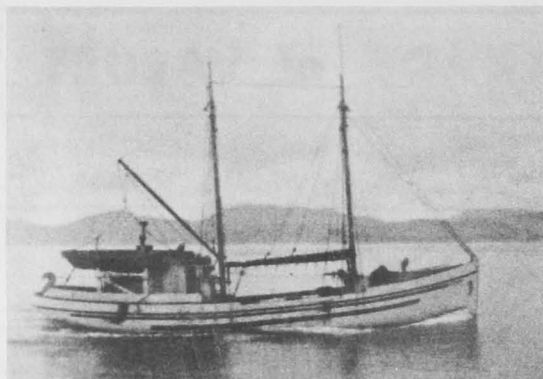


International

INTERNATIONAL PACIFIC HALIBUT COMMISSION

NORTH PACIFIC HALIBUT REGULATIONS FOR 1961:

Fishing for halibut will begin May 10 in all North Pacific areas except in Bering Sea and waters west of the Shumagin Islands, according to the recommendation of the International Pacific Halibut Commission to the Governments of the United States and Canada.



A typical Pacific Coast halibut schooner.

In light of the scientific findings and discussions with the industry, the Commission is recommending to the two Governments the following regulations for the 1961 season:

Fishing areas shall be: Area 1A--south of Heceta Head, Oreg.; Area 1B--between Heceta Head and Willapa Bay, Wash.; Area 2--between Willapa Bay and Cape Spencer, Alaska; Area 3A--between Cape Spencer and Shumagin Islands; Area 3B South--waters west of Area 3A, not including Bering Sea; Area 3B North--waters in Bering Sea. The only change in areas from 1960 is the division of Area 3B into two sections.

Opening date for halibut fishing in all areas shall be May 10 (at 6:00 a.m.), except in Areas 3B South and 3B North.

Opening date for Area 3B North shall be at 6:00 a.m., April 10; for Area 3B South shall be at 6:00 a.m., April 25.

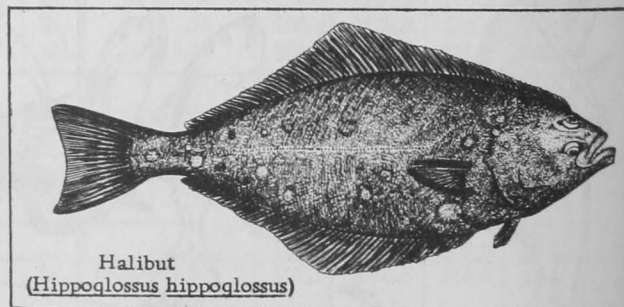
In Area 1A there shall be one fishing season, without catch limit, extending from 6:00 a.m. May 10 to 6:00 a.m. October 1 or to the closure of Area 3A, whichever is later.

In Area 1B there shall be one fishing season, identical in duration to that in Area 2, and without catch limit. (In the last few years there were two fishing seasons for this area.)

In Area 2 there shall be one fishing season, with a catch limit of 28 million pounds, commencing on May 10 and terminating at time of attainment of the catch limit. (In the last few years there were two fishing seasons for this area; in 1960 the quota for the first season was 26.5 million pounds and no quota for the second season.)

In Area 3A there shall be one fishing season, with a catch limit of 33 million pounds, commencing on May 10 and terminating at the time of attainment of the catch limit. (In 1960 the quota was 30 million pounds.)

In Area 3B South there shall be one fishing season, without catch limit, extending from April 25 to October 1 or to the closure of Area 3A, whichever is the later.



In Area 3B North there shall be one fishing season without catch limit, extending from April 10 to October 1 or to the closure of Area 3A, whichever is later.

No areas shall be closed to halibut fishing that hitherto were referred to as nursery areas.

The Commission also announced that the 1962 annual meeting will take place at Seattle,

International (Contd.):

Wash., commencing January 16. The Commission has taken under advisement the possibility of meeting at other Pacific Coast ports from time to time.

Dr. William M. Sprules of Ottawa, Ontario, Canada, was elected Chairman and Andrew W. Anderson, of Washington, D. C., Vice Chairman for the ensuing year.

The International Pacific Halibut Commission early in February 1961 concluded its thirty-seventh Annual Meeting at Prince Rupert, British Columbia, with Chairman Andrew W. Anderson presiding.

While the Commission during the past 36 years has held Public Hearings in Prince Rupert and other British Columbian and Alaskan ports, this is the first occasion that it has held its Annual Meeting on the Pacific Coast other than at the headquarters of its scientific staff in Seattle.

Other members of the Commission are Dr. William M. Sprules, Vice Chairman; Harold Helland of Prince Rupert and Richard Nelson of Vancouver representing Canada; and Mattias Madsen of Seattle and William A. Bates of Ketchikan representing the United States.

The Halibut Commission is responsible to Canada and the United States for the investigation and regulation of the halibut fishery of the northern Pacific Ocean and Bering Sea. Its specific function is the development of the stocks of halibut to levels that will permit the maximum sustained yield, and its decisions regarding regulation are based upon the findings of its scientific staff.

During the past 29 years of Commission management, there has been progressive improvement of the stocks and increases in annual yield. The annual catch which had declined to 44 million pounds in 1931, the year before regulation, has averaged about 68 million pounds during each of the past four years. The 1960 catch of 71.8 million pounds, the highest annual catch ever taken, was worth nearly \$12 million ex-vessel to the fishermen and vessel owners of Canada and the United States.

At a public meeting on February 7, the Commission reviewed the past year's fishery and the research conducted by its scientific staff.

At several executive sessions the Commission dealt with administrative matters and approved the research program of the staff for 1961. It also held a session with representatives of the halibut fishermen's, vessel owners', and dealers' organizations. The suggestions for regulations in 1961 were discussed at that meeting.

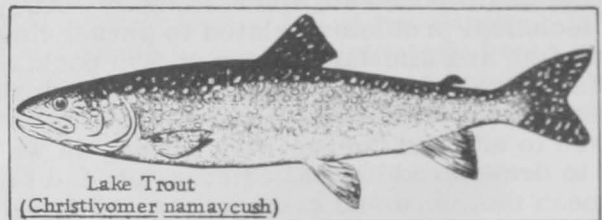
Since in the past the United States and Canadian Governments have accepted the recommendations of the Commission without changes, it is fairly certain the 1961 regulations as recommended by the Commission will be approved by the two Governments.

Note: Also see Commercial Fisheries Review, April 1960 p. 33.

GREAT LAKES FISHERIES COMMISSION

UNIFORM FISHERY REGULATIONS BEING DRAFTED:

Model legislation is being drafted to establish uniform regulations for commercial and sport fishing in the Great Lakes, following a meeting early in 1961 held in Ann Arbor by a special committee of the Great Lakes Fisheries Commission.



Lake Trout
(*Christivomer namaycush*)

Essentially, the proposed legislation will give conservation agencies in each member state of the Commission power to regulate commercial and sport fishing under a standard set of rules, according to administrative procedures they must follow in their respective states.

The purpose of this is to provide another concerted approach to solving problems troubling Great Lakes fisheries. There are some marked differences in state regulations covering the same waters. The need for uniform regulations is also tied in with long-range efforts already under way to rebuild fish populations, particularly lake trout, in the Great Lakes.

GENERAL FISHERIES COUNCIL FOR THE MEDITERRANEAN

LEBANON BECOMES 13TH MEMBER:

Lebanon has become the 13th member of the General Fisheries Council for the Medi-

International (Contd.):

terranean (GFCM). The Mediterranean country joins France, Greece, Israel, Italy, Monaco, Morocco, Spain, Tunisia, Turkey, the United Kingdom, United Arab Republic, and Yugoslavia on the nine-year old Council.

The GFCM, Food and Agriculture Organization (FAO)--sponsored, will hold its next meeting in early 1963. The Council normally meets every two years, and met last at FAO Rome headquarters in September 1960.

The Council's task, broadly, is the development and proper utilization of the aquatic resources of the Mediterranean. It assembles and publishes oceanographical and technical information such as the GFCM Studies and Reviews, and undertakes cooperative research and development projects needed to provide information on the Mediterranean's aquatic resources.

At its last session, the Council adopted recommendations and resolutions calling for joint action in the field of tagging tuna, an oceanographic survey of the eastern part of the Mediterranean, and a study by FAO of technical problems related to preserving tuna fish and standardization of fish packing. A tentative catalog of Mediterranean fish was presented at this session and the Council voted to add and correct this catalog as well as to draw up additional catalogs of Mediterranean molluscs and crustaceans and freshwater fish.

Under GFCM rules, a request by an FAO member country to join the Council makes the country an automatic member.

JAPAN-SOVIET NORTH PACIFIC FISHERIES COMMISSION

SCIENTIFIC-TECHNICAL SUBCOMMITTEE TALKS OPEN 1961 SESSION:

The opening in Tokyo of the plenary sessions of the Japan-Soviet North Pacific Fisheries Commission, originally scheduled for January 23, 1961, was delayed until February 20, 1961, because of the illness of the Chief Soviet Delegate and Chairman of the Commission. Because of the delay in the opening of the regular meetings, Japanese and Soviet representatives of the Commission agreed to hold scientific-technical subcommittee meetings from February 6.

The first meeting was taken up with greetings, introduction of delegates, the exchange

of statistical data on salmon catch and other scientific-biological information, and the announcement that it had been agreed by Japanese and Soviet representatives that a United States observer would be permitted to attend the subcommittee sessions.

At the second and third sessions held on subsequent days, the Soviet delegation presented an explanation of the data which it had presented to the Japanese, to which the Japanese responded by asking a number of questions on methods used by the Soviet scientists in compiling the data.

In general, the press has reported that the Soviets have taken the position that: (1) there is evidence that salmon resources are decreasing each year; (2) 1961 should be a good year but it will not be as good as in past years because of the declining trend of salmon resources; (3) this declining trend of salmon resources has been particularly noticeable in the important Kamchatka area which accounts for roughly three-fourths of the Far East Pacific catch; (4) the concept of good and bad years is no longer valid because of the declining resources; and (5) the declining resources have been due to Japan's overfishing in areas outside the restricted zone.

According to the Japanese press, the Japanese have commented as follows on the Soviet position: (1) it appears that the Soviet side's conclusions with respect to the trend in salmon resources are based on its findings off the coast of Kamchatka; (2) the Soviet side appears to want to extend the restricted fishing area solely on the basis of its poor salmon catch last year; and (3) the Soviets are generalizing with respect to the nonrestricted area on the basis of the catch figure within the restricted area. The press reported also that the Japanese side plans to probe thoroughly the methods by which the Soviet data were obtained and compiled, and then to consider fully the adequacy of those data. (United States Embassy, Tokyo, February 10, 1961.)

