bait to

make worthwhile a trip out to sea in search of tuna. Whether or not the bait fish will come back--that is, recover in numbers through natural increase--remains to be seen. At present most bait boats make a long trip to Panamanian waters in search of bait.

Shark Fishery: The total tonnage of shark livers exported in 1947 was 219 metric tons, as compared with 105 tons shipped in 1946. However, the total value of the 1947 tonnage was only \$53,061, as compared with \$79,000 for the 1946 shipments. Towards the end of the year, catches had dropped off greatly and in the opinion of several local fishermen Costa Rican waters have been fairly well fished out as far as sharks are concerned. The shark carcasses continue to be discarded as heretofore.

Turtles: Export shipments totaling 78 metric tons, valued at \$3,790, were recorded on this commodity in 1947. In 1946, 127 metric tons were exported, valued at \$5,000.



## Ecuador

TUNA PURSE SEINING IN ECUADOREAN WATERS: An Executive Decree No. 1206-A signed July 2, effective from July 6, and published in Registro Oficial No. 240 of Ecuador, revokes the prohibition on the use of nets in tuna fishing in mainland and Galapagos waters and modifies fishing permit fees. According to a dispatch from the U. S. Embassy at Quito, this permits use of purse seiners, the first of which were expected in Ecuador in early August. Decree 1296-A also reduces permit fees for first, second, and third and subsequent trips to U.S. \$8.50, \$7.50, \$6.50, respectively, but leaves the annual consular matriculation fee at U.S. \$300. Decree also establishes 60 days as effective period for written permits and 45 days for radio permits for fishing vessels of California registry.

Permitting of net fishing is expected to result in a considerable increase in Ecuador's revenues from foreign fishing vessels and a considerable increase in the number of fishing vessels in Ecuadorean waters.



## Italy

FISHERIES AND MARKETS: Introduction: Despite the fact that Italy has a very long coastline, Mediterranean waters around the country are not prolific in fish, and as a result, Italy has traditionally been an important market for fish products. Prior to 1945 (when sanctions and Mussolini's self-sufficiency campaign destroyed the Canadian market), Italy was an important Canadian outlet, particularly for Canadian dried salted cod (baccala) and canned salmon, according to a report submitted by a former Canadian Commercial Secretary in Rome and published in the Canadian Fisheries Department periodical, Trade News. Since then, Italy has tended to buy more and more of its supplies from Scandinavian sources (Icelandic and Danish salted fish have found a preference; canned salmon has not been marketed for several years). Current shortages of hard currency may help to perpetuate these conditions.

Market, 1947: In the first nine months of 1947, Italy produced 235.2 million pounds of fish, of which 93 million pounds were anchovies, sardines, and mackerel; 117 million pounds were other fish; 18.2 million pounds were shellfish; and 7 million pounds were crustaceans.

However, this domestic production was insufficient to satisfy market requirements. In the first eleven months of 1947, a year which saw only a partial return to normal trade, she was also able to import about 200 million pounds of fish, which included: 42 million pounds of fresh or frozen fish; 98 million pounds of dried salted cod; 15 million pounds of stockfish; 4.2 million pounds of salmon, and other dried, salted, or smoked fish; and 25 million pounds of herring and pilchards, salted, pickled, or in brine. The principal sources of supply were Norway (25 percent), Denmark (20 percent), post-UNRRA relief and commercial shipments from U.S.A. and Canada (14 percent), Iceland (12 percent), and Belgium (7 percent).

Compensation Agreements and Methods of Payment: The interesting point about the list of sources is that, with the exception of the U.S.A. and Canada, whose shipments were mostly of a relief nature, the principal imports were from countries with which Italy has compensation or payment agreements. By these present arrangements, Italy is committed to purchase large amounts of fish products per annum.

Methods of payment may also have considerable influence in determining who trades with whom.

In terms of lire, Canadian and United States fish payable in dollars is non-competitive, and in any case, the Italian Government would not grant licenses for fish payable in hard currency as long as it is available in sufficient quantities from other sources. To a certain degree, this may be mitigated by the European Recovery Plan, but to the extent that fish is available elsewhere, any European country will tend to use its limited funds under the plan for the purchase of other commodities not obtainable from soft-currency countries.

Prices:

C.I.F. Import Prices	
Item	¢ per lb.
Danish large mackerel .....	app. 8
Danish cod fillets .....	" 16
Danish wet salted cod .....	" 12
Danish dried salted cod .....	" 18
Norwegian dried salted cod .....	as low as 17
Norwegian dried salted sey (pollock) .....	app. $\frac{61}{5}$

Fish Import Rules and Regulations: As was well known to exporters to Italy before the war, there were special regulations with respect to the embossing or lithographing (in a clear, indelible manner) of certain information on the covers of each individual can. These regulations were suspended in respect to UNRRA and post-UNRRA relief shipments, but have always been applicable to commercial shipments.