MARINE OILS

WORLD PRODUCTION OF MARINE OILS, 1957-61:

World production (estimated) of marine oils (includes whale and sperm whale oils and fish and fish-liver oils) in 1961 is expected to be about the same as in 1960.

Indicated increases in whale oil and sperm oil are expected to be offset by a smaller out-

International (Contd.):

Estimated World Production of Marine Oils, 1957-61					
Marine Oils	1961 ^{1/}	1960 ^{2/}	1959	1958	1957
	(1,000 Short Tons)				
Whale	440	430	415	435	440
Sperm whale	125	115	125	135	110
Fish (including liver)	475	490	525	470	485
Total	1,040	1,035	1,065	1,040	1,035

^{1/}Forecast
^{2/}Partly forecast.

turn of fish oil. The larger estimates for whale and sperm oils reflect the addition of a new Soviet floating factoryship to the 1960/61 Antarctic fleet bringing the total to 20, one more than in 1959/60. Relatively low prices for fish oil and fish meal may discourage fish oil production in 1961. (Foreign Crops and Markets, U. S. Department of Agriculture, January 26, 1961.)

Note: Also see Commercial Fisheries Review, Feb. 1960 p. 60.

NORTH PACIFIC FUR SEAL COMMISSION

FOURTH ANNUAL MEETING:

The Fourth Annual meeting of the North Pacific Fur Seal Commission was held in Tokyo, January 30-February 4, 1961. The Standing Scientific Committee began its meetings on January 21, and the plenary session began on January 30. The meetings were held in an atmosphere of cooperation among the scientists, advisers, and Commissioners of the four delegations from Canada, Japan, the Soviet Union, and the United States.

Among the more interesting observations made by the Commission were that: (1) during the past year the numerical size of the herd on Robben Island and Commander Islands continued to increase; (2) progress was made in the management of the Pribilof herd; (3) there has been an increase in mortality among pups on the Pribilof Islands, in part because of overcrowding; and (4) there is evidence of considerable migration and intermingling of seals among the several seal islands--a considerable number of tagged Pribilof seals were found on Commander Islands, and a few as far away as Robben Island, east of Sakhalin.

The Commission reviewed the work of the scientists of the four countries and made plans for additional research to be carried on in the remaining period of life of the Convention. Plans were made for the drafting of a joint report which will eventually be

presented to the Governments of the four Parties. This report will be used as a basis for the establishment of a continuing agreement for the protection of the fur seals.

For the coming year, the U.S.S.R. Commissioner Aleksander A. Ishkov was elected Chairman of the Commission, while U. S. Commissioner Arnie J. Suomela was elected Vice-Chairman. The next Annual Meeting will be held in Ottawa beginning on February 7, 1962. The Scientific Committee will begin its meetings on January 29, 1962.

The Commission was established under the provisions of the 1957 Interim Convention on Conservation of North Pacific Fur Seals. The Commission has as its major responsibility the investigation of the fur-seal resources of the North Pacific Ocean. Each of the four countries contributes to the work of the Commission by carrying on investigations which will help determine the maximum sustainable yield from the fur-seal resources, with due regard for the productivity of other living marine resources in the area.

Investigations at sea will begin in early February on both sides of the Pacific. Investigations at the rookeries will begin in the early summer as the seals arrive at the end of their annual migration to the breeding



grounds. Under the provisions of the Interim Convention, commercial harvesting of seals at sea is prohibited. All harvesting is done on the breeding grounds under the control of the United States on the Pribilof Islands, and under the control of the Soviet Government on Robben Island and the Commander Islands. (United States Embassy, Tokyo, February 8, 1961.)

Note: Also see Commercial Fisheries Review, April 1960 p. 34.

International (Contd.):

NORTH PACIFIC SALMON

JAPANESE-SOVIET CATCH, 1960:

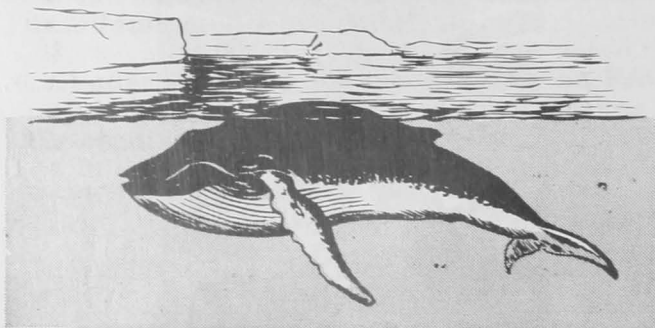
A total of 208,657 metric tons of salmon and trout were caught by Japanese and Soviet fishermen in the North Pacific in 1960. This was brought out at the scientific-technical committee meeting prior to the plenary session of the fifth meeting of the Japanese-Soviet North Pacific Fisheries Commission. Japan's catch was 139,157 tons and the Soviet's 69,500 tons.

Breakdown of the Japanese catch was 53,976 tons by mothership-type operations, 53,485 tons by drift nets, 9,213 tons by long line, and a coastal catch of 22,483 tons. (Fisheries Economic News, February 9, 1961.)

WHALING

JAPANESE-AUSTRALIAN HUMPBACK AGREEMENT:

Japan has agreed voluntarily to reduce the period during which her Antarctic whaling fleets will take humpbacks in Area IV from 4 to 2 days. This was announced by the Australian Minister for Primary Industry in Canberra on December 12, 1960. He said: "Talks on the conservation of humpback whales in the Antarctic have taken place in Tokyo between officials and whaling industry representatives of Japan and Australia. . . .



Humpback whale.

"Japan's decision could have great importance for the whaling industry on Australia's west coast, which depends for its humpbacks on the whale population that migrates each year up and down the west coast from its summer feeding ground in Antarctic Area IV.

"The other pelagic whaling countries are being notified of the outcome of the talks,

and continuation is being sought of the cooperative attitude which they evinced at the recent 12th meeting of the International Whaling Commission towards the conservation of the Antarctic humpback whales."

Humpback whaling in the Antarctic has normally been restricted to four days by the International Whaling Commission. At its annual meeting in London in June 1960 the Commission, on the initiative of Australia, decided that there should be no taking of humpbacks in Area IV for three years, and that the season for taking them in Area V (Australia's east coast whales) should be reduced from 4 to 3 days. Japan objected and the Australian-Japanese talks followed. (Australian Fisheries Newsletter, January 1961.)

**Argentine Republic**FISH MEAL PLANT ACTIVATED AT PUERTO DESEADO:

The fish meal and oil plant in Puerto Deseado, Province of Santa Cruz, Argentina, has reportedly contracted the services of an established firm with several vessels to supply it with fish and was expected to begin operations. This plant, which was constructed in 1959, has remained idle for almost one year for lack of raw material because it had been unable to induce fishermen to work in Puerto Deseado. On January 25 the first contracted vessel arrived in that city; it has a carrying capacity of 75 tons. Two similar vessels were scheduled to arrive in February.

Various fishing organizations had indicated back in August 1960 that the Puerto Deseado plant would face a shortage of fish as well as fishermen. These sources claimed that the original estimates of the amount of fish to be found off the coast of Santa Cruz were unduly high. (United States Embassy, Buenos Aires, February 6, 1961.)

**Australia**FREEZER-TRAWLER CONVERSION SCHEDULED:

A former British trawler (Southern Endeavour) from Hull, England, is to be converted into a freezer-trawler. Bought 12

Australia (Contd.):

months ago by a trawling firm of Adelaide, Australia, the vessel is at present engaged in experimental fishing in the Great Australian Bight.

A Hull man, who has been captain of the vessel on her experimental trips, returned to England and commented on the project: "It is too early yet to talk about results, but they are satisfied with the fishing part of the venture."

Much of the fish landed at Adelaide was snapper and flatheads, but some went by road transport hundreds of miles to the markets at Sydney and Melbourne. The captain went on: "The fresh fish market is finished, anyway. It is being abandoned there and the future is in frozen fish."

The marketing of the fish is to be the second stage of the venture, and freezing will naturally play an important role.

The captain is to buy the equipment in Britain and it is anticipated that the conversion of the trawler will take about six weeks. When completed, the freezing of the fish will make the vessel independent of special fish dock facilities and she will be able to land at any port. (Fish Trades Gazette, January 7, 1961.)

* * * * *

TUNA CLIPPER BOUGHT IN UNITED STATES ARRIVES:

The tuna clipper Favorite arrived in Sydney on February 2, 1961, from the United States. This is the first Australian-owned vessel designed specifically for tuna fishing.

An interesting feature regarding the purchase of this vessel (reported at about US\$340,000) is the fact that it came in under "by-law." Since this may have some bearing in the establishment of a pattern, there may be an opportunity for sales of other craft of this type in the future. It is understood that if this proves to be a helpful addition to the Eden, New South Wales, tuna fishing fleet, the firm operating the tuna canneries in Australia may be interested in purchasing additional vessels.

The vessel's refrigeration holds will carry 200 tons, or about 10,000 fish of 40 or 50 pounds each.

Its 600-hp. Diesel motor and its cruising range of 6,000 miles will enable the clipper to fish over a wide area, including waters now fished by foreign vessels.

The managing director of the Australian tuna canneries stated: "Tuna is migratory, and until now the catch has been limited to a short season when the schools are within range of local inshore fishing boats. This clipper will extend the fishing season and the canning season, and so reduce production costs.

"It will help reduce Australia's dependence upon the import of canned fish, and lead eventually to the development of an export trade."

The Favorite will also collect scientific data for the Fisheries Department to assist in the full assessment of Australia's tuna resources. (United States Consulate, Sydney, February 14, 1961.)



Belguim

FISH-MEAL PRICES, FEBRUARY 1961:

Belgium fish-meal prices early in February 1961 were slightly higher than a month earlier and were: Imported Meal: 65 percent protein, US\$78.65 per metric ton or about \$71.35 a short ton, c.& f. Antwerp (80-90 percent digestible). Domestic Whole Meal (fish solubles added): 62 percent protein, \$99.20 a metric ton or about \$90.00 a short ton f.o.b. plant (93-94 percent digestible). Domestic Regular Meal: 50-55 percent protein, \$69.50-76.45 a metric ton or about \$63.05-69.36 a short ton f.o.b. plant (about 90 percent digestible). (United States Consulate, Antwerp, February 7, 1961.)



Brazil

JAPANESE FIRM TO EXPAND TUNA FISHING ACTIVITIES:

Brazil's President has granted permission to the Japanese fishery firm operating out of Recife to expand its tuna fishing activities. At present six tuna vessels of the 300-400-ton class are fishing grounds located off Brazil from a base at Recife in Northern Brazil. About 10,000 tons of frozen tuna a

Brazil (Contd.):

year are processed for local consumption. (Fisheries Economic News, January 31, 1961.)



Burma

NEW FISHING COMPANIES ESTABLISHED:

An agreement between a Burmese fishing firm and a Japanese fishing corporation to establish a jointly-owned fishing company was signed on December 14, 1960. According to a newspaper report of December 31, 1960, the capital for the project has been fixed at 15 million kyats (US\$3.1 million). Profits will be shared on a 60-40 basis, with the Burmese company receiving the larger share. The Japanese firm will furnish the fishing fleet--two 240-ton motherships and 24 carrier and fishing vessels. The two motherships and four of the vessels were scheduled to arrive by the end of January, with fishing due to start in February. The Burmese partner is to undertake to obtain fishing licenses, meet local operating costs, and act as selling agent. Operations will take place along Burma's coast, and the motherships will cure fish and shrimp and manufacture fish paste on board, putting into port at long intervals to discharge the products.

Other newspapers report the formation of another fishing company, a joint venture of the Government's Defense Services Institute and a Singapore fishing company. The Institute is reportedly providing security and supervision through its Burma Fisheries Limited, and the Singapore company providing trawlers, crews, and equipment. According to a Rangoon newspaper (December 12), two vessels of the joint venture made a good catch of eastern shad weighing about 19,800 pounds on their first trip in December 1960, off the Cape of Negrois, Bassein District. (United States Embassy, Rangoon, January 6, 1961.)



Canada

FISHERIES LANDINGS, 1960:

Canadian marine fisheries landings during 1960 totaled 1,667.6 million pounds (val-

ued at C\$87,9 million) as compared with 1,948.4 million pounds (valued at C\$94.9 million) in 1959--a decrease of 14.4 percent in quantity and 7.3 percent in value. Lower landings of cod in the Maritime Provinces and both salmon and herring in British Columbia were primarily responsible for the

Canadian Marine Fisheries Landings, 1960				
Species	Landings		Value	
	1960	1959	1960	1959
	.. (1,000 Lbs.) (C\$1,000) ..	
Atlantic Coast:				
Cod	603,392	642,312	16,823	17,113
Haddock	95,322	111,949	3,690	4,971
Pollock	57,608	46,302	1,262	919
Alewives	7,674	11,723	143	186
Herring	243,332	234,001	3,681	3,364
Lobsters	50,072	45,631	18,041	17,322
Pacific Coast:				
Halibut	1/33,477	2/30,908	1/5,433	2/5,800
Salmon	74,036	106,376	17,012	20,503
Herring	186,588	444,032	2,702	7,355
1/Including 6,750,000 pounds (C\$1,123,000) landed in U. S.				
2/Including 7,110,000 pounds (C\$1,402,000) landed in U. S.				

lower landings in 1960. Increases in the 1960 landings of Atlantic Coast-caught pollock and lobsters and West Coast halibut partially offset the sharp decline in the landings of cod, salmon, and herring.

* * * * *

NEW BRUNSWICK FISH MEAL PRICES, MID-FEBRUARY 1961:

Since the latter part of 1960, both the domestic and export prices of fish meal on Canada's east coast have increased by about \$9 a ton.

Fish meal prices (60 percent protein) quoted by three of the largest New Brunswick dealers in mid-February this year ranged from C\$81-84 a short ton (\$1.35-1.40 a protein unit) f.o.b. shipping point. Prices for export were the same as prices to domestic users.

One firm reported a price of \$91 a ton (\$1.40 a protein unit) for 65 percent protein meal.

Another firm reported that because of high freight costs they were unable to sell fish solubles competitively and they did not produce any. (United States Consulate, Saint John, N. B., February 14, 1961.)

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USE OF MARINE OILS IN EDIBLE PRODUCTS DECLINES:

As Canada's margarine and shortening industries continue to expand, the use of marine

Canada (Contd.):

Canada's Use of Marine Oils in Margarine and Shortening 1957-1960					
Item	Jan.-July		1959	1958	1957
	1960	1959			
. (Million Lbs.)					
Margarine:					
Production	91.3	81.6	152.2	145.6	130.6
Marine oils used	6.4	7.6	12.8	19.8	17.1
Percent (%)	7.0	9.3	8.4	13.6	13.0
Shortening:					
Production	90.0	89.5	160.1	163.3	152.0
Marine oils used	2.6	3.2	5.1	16.7	26.4
Percent (%)	2.9	3.6	3.1	10.2	17.3

Note: Data are on refined-oil basis.

and fish oils by those industries decreases. Increased competition from other fats and oils (especially soybean and cottonseed) is largely responsible for this decline. (U. S. Foreign Agricultural Service Report, Ottawa, Canada, October 7, 1960.)

REACTIVATION OF BRITISH COLUMBIA WHALING INDUSTRY IN 1961 DOUBTFUL:

Negotiations between the British Columbia whaling firm and the fishermen and allied workers union over a contract leading to resumption of operations by the whaling firm failed when the union rejected the company's final offer.



Cutting whale blubber into chunks for the "digesters." History of British Columbia whaling goes back to the early part of the century when as many as 1,000 whales were taken annually by several whaling stations. Only one station has been in operation in recent years.

The industry, shut down since 1959, was hopeful that agreement would be reached, thus permitting the whaling fleet to put to sea. Bargaining, however, broke down when the union rejected the company's demand for a two-year contract and a revised agreement not open to review during the life of the contract.

The proposed operation was a joint venture, involving not only the British Columbia firm, but a Japanese company which sought to import the whale meat into Japan for human consumption. (United States Consulate, Vancouver, February 8, 1961.)



Denmark

FISH MEAL PRICES, JANUARY 29-FEBRUARY 4, 1961:

Export prices for Danish herring meal were being quoted at 850-890 Danish kroner per metric ton (US\$111.81-117.08 a short ton) f.o.b. Esbjerg, during the week of January 29-February 4, 1961. Protein content averaged about 70 percent. Prices for the week ending January 7, 1961, were 783-787 Danish kroner per ton (US\$103.00-103.53 a short ton), and one small order of higher protein herring meal for Switzerland brought 865 kroner a ton (US\$113.80 a short ton).

Prices quoted for the week ending February 4, 1961, were 9.0-12.7 percent higher than those for the week ending December 10, 1960.

There were no export sales of fish solubles during the week ending February 4, 1961. (United States Embassy, Copenhagen, January 18, 1961.)

FISHERY TRENDS, 1960:

The decline in the quantity and prices of Danish landings of industrial fish--declines which have been due primarily to the loss of export markets because of Peruvian competition--continued during the final quarter of 1960. Fish meal exports dropped 47.5 percent, or from 59,000 metric tons in 1959 to only about 31,000 tons in 1960; the decline in value was even greater (63.6 percent), from 74 to 27 million kroner (US\$10.7-3.9 million).

Denmark (Contd.):

Exports of most varieties of fresh and frozen fish increased, however, rising in value from 275 million kroner (US\$39.9 million) in 1959 to about 300 million kroner (US\$43.6 million) in 1960. During 1960, the United Kingdom, Germany, and Sweden remained the best customers for Danish fish products, with sales to the United States, especially of rainbow trout and frozen fish fillets, dropping appreciably.

Greenland fisheries increased output substantially, especially production of frozen fillets and canned shrimp. Faroese fish exports continued to rise, with ever-increasing emphasis on fresh, salted, and frozen fish and less on dried cod.

Fishing interests in the Faroe Islands ordered five steel vessels from an East German shipyard when the East German authorities let it be known that they would continue to import Faroese fish only if vessels were purchased from East German yards. (United States Embassy, Copenhagen, January 12, 1961.)

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SALMON INDUSTRY OF DENMARK AND GREENLAND:

Small-scale salmon fishing, with a catch averaging about 100 metric tons annually, was pursued in eastern Baltic waters for many years prior to 1950 by Danish fishermen, primarily based on the island of Bornholm. In 1950 the catch jumped to over 1,000 tons, and annual landings have averaged around that figure ever since. Landings at Danish ports totaled 955 tons in 1959 and about 870 tons in 1960, with an additional 30 tons being directly landed by Danish craft in Swedish ports in 1959 and some 40 tons in 1960.

Almost all the Danish catch of the Atlantic salmon (*Salmo salar*) comes from the Baltic, especially from the waters between Öland and Gotland; northeast of Christian's Island; along the coast of Memel down to Brusteort; and around Danzig Bay. The salmon season is October-April, with the 1960/61 season's catch running about 50 percent higher than the preceding season, but on about the same level as during the 1958/59 season.

Comparatively little of the Danish salmon catch is consumed domestically, with more than two-thirds exported fresh or frozen. Most of the remainder is smoked, part of it for the export trade. Only minor quantities are canned.

Total Danish exports of fresh and frozen salmon exceeded 600 tons valued at about ten million kroner (about US\$1.5 million) in 1960. Sweden remains the principal customer for fresh salmon, but shipments of frozen salmon to France have become increasingly important.

	Fresh			Frozen		
	Quantity	Value		Quantity	Value	
	Metric Tons	1,000 Kr.	US\$ 1,000	Metric Tons	1,000 Kr.	US\$ 1,000
Sweden	218	3,780	548	7	77	11
France	11	204	30	84	1,763	256
Switzerland . .	55	705	102	13	171	25
Finland	45	799	116	4	46	7
Norway	41	604	88	13	164	24
West Germany .	55	663	96	8	105	15
Netherlands . .	11	165	24	4	49	7
Belgium	12	182	26	-	-	-
United Kingdom	-	-	-	7	87	13
United States .	-	-	-	9	85	12
Italy	6	84	12	-	-	-
Other ^{2/}	1	8	1	8	48	7
Total	455	7,194	1,043	157	2,595	377

^{1/}Based on preliminary unofficial statistics from Ministry of Fisheries. This table includes 29 tons valued at 344,000 kroner (\$49,883) directly landed in Sweden, January-November. Statistics on direct landings in Sweden during December are not yet available, but such landings are estimated at 10-15 tons. The table also includes re-shipment of salmon delivered to Denmark from Greenland, but not direct exports from Greenland.

^{2/}Includes about one-half ton frozen salmon delivered to United States Armed Forces in Europe.

The major sales to the United States were during October, when almost 15,000 pounds of frozen salmon sold for 61,900 kroner (\$8,976); and during December, when 4,960 pounds brought 23,543 kroner (\$3,414).

Exports of frozen salmon have gone as far afield as Iran, Lebanon, Australia, Morocco, Liberia, and Czechoslovakia.

In addition, during 1960 some 90 tons of smoked salmon, valued at about 2.2 million kroner (\$319,000), were exported, primarily to Switzerland, Sweden, and France.