Furthermore, all fish food products preserved in cans or in other containers imported into Italy, must be accompanied by a sanitary certificate stamped and signed by the government authority of the country of origin. The rules and regulations are fairly complex.





## Netherlands

**NEW METHOD FOR PRODUCING VITAMIN D-3:** Two young Netherlands chemists, who are working in a laboratory in Eindhoven, have developed a method for producing synthetic Vitamin D-3 at a cost considerably below the present price of cod liver oil, used hitherto by persons in need of that vitamin, according to the Netherlands Trade and Industry of July 15, 1948.

The chemists have developed a substance called "Chosterol" which, when exposed to radiation, sheds Vitamin D-3.

It is reported that production on a large scale will not only supply Holland's requirements, but will also leave a surplus for export.

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**SIGNS TRADE AGREEMENT WITH U.S.S.R.:** Trade agreements have been signed by the Netherlands with the U.S.S.R., according to the August 14th issue of the Canadian periodical, Foreign Trade.

The agreement is for an indefinite period and quantities are to be fixed every twelve months. Under the terms of the U.S.S.R.-Netherlands agreement, initiated in Moscow on June 10, 1948, the U.S.S.R. will supply various important raw materials, while the Netherlands will provide herring and other manufactured products and raw materials.



## Norway

**FISH-ALBUMEN TO PALESTINE:** Norway is exporting 50 tons of albumen concentrate to Palestine, according to a recent Oslo report. This concentrate (synthetic egg white) represents a new Norwegian product and is derived from fish by a Norwegian firm. The same firm is also responsible for the extensive laboratory work leading to the commercial production of this product. Trial exports have earlier been sent to a number of European lands, including Germany, and the product has also had a limited sale in Norway.

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**TRADE AGREEMENT WITH BIZONIA:** The new trade agreement with Bizonia stipulates Norwegian exports of about \$34.8 million and German exports of about \$16 million, according to the August 24 issue of Norway Digest of the Royal Norwegian Information Services.

Under the agreement, Norway will export fish to a value of \$16 million; whale oil, \$6.8 million; and wood pulp, \$5 million. From Germany, Norway will import coal, machinery, scrap-iron, steel, textiles, and chemicals.



## Republic of the Philippines

**CANNED SMOKED OYSTERS:** Canned smoked oysters, a new exportable product suitable for production in the Philippines were tested by fisheries experts in a

recent session at the Philippine Fishery Program laboratory in Rizal City, according to an announcement by the U. S. Fish and Wildlife Service Philippine Fishery Program and the Philippine Bureau of Fisheries on July 29. This delicacy is the first of what is hoped to be a series of such products that the two agencies are planning to develop.

The Director of the Philippine Bureau of Fisheries, has indicated that there are several large areas in the Philippines suitable for oyster cultivation. Some of these areas are in partial production at the present, but the possibilities of expansion of the oyster industry, particularly in the estuaries of the north-central provinces of Luzon, are very promising.

The chief technologist of the Philippine Fishery Program, under whose supervision the experiments on oyster canning were carried out, believes that smoked oysters would make a good specialty item for production in areas where no market for fresh oysters exists, or where transportation to the fresh market is difficult. However, to make a satisfactory product, oysters must be canned when they are fat. The best season is believed to be during the months of May, June, July, and August in central Luzon. Hence, the oyster industry, so far as the actual canning operation is concerned, would be seasonal.

NEW VESSEL ADDED TO FISHERY FLEET: A new demonstration fishing vessel, the David Starr Jordan, was added to the fleet of exploratory vessels now being operated by the Philippine Fishery Program of the Service in early September.

The new vessel, which is a small American all-purpose fishing boat, was shipped from Seattle, Washington, on August 15th. This vessel has been found to be the answer to small fishing operators' problems. It is sea-worthy, has ample power, is economical, efficient and can be devoted to any one of five types of major fishing effort used in the Philippines. It can longline or bait-fish for tuna; drag or otter trawl; or fish seines and gill-nets, as the occasion arises. In the northwestern part of the United States such vessels have proved themselves to be the best proposition for the fisherman with small capital who has to operate throughout the year. They can be worked at all seasons and can be speedily adapted to the segment of the fisheries that are at the time the most profitable.

The vessel is small by many standards, being 54' long with a 13'6" beam and 30 gross tons, with a 135 h.p. Diesel engine with auxiliary generating and pumping equipment; carries a fathometer, direction finder and radio telephone; and will have a crew of five persons in addition to two scientific personnel when needed. It is capable of carrying 40,000 pounds of iced fish.

It is believed that just as American fishermen have found this to be a highly efficient and useful craft, Filipino interests will likewise see the advantages possessed by such an all-purpose vessel. It is one of the answers to the mechanization problem in the Philippine fisheries.