Denmark's wholesale trade in salmon is concentrated in the main fishing ports, especially at Bornholm, with the wholesalers also handling most of the export trade. How-

Denmark (Contd.):

ever, exports on behalf of individual fishing cooperatives are handled by a central agency, Dansk Andelsfisk.

Salmon fishing for commercial purposes is a very recent development in Greenland, and is the result of the planting of Atlantic salmon spawn in Greenland waters a few years ago. Production during the short September-December season is estimated at about 60 metric tons for 1960, as compared with less than 30 tons in 1959, and about ten tons in 1958. The increased production in 1960 permitted the sale and shipment to Gloucester, Mass., of 90,000 pounds of frozen salmon during December. This was the first (and so far, only) such sale to United States interests. The remainder of the catch was either frozen or salted and shipped to Denmark.

Det Gronlandske Fiskerikompani A/S, which from its parent organization, the Greenland Trade Department, holds a monopoly of the Island's fish trade, is reluctant to estimate the 1961 season's catch closer than within a 10- to 100-ton limit. Uncertainty as to the run of the still comparatively small numbers of fish, coupled with the fact that the salmon season coincides with that of the economically-vital cod catch--and hence requires diversion from cod fishing--makes that reluctance understandable. (United States Embassy, Copenhagen, January 30, 1961.)



Ecuador

CANNED SARDINE IMPORTS PROHIBITED:

Information from unofficial sources in Ecuador indicates that an unpublished regulation of the Ecuadoran Monetary Board dating from December 21, 1960, prohibits all imports of canned sardines for an undetermined period.

According to Ecuadoran importers of canned sardines, the prohibition of canned sardine imports is designed to protect Ecuador's production of canned sardines packed in tomato sauce. It is believed that the current prohibition of all canned sardine imports will be changed to a prohibition of imports of canned sardines packed in tomato sauce

and an increase in present duties on canned sardines packed in oil.

There is every reason to believe that the indicated prohibition of imports of sardines packed in tomato sauce and an increase in the duties on sardines packed in oil will substantially decrease such United States exports to Ecuador. The c.i.f. value of canned sardine and salmon imports by Ecuador in 1959 totaled 4.3 million sucres (US\$247,000), of which 3.8 million sucres (US\$218,000) represented imports from the United States. (United States Embassy, Quito, January 19, 1961.)

Note: Values converted at rate of 17.4 sucres equal US\$1.

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PROFITS FROM SHRIMP FISHERY DECLINE:

According to an officer of one of Ecuador's leading fishing companies, "this industry is sick." Although tuna fishermen do well, the dominant shrimp industry has declined since the 1953-54 boom year when shrimp brought US\$1.05-1.09 a pound. Two factors contributed to the decline: first, lower prices; and second, increasing competition. A third possible factor, the proposed United States import tariff on shrimp would, according to spokesmen, mean the end of the shrimp industry in Ecuador, which exports almost all production to the United States.

Following the big profits of 1954, the industry grew steadily in size and total catch. The increasing number of fishermen and declining prices, however, combined to make individual profits less, so that by 1958 conditions became difficult. During 1959-1960, three of the smaller shrimp-fishing companies failed. As a result of the series of lean years, during which needed repairs and maintenance to vessels were postponed, the fishing fleet is now reportedly in bad repair with some vessels idly anchored and others returning prematurely from trips, due to breakdowns, which cuts further into profitable operations. (United States Consulate, Guayaquil, January 31, 1961.)



El Salvador

SHRIMP INDUSTRY:

The Salvadoran shrimp industry is new, with first recorded production of any magnitude beginning in 1957. Fishing grounds ex-

El Salvador (Contd.):

tend along the entire Pacific Coast, with dispersion fairly general in the area. Catches drop about 10 percent in the months April-September, from levels of the rest of the year, but this apparent seasonal variation is based on only a few years' experience. Shrimp are processed (frozen, and perhaps peeled and deveined) in four plants, one located in San Salvador, two in the port of El Triunfo, and one in the port of La Union. At present there appears to be little interest in further mechanization or additional processing such as breeding or canning. Local consumption of shrimp is believed to be well under 1 percent of exports to the United States (1960 basis), and exports to other countries are believed to be negligible. U. S. Customs records first reported shrimp from El Salvador in 1957. Since 1957 data from the same source show the following: 1958, 1,130,000 pounds; 1959, 1,838,000 pounds; and 1960, 6,699,000 pounds.

It is estimated that about 90 percent of landings in 1959 were Penaeus stylirostris (predominant) and Penaeus occidentalis.

Table 1 - El Salvador's Landings^{1/} of Shrimp by Size Classes, 1960

Size	Pounds	Percentage
Under 10's	1,530,230	25
10/15's	1,658,406	27
16/20's	612,203	10
21/25's	551,465	9
26/30's	586,729	9
31/35's	210,795	3
36/42's	113,125	2
43/50's	521,426	8
51/55's	283,205	5
56/60's	52,605	1
Whitemeat	87,275	1
Number Two	25,500	-
Total	6,235,964	100

^{1/}Data from Salvadoran fishing firm representing 42 vessels out of 66-vessel fleet fishing in 1960. Data believed to be representative of industry totals.

At the end of 1960 there were 66 vessels fishing in Salvadoran waters, according to trade sources. About seven older boats were 35 footers, with the rest roughly between 45 and 65 feet long. Almost all of the larger boats were made by a firm located in St. Augustine, Fla., and are equipped with a double rig. The entire fleet is Diesel-powered. Decisions to make additions to the present fleet will probably be deferred awaiting completion of the United States tariff discussions under way. If exports to the United States remain possible and financing is available, additions to the present fleet might be made through the purchase of additional United States vessels.

Ownership of the present fleet resides in Salvadoran companies, but there is some foreign capital (largely Panamanian, Mexican and Portuguese) in these firms.

There are no local export controls or subsidies on shrimp. Vessels using the port of El Triunfo pay a municipal landing charge of one centavo per pound (US\$8 per short ton) for all shrimp and fish brought in. The fishing companies are subject to the national corporation tax (5 percent), and stockholders pay graduated income taxes up to 44 percent on dividends received.

Dock workers, cleaners, and packers are paid at a rate of about 5 colones (\$2.00) per day. These wages are high by local standards since most agricultural workers receive 2 colones (\$0.80) daily plus a meal.

Fishermen are paid from 300 to 400 colones (\$120-160) per month. Captains and ship mechanics receive considerably more, but their pay includes bonuses tied to the size of catches.

The trade estimates that the present 66-vessel fleet can expand production to about 12 million pounds a year. It appears likely that the total fleet size, which increased greatly in 1960, will not expand much in 1961, due to the threat of United States tariff action and also the need for existing companies to amortize their present large investments. Further expansion in later years will depend upon experience gained in foreign markets plus increased knowledge of the potential of the Salvadoran shrimp grounds.

The Salvadoran shrimp industry has created a new source of national employment which is important in a country of chronic underemployment. The industry-wide payroll probably covers about 900 individuals.

Table 2 - El Salvador's Employment in the Shrimp Fishing and Processing Industry (Based on 28 Boats Under Direct Management)

Job Title	No.
Captains	28 (1 per boat)
Mechanics	28 (1 per boat)
Fishermen	54
Port workers	25
Carpenters, land mechanics	25
General handymen	50
Packers, cleaners	150 (mostly women)
Administration	15
Truck drivers	5
Total payroll	380

As indicated in the country's sales pattern, the production side of the industry is

El Salvador (Contd.):

almost completely linked with the United States market. Basically the industry can only produce efficiently for export, since its final product is too high-priced to encounter much local demand.

It is also interesting to note that thus far, the industry has probably generated about the same value of United States exports as its over-all sales to the United States. The St. Augustine, Fla., shipyard sold 44 boats to Salvadoran firms. These vessels have cost, on average, nearly \$50,000 f.o.b. Florida each, or close to \$2.2 million for these vessels alone. Some of these vessels came here under Export-Import Bank financing, in an effort to encourage the new market for boat sales. Additional supplies and equipment are also imported from the United States. Through 1960 the Salvadoran shrimp industry probably spent about \$5 million for United States vessels, equipment, and expendable items. In addition, the fleet is a heavy user of Diesel fuel, which is marketed here

The principal objective of the new firm is to develop greater facilities for the production and distribution of frozen fish. At the present time, only a small percentage of France's total fish production is frozen and the facilities for marketing frozen fish are limited. According to reports, there were only 700 freezer cabinets in all the retail fish outlets in France at the end of July 1959. In view of the relatively large financial resources of the new company, the creation of Peche et Froid may have a significant impact on the marketing of frozen fish in France. (United States Embassy, Paris, December 9, 1960.)



German Federal Republic

FISH MEAL PRICES, FEBRUARY 8, 1961:

Prices reported on the Hamburg Commodity Exchange as of February 8, 1961, for fish meal delivered ex-Hamburg warehouse, or c. & f. West German sea port were as follows:

Type of Fish Meal	Protein Content (%)	Delivery	DM/Metric Ton	US\$/Short Ton
German fish meal	55-60	prompt/Feb. 1961	495.00	106.88
" " "	60-65	" " "	535.00	115.51
" " " std. brands	60-65	Feb.-Mar. 1961	570.00	123.07
Peruvian fish meal	65-70	prompt	490.00-500.00	105.80-107.96
" " "	65-70	Feb. 1961	455.00	98.24
" " "	65-70	Mar. 1961	445.00	96.08
" " "	65-70	April-June 1961	440.00	95.00
Icelandic herring meal	70-75	Feb. 1961	565.00	121.99

Note: Values converted at rate of 4.2017 deutsche marks equal US\$1.

only by United States oil companies. Thus, from an over-all viewpoint, the value of shrimp exports probably did not match outlays to United States firms until late 1960, if then. (United States Embassy, San Salvador, January 24, 1961.)



France

NEW COMBINE TO PROMOTE SALE OF FROZEN FISH:

Four French fishery firms operating in Boulogne-sur-Mer have united to form the Societe Peche et Froid. One of the most important producers of frozen fillets in France will head the new organization whose shares total some US\$3 million. The facilities of the new company include a fleet of fishing trawlers, two canning factories, a fish-freezing plant, and a commercial network equipped to handle frozen fish.

Fish meal prices on the Hamburg exchange on February 8, 1961, continued the upward trend for both domestic and imported fish meal that began in December 1960.

Note: Also see Commercial Fisheries Review, March 1961 pp. 59 and 60.

* * * * *

SHRIMP INDUSTRY:

Endeavors to develop peeling machines capable of processing small West German sand shrimp have so far not been successful. The shrimp industry employs "cottage workers" to peel shrimp. The financial situation of the shrimp industry is not good.

The 36 West German shrimp canneries employ conventional autoclaves and other canning equipment. Shrimp breeding is not carried on in West Germany.

Only an insignificant part of West German shrimp production was frozen as of Decem-

German Federal Republic (Contd.):

ber 1960 because of the lack of freezing equipment.

The shrimp catch is graded as follows:

- (a) feed shrimp used for admixture in poultry feed (about 1,000-1,400 count heads-on, and
(b) edible shrimp for human consumption (about 200-250 count heads-on a pound).

ernization of vessels through subsidization of interest rates for commercial loans. The shrimp industry is making little use of such aid, because of its strained financial position and the uncertainty over the future of the West German shrimp industry due to the steady decline in shrimp landings.

Family ownership and operation of shrimp vessels predominate.

Table 1 - West German Shrimp Landings, 1956-1960

Year	Total Catch			Feed Shrimp			Edible Shrimp		
	Quantity ^{1/} Metric Tons	Value		Quantity ^{1/} Metric Tons	Value		Quantity ^{1/} Metric Tons	Value	
		DM1,000	US\$1,000		DM1,000	US\$1,000		DM1,000	US\$1,000
1960 (est.) . . .	24,600	7,220	1,718	21,000	2,540	605	3,600	4,680	1,114
1959	25,798	7,471	1,778	21,384	3,026	720	4,414	4,445	1,058
1958	28,471	8,545	2,034	22,313	2,482	591	6,036	5,616	1,337
1957	34,832	8,209	1,954	29,070	3,150	750	5,762	5,059	1,204
1956	32,888	7,183	1,710	27,476	2,858	680	5,412	4,325	1,029

^{1/}Heads-on weight.

The number of vessels engaged in shrimp fishing decreased from 674 in 1955 to 570 in 1960. About three-fourths of the present shrimp fleet consists of vessels of 30-40 feet in length powered by 40-50 hp. Diesel engines. The remainder ranges from small motor launches to 50-foot vessels powered by 75 hp. Diesel engines.

Currently, vessel operators pay DM 120 (US\$28.56) a metric ton for Diesel fuel, as compared to nonsubsidized consumers who pay DM 560 (US\$133.28) a ton. The Government subsidy to vessel operators amounts to a refund of excise tax and import duty totaling DM 368 (US\$87.58) per ton and an outright subsidy of DM 70 (US\$16.66) per ton.

The West German Government is prepared to facilitate the construction and mod-

There are no controls, subsidies, or taxes on the export of shrimp from West Germany.

Manual shrimp peelers are paid DM 0.14 (3 U. S. cents) per 500 grams (almost 18 oz.) of unpeeled shrimp. One worker peels an average of about three kilograms (6 lbs. 9.6 oz.) of shrimp per hour. Peelers are paid a bonus of DM 0.10 (2 cents) for every 50 grams (1.8 oz.) of shrimp delivered in excess of 1,500 grams (3 lbs. 5 oz.) of shrimp meat per 5,000 grams (11 lbs. 5 oz.) of unpeeled shrimp. Shells must be returned to the contractor.

Wages paid by West German fish canners are as follows:

Unskilled workers performing heavy duties: under 18 years of age DM 1.59-DM 1.64 (US\$0.38-0.39) per hour; from 18-20 years of age DM 1.93-DM 1.97 (US\$0.46-0.47) per

Table 2 - Average Ex-Vessel Gross Income and Its Distribution for West German Shrimp Vessels with Self-Employed Fishermen, 1956-59

	1959 ^{3/}			1958 ^{2/}			1957 ^{1/}			1956 ^{1/}		
	Value		Percent	Value		Percent	Value		Percent	Value		Percent
	DM	US\$		DM	US\$		DM	US\$		DM	US\$	
	(Average Per Vessel)											
Gross proceeds of catch	16,716	3,978	100	21,900	5,212	100	18,722	4,456	100	15,929	3,791	100
Wages and social insurance . . .	4,630	1,102	27.7	4,450	1,059	20.3	3,726	887	20	3,489	830	22
Fuel, oil, coal	1,270	302	7.6	3,460	823	15.8	3,060	728	16	2,657	632	17
Maintenance of vessel and gear	2,006	477	12.0	2,230	531	10.2	1,928	459	10	1,846	439	11
Vessel insurance	384	91	2.3	240	57	1.1	115	27	1	120	29	1
Interest on loans	251	60	1.5	310	74	1.4	271	64	1.5	196	47	1
Miscellaneous expenses	2,825	672	16.9	1,270	301	5.8	764	182	4	581	138	4
Depreciation	1,270	303	7.6	1,340	318	6.1	1,491	356	8	963	230	6
Net profit ^{4/}	4,079	971	24.4	8,610	2,049	39.3	7,367	1,753	39.5	6,076	1,446	38

^{1/}Based on a sample of 30 vessels.

^{2/}A larger sample in 1958, covering a total of 80 vessels, showed that the gross stock of the 30 vessels selected originally was somewhat above the over-all average of the larger sample.

^{3/}Based on a sample of 16 vessels.

^{4/}The average net worth of the shrimp fishermen's investments was estimated at DM20,000 (US\$4,760). The wage equivalent of the shipowner's work aboard his vessel is rated at about one-third the gross proceeds of the catch.

German Federal Republic (Contd.):

hour; over 20 years of age DM 2.08-DM 2.13 (US\$0.50-0.51) per hour.

Unskilled workers performing light duties: under 18 years of age DM 1.41-DM 1.46 (US\$0.34-0.35) per hour; over 18 years of age DM 1.54-DM 1.57 (US\$0.37) per hour.

Skilled fish workers: under 20 years of age DM 2.20 (US\$0.52) per hour; over 20 years of age DM 2.33 (US\$0.56) per hour.

Mechanics: DM 432.00-DM 504.00 (US\$103-120) per month.

The above wages are based on a 45-hour week. A premium of 25 percent is paid for overtime, and up to 50 percent per seasonal workers. Deviations by shrimp canners from the wages mentioned are small. The average hourly wage rate paid by shrimp canners is about DM 2.00 (US\$0.48).

Shrimp fishermen are paid 10-20 percent of the gross proceeds of the catch. Junior fishermen receive 5-8 percent of the gross proceeds of the catch. The cost of food is deducted from these shares.

Some segments of the industry believe that the normal cycle of high and low catches is lengthening, but that eventually the shrimp catch will increase. Others claim that the decrease in the shrimp catch is due to over-fishing, and to certain land reclamation projects along the West German North Sea coast. This group does not see any prospects for substantial improvement in landings.

Shrimp exports dropped sharply in 1960 because of the low catch. The bulk of the exports go to West European countries, because of high prices and good demand. Exporters believe they can become more independent

Table 3 - Average Prices of Shrimp Exports from Western Germany, 1957-1960

Annual Average	Salted Shrimp		Canned Shrimp	
	DM/Metric Ton	US\$/Metric Ton	DM/Metric Ton	US\$/Metric Ton
1960 (Jan.-Sept.)	2,486	520	6,410	1,671
1959 . . .	1,822	434	6,200	1,476
1958 . . .	1,915	456	5,942	1,414
1957 . . .	1/4,238	1,009	5,449	1,297

1/Higher average price due to greater percentage of peeled shrimp exports.

Table 4 - Exports of Salted Shrimp from Western Germany, 1956-1960 1/2

Year	Quantity	Value	
	Metric Tons	DM1,000	US\$1,000
1960 (Jan.-Sept.)	68.0	153	36
1959	265.1	483	115
1958	343.6	658	157
1957	89.2	378	90
1956	93.4	284	68

1/Unpeeled and peeled. Exports to the Saar and Great Britain were peeled; exports to other countries were unpeeled. Bulk of exports in recent years shipped to the Netherlands and France.

from seasonal fluctuations in the shrimp catches by expanding their production of frozen shrimp. West German production of frozen shrimp in 1961 may amount to 200-300 metric tons. Export prices, f.o.b. West German sea port, for frozen shrimp in 1961 are expected to be as follows: frozen, cooked, unpeeled (about 600 heads-off shrimp per kilo or 272 count a pound), DM 2.80 per kilogram (US\$0.30 per pound); frozen shrimp, cooked, peeled (about 1,800 count heads-off per kilo or 816 count a pound), DM 9.50 per kilogram (US\$1.51 per pound).

West German exporters hope to sell frozen rather than canned shrimp to the United States, but not as long as prices for West German shrimp in West European countries continue to be as favorable. (United States Embassy, Bremen, December 20, 1960.)

Note: Values converted at rate of one Deutsche Mark equals US\$0.238.

Table 5 - Exports of Canned Shrimp from Western Germany, 1956-1960

Country of Destination	1960 (Jan.-Sept.)			1959			1958			1957			1956		
	Quantity	Value		Quantity	Value		Quantity	Value		Quantity	Value		Quantity	Value	
	Metric Tons	DM 1,000	US\$ 1,000	Metric Tons	DM 1,000	US\$ 1,000	Metric Tons	DM 1,000	US\$ 1,000	Metric Tons	DM 1,000	US\$ 1,000	Metric Tons	DM 1,000	US\$ 1,000
United States . . .	0.2	1	0.2	3.4	23	5	3.0	17	4	5.0	25	6	5.2	23	5
Belgium	2.7	25	6	28.7	201	48	17.5	123	29	2.5	14	3	-	-	-
Great Britain . . .	31.8	199	47	53.2	300	71	65.6	363	86	17.8	79	19	23.8	106	25
Netherlands . . .	52.2	411	98	104.9	635	152	173.7	1,026	245	-	-	-	-	-	-
Other	12.1	81	19	44.3	295	70	29.5	190	45	25.9	161	38	31.2	176	43
Total	99.0	717	170.2	234.5	1,454	346	289.3	1,719	409	51.2	279	66	60.2	305	73

Greece

IMPORT DUTY ON FROZEN FISH:

As of January 1, 1961, the Greek import duty on frozen fish will be 20 percent ad valorem. The duty was imposed to protect the domestic industry from foreign competition. (Alieia, December 1960.)



Guatemala

DECREE ESTABLISHES PENALTIES FOR ILLEGAL FISHING IN TERRITORIAL WATERS:

On December 13, 1960, there was published in the official gazette of Guatemala, El Guatemalteco, Congressional Decree No. 1412 dated December 6, 1960, establishing sanctions to be levied against foreign ships and aircraft which, without permission or licenses issued by the Guatemalan Government, fish in the territorial waters of Guatemala or cooperate in this activity.

Vessels and aircraft which engage in the type of activities indicated without the license or permit issued by the competent authority will be escorted to a Guatemalan port and detained, and the ship owners, captains, officers, and members of the crews will be punished as stipulated in the decree.

According to Articles 2 and 3 of the decree, the captain, or whoever is acting in that capacity, the officers and crew members, according to the circumstances, will be placed under arrest. This imprisonment will be commutable by payment of from Q1 to Q10 (US\$1-10) a day for the captain and officers and by payment of from Q0.10 to Q1 (10 cents to \$1) per day for crew members.

The ship owners will be fined from Q100 to Q5,000 (\$100-5,000), which fine must be paid prior to the release of the craft. The fine levied against the ship owners must be paid within 15 days or the craft will be sold at public auction.

The catch will be confiscated and will be immediately placed for public auction by the port captain or other person acting in that capacity.

Any other violation of the territorial waters of Guatemala committed by foreign

craft which are not exercising the right of innocent transit will be punished, without regard to the penal and civil responsibilities which arise, with a fine of from Q100 to Q10,000 (\$100-10,000), according to the seriousness of the infraction.

The penalties indicated above will be increased by one-third in each of the following cases: (1) if the craft fails to fly the flag of the country of its registration or if it lacks the documentation and registry which is required; (2) if the craft fails to obey immediately the orders or signals aimed at requiring the craft to put into port or for resistance to inspection; (3) if the craft or its crew carry firearms; and (4) if there has been repetition of infractions indicated by the decree.

The law entered into effect on January 13, 1961. (United States Embassy, Guatemala, December 14, 1960.)

* * * * *

GOVERNMENT GRANTS CONTRACT FOR FISHING IN TERRITORIAL WATERS:

A license to fish in Guatemalan territorial waters has been granted to a Cuban lawyer who is at present in Guatemala, according to the February 4, 1961, official Guatemalan gazette, El Guatemalteco. The license involves a contract between the licensee and the Guatemalan Under Secretary of Agriculture.

The license extended to the Cuban by the contract gives him the right to engage in fishing in general on a commercial scale off both the Pacific and Atlantic coasts within the twelve mile limit of territorial waters claimed by Guatemala. The license is for ten years and cannot be transferred, even in part or entirely to other persons.

According to the contract, any of the large fishing craft which might be purchased by the Cuban for fishing off the Guatemalan coast must be registered in Guatemala; however, the craft which might be leased by the Cuban for use in his fishing operations can, according to the contract, maintain the registration of the craft's country of origin. He will be permitted to use foreign specialized technical personnel as necessary.

The contract authorizes him to operate either in his own name or in the name of a company which might be organized. The com-

Guatemala (Contd.):

pany will be permitted to import boats, industrial fishing equipment, machinery, materials, fuels, and lubricants for its operations, in accordance with the exemptions prescribed in the Industrial Development Law. The Cuban will be permitted to lease land on the sea coast where he can install the necessary facilities to carry on his fishing operations, such as freezing and refrigeration plants, warehouses, and similar installations. (United States Embassy, Guatemala, February 8, 1961.)



Hong Kong

SHRIMP INDUSTRY:

The Hong Kong shrimp-fishing industry is one of the many minor, but potentially expandable, economic pursuits that are carried on in the Colony. Within the fishing community the fishery for shrimp accounts for about ten percent of the total fishing fleet. The processing of shrimp by the Hong Kong fishing industry is not significant at present, because world market prices are not sufficiently high to make the Colony's products competitive overseas. Most of the catch is consumed locally, in the natural state. A large quantity of shrimp were processed during 1958 and the first half of 1959, when large exports of frozen shrimp were made to the United States. However, the local "processing" amounted largely to the repackaging of shrimp that had already been processed (including freezing) within Communist China. The Hong Kong fish-processing industry could be greatly expanded if the market situation changed; for there are several seafood canning and cold-storage plants, as well as the necessary capital, which could be quickly utilized for the processing of shrimp.

The main fishing grounds for Hong Kong's shrimp vessels lie to the south of the Colony, on either side of the Lema chain of islands, held by the Chinese Communists. Here the larger and motorized shrimp vessels will range as far as 40 miles from the Colony into waters up to 25 fathoms. But there is also considerable inshore shrimp fishing done within Colony waters and in the mouth of the Pearl River.

The main shrimp season usually runs from April through October, although in some

years it may begin in March. There is a slack season from November through March during which "white shrimp" are largely caught.

There are no plants in Hong Kong devoted exclusively to the processing of shrimp. There are at least five cold-storage plants which have the facilities for the quick-freezing of food products. At the height of the illegal shipments to the United States two years ago, there were about 10 companies processing shrimp for export. Now, there are reported to be only two such firms. The processing companies are of three types. The processor might own his own quick-freezing plant and employ workers at this plant to process the shrimp as well as other foods. The processor might lease space within a quick-freezing plant so that his employees would have a convenient place to perform their processing operations. Or, the processor might merely buy the shrimp on the local wholesale market, deliver them to a quick-freezing plant for processing by workers employed by the plant, and then take delivery of the frozen shrimp for export.

There are at present no machines installed in any Hong Kong quick-freezing plant to handle any shrimp-processing operation. One plant, however, did import peeling and deveining machines from the United States two years ago; but the imposition of the United States ban on imports of shrimp from Hong Kong after June 17, 1959, dissuaded this company from actually installing the machines. The latter are still presumed to be stored within the Colony and would probably be placed in operation, if the volume of shrimp exports ever justified it in the future. Under the same assumption, other quick-freezing plants here would probably also import shrimp-processing machines.

There are also local food-processing plants which sun-dry shrimp, make them into a shrimp paste, or incorporate them into a flour used for making noodles and chips. There are not known to be any shrimp-canning plants in the Colony.

There are no accurate statistics kept of shrimp catches. From the experience gained by the Colony's fish marketing officials, however, estimates of catches (heads-on) in recent years were: 1956, 5,200 short tons; 1957, 5,600 tons; 1958, 6,300 tons; 1959, 7,000 tons; and 1960, 6,700 tons.

It is estimated that 60 percent of the Hong Kong shrimp landings consists of the species

Hong Kong (Contd.):

Metapeneus monoceros, known in Cantonese as "commercial shrimp." This is a medium shrimp, yielding from 31 to 60 heads-off shrimp per pound. Species known only by their Cantonese common names as "red shrimp" and "red rice shrimp" account for about 30 percent of the catch; these species will yield 61 heads-off shrimp per pound. Species known only by their Cantonese common names as "flower shrimp" and "white shrimp" make up the remaining 10 percent of Hong Kong's shrimp landings--these species are large shrimp which will yield 30 or less heads-off shrimp per pound. The Hong Kong officials list the following species as being caught by Colony shrimp vessels: Metapeneus monoceros, Metapeneus affinis, Penaeus monodon, Penaeus bululus, Penaeus penicillatus, Solenocera sp., Metapenaeopsis novae guineae, Metapenaeopsis barbatus, Parapenaeopsis hardwickii, Parapenaeopsis hungerfordii, and Parapenaeopsis cornutus. These officials have been unable so far, however, to match these scientific names with the common Cantonese names, except for Metapeneus monoceros.

The 1960 landings declined, largely because of the destruction wrought by Typhoon Mary upon the Colony's fishing fleet in June and by the strong winds that prevailed in August and September, keeping vessels confined to the harbor. The statistics on shrimp catches do not represent estimates of the amounts of shrimp landed at Hong Kong, because since mid-1958 local shrimp vessels have been required to land part of their catches at Chinese Communist ports in the Pearl River in return for the privilege of using their traditional shrimping grounds, which lie outside of the Hong Kong waters. Thus, the amount of shrimp actually landed by Colony shrimp vessels at Hong Kong in the years 1958, 1959, and 1960 would be somewhat less than the catch figures shown.

At the end of 1960 there were 1,130 vessels known to the Hong Kong Government to be engaged in shrimp fishing. All are South China-style junks. Almost two thirds of these (740) are sailing vessels; the balance (390) are motorized. The size of the craft ranges from 24 feet to 52 feet in length, with the average boat about 39 feet. Those vessels that are motorized have engines varying between 6 and 72 hp., with the average about 40 hp. Beam trawls are mostly used, and

each craft tows from 7 to 9 trawls with 10-foot spreads. Some boats engage in pair-trawling in inshore waters.

There is no government-sponsored construction program to augment the Colony's shrimp-fishing fleet. Private plans are unknown, but would certainly appear if a sizable export market for shrimp were to develop.

All shrimp vessels operating from Hong Kong are owned by Chinese residents in the Colony. Such persons do not include Chinese with American citizenship. Most vessels are owned and operated by a single family group. However, there are also fleets owned by a single person or company who employs crew. One fleet is known to consist of ten vessels.

Data showing trends in export prices for shrimp actually caught by Hong Kong vessels is unavailable. One processor now exports under its own brand name quick-frozen local shrimp of the small variety (red shrimp and red rice shrimp) to Australia at 29 U. S. cents an 8-oz. package, c.i.f., heads-off, peeled and deveined. About ten tons a month of these "cocktail shrimp" are being shipped to Australia at present. The same processor exports the same size quick-frozen shrimp to the United Kingdom at from 63 to 70 U. S. cents a pound, c.i.f. heads-off, peeled and deveined.

Another processor exported these same small shrimp, cooked whole (heads-on) and then quick-frozen, to France in December

Type and Destination	Quantity		Value ²	
	Jan.-Oct. 1960	Year 1959	Jan.-Oct. 1960	Year 1959
	. (1,000 Lbs.) .		. (US\$1,000) .	
Fresh, chilled, and frozen:				
United States	-	514	-	36
Canada	188	118	88	51
Japan	67	-	29	-
South Africa	23	16	11	-
Australia	21	17	8	-
Other	31	163	15	103
Total	1/330	828	151	533
Salted, dried, and smoked:				
Philippines	22	-	2	-
Peru	22	15	6	-
Jamaica	15	12	9	-
Panama	14	11	8	-
Other	46	47	30	31
Total	119	85	55	50

1/Figures for January-October 1960 are exclusive of about 2 million pounds of re-exports of shrimp received from Communist China.

2/F.o.b. Hong Kong.

Note: Values converted at rates of: 1959, HK 5.76 = US\$1; 1960, HK 5.73 = US\$1.

Hong Kong (Contd.):

1960 at US\$1.02 a kilo f.o.b. Hong Kong or about 46 U. S. cents a pound. This processor stated that this price was now too high and he did not expect more business to develop.

There are no taxes on the export of shrimp, nor does the Hong Kong Government offer subsidies to persons and companies engaged in the shrimp industry. There was a certification procedure established by the Government to attest to the Hong Kong origin of shrimp destined for the United States, but this was suspended on June 17, 1959. Attempts are being made now to re-establish a new and tighter certification procedure that would prevent the abuses of the past.

Wages in the relatively dormant shrimp processing business are paid both on a daily and a monthly basis. A processor who hires his own labor but leases working space in a cold-storage plant states that he pays his washers, headers, peelers, deveiners, and weighers between HK\$6-7 (US\$1.05-1.23) for an 8-hour shift. (The cold storage plant manager thinks he only pays between HK\$5-6 (US\$0.88-1.05). Packers are believed to get slightly more because they must ensure that the shrimp are packed to the buyer's specifications. This same processor then pays the cold-storage plant an additional HK\$0.20 (3.5 U. S. cents) a pound for the quick-freezing service.

One cold-storage plant processes and packs Hong Kong shrimp under its own brand name. It has a permanent work force, which is employed at processing and quick-freezing other food products besides shrimp. This labor force is paid on a monthly basis, with wages ranging between HK\$200 and HK\$450 (US\$35.10-78.95); the average wage is HK\$250 (US\$43.85). In addition, the workers get many fringe benefits: free quarters, free medical service for themselves and their dependents, sick pay, 18 days' vacation per year, their uniforms, and a company contribution to a pension fund amounting to one-tenth of their wages. A supervisor earns about HK\$1,000 (US\$175.45) a month.

The vast majority of shrimp fishermen own and operate their own vessels. The income which they receive is controlled in most cases by the seafood wholesalers to whom they turn over their catch as payment against the debts they have incurred. No data are available on the prices paid by the wholesalers to the fishermen for the catches;

it is very likely that these values vary with the prices paid at the Government's marketing station and with the financial and personal relationships between each fisherman and his wholesaler source of credit. At the Government's wholesale fish market, fishermen received between HK\$152.39 and HK\$190.18 a picul (19 and 23.5 U. S. cents a pound) for their shrimp in the last seven months of 1957, when the Government first accepted shellfish for sale at its Aberdeen market; between HK\$118.28 and HK\$277.06 per picul (15-35.5 U. S. cents a pound) in 1958; and between HK\$183.46 and HK\$306.72 per picul (24.0-40.0 U. S. cents a pound) in the first six months of 1959.

The processor who owns a fleet of 10 vessels states that he pays an average of HK\$100 (US\$17.55) a month to the ordinary seaman and worker on his shrimp vessels. In addition, he pays for their food and gives the crew an incentive bonus amounting to 30 percent of the value of each catch marketed. The master of the boat gets about HK\$150 (US\$26.30) a month, plus his food and share of the bonus.

Without a profitable export market, there is little prospect for a significant expansion of Hong Kong's shrimp landings. Export data indicate that the Colony's exporters of shrimp have been successful in finding new markets for their products. The important United States market, however, will not reopen until a new certification procedure has been approved. Even then, the high price of Hong Kong shrimp may keep shipments well below the record levels of 1958 and 1959. (United States Consulate in Hong Kong, January 18, 1961.)



Iceland

FISHERIES LANDINGS DECLINE IN 1960:

During the first five months of 1960, Iceland's fishery landings indicated a year which would rival 1959. But during the last half of the year fishing was less successful in spite of more vessels in operation than in 1959 and in spite of considerable new equipment. Production of salted herring in 1960 may be only about half that of 1959, while herring oil and meal may amount to no more than two-thirds of the 1959 production. This sharp decrease in production means a loss in revenues, compared to 1959, of about 120 million kronur

Iceland (Contd.):

(about US\$3.2 million) calculated at 1960 prices.

More serious is the decline in world prices for herring oil and meal, as a result of Peruvian competition. Fish meal prices in 1960 were down 45 percent and oil prices were down 20 percent from 1959. In 1960, the probable decrease in value due to price declines when compared with 1959 will be about 175 million kronur (US\$4.6 million). The total loss in prospective revenues resulting from the decreased catch and the fall in prices will be nearly 300 million kronur (US\$7.8 million), according to Iceland's statisticians. This represents 12 percent of all export revenues. Some of this will be made up as a result of expanded markets for other products, but even this recouping will involve dislocations within the industry.

Iceland's fishing industry in 1959 reported record high landings--564,400 metric tons as compared with 505,000 tons in 1958 and an annual average of 441,100 tons for 1953-1959.

In processing the catch, the trend in 1959 was somewhat in the direction of stockfish and salted fish which are sold mainly for convertible currencies, and away from frozen fish intended for the Soviet Bloc. This trend would have a correspondingly favorable effect on Iceland's foreign exchange position with the hard currency countries. The trend, however, does not indicate the beginning of any fundamental shift in Iceland's trade.

It now appears to the Government that the fishing industry cannot return a profit without a thoroughgoing reorganization and rationalization of both its financial and operating aspects. This will require capital, the need for which had not been foreseen when the stabilization program was being planned. It will also require the transformation of present loans to the industry from short- to long-term loans. Financing will have to come almost entirely through the banking system as the industry has not built up any significant reserves to be used as working capital.

It is noteworthy that while the 1960 summer herring catch by Icelandic fishermen fell off sharply, the catch by Norwegian fishermen in the vicinity of Icelandic waters actually increased over 1959.

The fishing industry is by far the largest industry in Iceland, although the value of the catch amounts annually to only about one-fourth of the Gross National Product. Agricultural production comes next in size, with an annual value about one-half that of the fisheries. The fishing industry, however, accounts for about 92 percent of the value of tangible exports, with agriculture accounting for most of the remainder. (United States Embassy, Reykjavik, December 8, 1960.)

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FISHING INDUSTRY PARALYZED BY LABOR DISPUTE:

The paralysis caused by the general strike in Iceland's Westman Islands failed to improve early in February 1960 as a result of good fishing weather or from a settlement of the dispute of the fishing vessel owners with the processors over the price and grading of fish. The end of the "lock-out" found the two shore unions determined to continue their strike. The fishermen and engineers continued their sympathy walk-out.

The fishermen's unions conducted negotiations with the Union of Icelandic Fishing Vessel Owners from mid-December until January 24 seeking to establish the wages and catch share of seamen for the winter-spring fishing season in Iceland's motorboat fleet. A deadlock in the bargaining led to intervention by the State Labor Mediator. Most unions walked out on January 15.

A settlement was reached January 24 on terms which approximated those in effect previously, but was rejected by several important unions.

The threatened walkout of the seamen's unions began January 15. A total of 38 local unions joined in the walkout, effectively stopping all motorboat fishing operations except for two unions on the Reykjanes peninsula, Keflavik, and Grindavik.

The various fringe benefits had been settled early in the talks, and the core of the dispute consisted of the guaranteed monthly minimum wage, and the percentage of the catch to comprise the fishermen's share.

The minimum monthly wage was settled on January 24 at 5,365 kronur (US\$141.10) for deckhands; 6,706 (\$176.38) for netmen, second engineers, and cooks; and 8,047

Iceland (Contd.):

(\$211.64) for first engineers. The fishermen's share was fixed at 29.5 percent of the gross value of the catch divided among: 11 crew members for short-haul line fishing; 10 crew members on Westman Islands boats; 13 crew members on long-haul line fishing; 10 crew members on boats of 30-39 tons engaged in short-haul net fishing; 11 crew members on boats above 40 tons engaged in short-haul net fishing; 12 crew members on motorboats engaged in long-haul net fishing.

Where the crews exceed the above numbers, the fishermen's share rises 2 percent for each additional member. On the smaller boats the crew receives 40 percent of the catch on boats of 12-18 tons, and 34 percent on boats of 18-30 tons. The crew share on trawling operations by the motorboats will be 31.5 percent and 37 percent in drag-net and lobster fishing.

The terms of the agreement, although difficult to compare with previous years, will in general bring the motorboat seamen about the same income as before. In the case of the Westfjords union, the new scale would amount to a slight decrease, while the Westman Islands fishermen will obtain a slight increase.

The new agreement was voted down by several important unions: Reykjavik, Hafnarfjordur, Akranes (unions in these three localities man 260 out of 340 motorboats over 30 tons in Iceland), Eskifjordur, and a number of smaller unions in the East and Westfjords. In general the continuing dissatisfaction applied more to the method of grading the fish than the catch percentage. The fishing vessel owners and the freezing and processing plants, in an effort to introduce quality controls, had reached agreement to base the price on the means used to catch the fish rather than on actual inspection.

The January 24 agreement was accepted by fishermen's unions in the Westman Islands, the villages on the Snaefellsnes and Reykjanes peninsulas, and a number of others. The Westfjords Federation of Labor reached tentative agreement with the owners on a local basis and commenced fishing January 29. Negotiations continue, however, with respect to a final contract. The seamen's unions are using the terms of the national agreement as a basis but are seeking a catch share of 33 percent. On February 19 agreements on fishermen's shares or wages were

reached at Reykjavik, Hafnarfjordur, and Akranes and this left only the Westman Islands with work stoppages still holding up production.

As of February 19 production was still at a standstill in the Westman Islands where the seamen's union was supporting the walkout of the shore unions. No indication of a settlement was in sight by mid-February, and the losses were mounting. The peak of the fishing season was approaching, and the cod and haddock landed by the Westman Islanders are one of Iceland's principal sources of foreign exchange. Production of frozen processed fish in the Westman Islands amounted to about 17 million kronur (\$447,000) between January 1-February 15, 1960. The winter fishing season has so far brought in good catches in areas not affected by the walkouts. (United States Embassy, Reykjavik, February 9 and 20, 1961.)

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HERRING FISHERY TRENDS, JANUARY 1961:

Early in January this year the Icelandic winter herring fishing season was turning out quite favorably in regard to landings, and the quality and prices of the frozen, salted, and iced products. The fishing industry was filling contracts from the 1960 summer fishing season which had gone unfilled due to a poor season. Poland ordered another 20,000 barrels of salt herring and a large fleet of vessels began fishing against the wishes of the fishermen's union which had asked that the vessels tie-up for increased wages.

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COD AND HADDOCK EX-VESSEL PRICES FOR 1961 BASED ON QUALITY:

The Association of Fishing Vessel Owners and Fish Processors agreed in January on prices to be paid for landed fish in 1961. These prices will for the first time be the same for the country as a whole.

Prodded by the Government, the fishing industry this year took a step towards introducing better quality control of their products by basing prices on the freshness of the fish. Heretofore the fishermen have been more concerned with quantity than quality, leaving the fish too long in the drift nets, and the consequent deterioration meant that the product was often unfit for the Western market.

Iceland (Contd.):

The tentative prices established for gutted cod and haddock with head on are: line-caught fish landed daily, 2.93 kronur per kilo (3.5 U. S. cents a pound); line-caught fish iced not over 4 days old, 2.80 kronur per kilo (3.4 cents a pound); best quality netted fish landed daily, and good quality trawler and line-caught fish iced not over 7 days old, 2.55 kronur per kilo (3.1 cents a pound); netted fish not more than two nights in the net, and iced fish over 7 days old, 2.22 kronur per kilo (2.6 cents a pound); other fish for human consumption, 1.66 kronur per kilo (2.0 cents a pound).

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GOVERNMENT AID TO VESSEL OWNERS:

To provide the fishing vessel owners with some measure of relief, and to allow them additional flexibility in meeting the demands of the seamen, the Government in January 1961 took three steps: (1) the remaining amount in the Export Fund was devoted to payment of insurance premiums on the vessels, (2) interest rates on loans were decreased from 11 percent to 9 percent, and (3) on January 5, 1961, the Icelandic President signed a provisional decree authorizing the Fisheries Mortgage Fund to issue new type loans for the benefit of the fishing industry. The decree will permit extension of short-term loans and defaulted debts for capital equipment of the fishing industry, including machinery, real estate, and vessels into 10, 15, or 20-year loans. Prior to this the Government had abolished the 2.5 percent tax on fish products produced in 1961.

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FISHING INDUSTRY SURVEY:

An extensive survey of vessels, processing plants, and machinery used in the fishing industry is under way in order to try to stabilize the rather chaotic finances of the industry. All bankruptcy proceedings are canceled pending the completion of the survey, but not beyond December 31, 1961. (United States Embassy in Reykjavik, January 12 and 16, 1961.)



Italy

INTERNATIONAL FISHING FAIR:

The XXI International Fishing Fair and the VII International Nautical Exposition will be held concurrently at Ancona, Italy, June 24-July 9, 1961. The Fair and the Exposition will have exhibits from many countries and will be attended by persons interested in fisheries and nautical subjects in general.

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TUNA TRAP FISHERY POOR IN 1960:

Results of Italy's 1960 tuna fishing season were extremely poor. Catches by the Favignara, Isola Piana, and Porto Scuso tuna traps were only fair. All the other tuna traps caught only insignificant quantities.

The reason for the decline in catch is not known. Some attribute it to the fact that "blue-fish" schools (sardines and anchovies) remained offshore, and that consequently the tuna passed far from the tuna traps.

The results of the tuna-fishing season trap by trap were (in metric tons): Favignara 1,635; S. Cusumano 73; Bonagia 71; Secco 28; Scopello 82; Castellamare 64; Magazzinazzi 30; Solanto 51; Mondello (was not set up); Trabia 9; S. Giorgio 35; Oliveri 15; Tono 4; Isola Piana 1,450; Porto Scuso 1,600; Porto Paglia 900. (Il Giornale Della Pesca, July 1960.)



Jamaica

SHRIMP FISHERY SMALL AND UNORGANIZED:

The shrimp industry of Jamaica exists only to the extent that it is conducted by about 20 unorganized individuals. These fishermen catch shrimp throughout the year, but peak catches are made during April and May. The "industry" is primitive; there are no processing plants and none are contemplated. No data are available on the total annual landings of shrimp. The Jamaica Fisheries Officer states that the annual catch is "very small."

Of the approximate 900 dug-out canoes (some powered by outboard motors, some by sail, and some by paddles) which are engaged in fishing, not more than 20 are used in fishing for shrimp. These 20 (at the most) only seek shrimp during a relatively small por-

Jamaica (Contd.):

tion of their time. Shrimp are caught by cast nets from canoes, or by wading in shallow waters with hand nets and loading the catches into canoes.

The 20 shrimp fishermen, individually dispose of their shrimp to Jamaican consumers. There are no data on the income of Jamaican fishermen as a whole, or the income derived solely from shrimp sales by the 20 fishermen who fish for shrimp only as a part-time activity. No shrimp are exported from Jamaica.

Shrimp are caught in that portion of Kingston's harbor as lies westwardly from Kingston. The Fisheries Officer does not believe that this catch can be expanded; but he also stated that no one knows what potentialities may exist throughout Jamaica's entire coastline. In 1958 or 1959 there were attempts made by Jamaica-based fishermen to utilize the Central-American areas of the Caribbean coast, resulting in landings of about 20,000 pounds per month, which were shipped to the United States. Although this fishery was discontinued, there may be some prospect that this trade may be recommenced in the future. (United States Consulate, Kingston, March 2, 1961.)



Japan

ATLANTIC TUNA FISHERY TRENDS:

A Japanese exporting firm planned to deliver a total of 500 metric tons of frozen tuna to Yugoslavia by the end of January 1961. The shipment was to be picked up at Dakar, West Africa, by the Astru Maru, which was recently turned over to Yugoslavia. The sales price was \$290 a ton c.i.f. for albacore and \$280 a ton c.i.f. for yellowfin.

The European frozen tuna market for Atlantic Ocean tuna continued to hold firm. Albacore was selling for \$290 a ton in Yugoslavia. Yellowfin was selling for over \$280 a ton in Italy and Yugoslavia.

The higher prices are attributed to increased demand and longer vessel trips due to fishing grounds being located farther offshore. These prices were expected to prevail until about March 1961.

A large Japanese fishing company is planning to transship to Japan via Freetown, South Africa, about 300 tons of black marlin, broadbill swordfish, etc., in late February on an experimental basis. Plans call for utilizing commercial line vessels as carriers. Should this plan prove successful, other fishing companies are expected to follow suit.

The Japanese firm is making this move since the plan approved by the Japanese Export Frozen Tuna Fisheries Association to transship to Japan 10,000 tons of Atlantic-caught frozen tuna-like fish between April and July is not making much progress for the European tuna market has not only improved, but carrier space for shipping tuna to Japan is difficult to obtain as well.

The Japanese Export Frozen Tuna Fisheries Association had scheduled a special session on February 1 to approve officially the redesignation of the Nigerian port of Lagos as an intermediate port for transshipping Atlantic tuna to the United States. It is reported that several large Japanese fishing companies are conducting negotiations to have the Liberian port of Monrovia designated as an intermediate port also. (Shin Suisan Shimbun So-kuho, January 17, 21, 27, 1961.)

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CANNED TUNA MARKET
PROSPECTS IN UNITED STATES:

The Japan Export Trade Promotion Agency (JETRO) early this year released a report concerning canned tuna market conditions in the United States. According to JETRO, to increase sales of Japanese canned tuna in brine Japan should first conduct promotional campaigns in selected areas, improve the quality of her products, as well as plan price increases.

The United States market can be divided into four major regions: (1) Northeast, (2) New York, (3) North Central, and (4) Pacific Coast. Northeast leads in total sales of canned tuna, garnering 25 percent of the market, followed by North Central with 23 percent. However, the Pacific Coast leads in the per capita consumption of canned tuna.

In the Pacific Coast region, chunk-style packs make up the largest proportion of all canned tuna found on the market. As for solid-style packs, name United States brands make up an overwhelming part of that market.

Japan (Contd.):

Outlook for increased sales in that region does not appear bright. Japanese products face a disadvantage from a transportation standpoint in competing with United States canned tuna on the Pacific Coast. For these reasons, effective promotional results in that area are doubtful.

However, prospects for increased sales in the North Central region look good. With improved living standards, consumption of tuna has shown an increase. This, plus the fact that the region is densely populated, makes it an ideal place for conducting an effective promotional campaign. The market for solid-style packs in that region is already controlled by name brands and efforts should be directed toward the sale of chunk-style tuna. However, care should be taken not to saturate the market with too many brands. (Nippon Suisan Shimbun, February 6, 1961.)

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CHANGES IN 1961 TUNA MOTHERSHIP REGULATIONS REQUESTED:

On January 2, 1961, the Tuna Mothership Council composed of the leading three Japanese fishery firms submitted a petition to the Ministry of Agriculture and Forestry requesting changes in 1961 tuna mothership regulations. The petition recommended the following changes: (1) increase present catch quota of 13,600 metric tons to 40,000 tons, (2) eliminate area restrictions, (3) relax catcher-boat size restrictions, and (4) restore use of portable catcher boats.

Although not expecting full acceptance of its recommendations, the Tuna Mothership Council hopes to have at least some part of its proposals accepted. However, the Japanese periodical Suisan Tsushin (February 6, 1961) reports that according to a responsible Fishery Agency official, there will be no major changes in existing tuna mothership regulations and that only the regulation pertaining to size restriction of tuna fishing vessels shall be revised.

Present size restriction on tuna vessels allows only catcher vessels of 200-gross tons or less to engage in mothership-type operations. The Government decree made public late last year concerning the relaxation of rules on enlargement of medium-size fishing vessels to larger-size vessels

has led to a flurry of conversions, from medium to large vessels. As a result, tuna mothership fleets are faced with the problem of catcher vessel availability. The Tuna Mothership Council hopes to have this restriction lifted so larger catcher vessels can be employed.

At present, five motherships with a total of approximately 150 catcher vessels are engaged in tuna fishing. The present tuna mothership catch quota of 13,600 tons when split five ways is only 2,720 tons per fleet, which makes it impossible for a fleet to operate profitably. The mothership companies have continued operations by augmenting their quota by an additional 9,300 tons acquired through an agreement to lay up their fishing vessels (from participating in the coastal tuna fishery) for corresponding periods during the remainder of the year.

Although tuna landed by tuna vessels in other categories have continued to increase (for example, from 160,000 tons in 1954 to 380,000 tons in 1959, with further increases in 1960), tuna mothership landings have been restricted despite increases in the number of mothership vessels participating in the tuna fishery.

Area restrictions also are hampering mothership operations, for this has prevented motherships from utilizing to their full capacity their unique characteristic of mobility. At present, the mothership fleets are restricted to the following areas: North of the equator - east of 170° W. longitude; equator to 25° S. latitude - east of 170° E. longitude; and south of 25° S. latitude - east of 160° E. longitude.

Concerning the utilization of portable catcher vessels, precedent for this practice had already been set in earlier years (1951 and 1953) and industry hopes to have their use revived again. (Suisan Keizai Shimbun, February 4, 1961; Suisan Tsushin, February 6, 1961.)

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EXPORTERS DRAFT PROPOSALS ON CANNED TUNA EXPORTS TO U. S.:

The Japan Canned Food Exporters Association's standing committee on tuna recently met to discuss policies on sales of canned tuna in brine to the United States. The following resolutions, which are to be used as basis for negotiations with producers, were adopted:

Japan (Contd.):

1. Sales quota for January to March 1961 shall be 600,000 cases, April to June 900,000 cases, and July to September 500,000 cases.

2. Present sales prices should be maintained as much as possible.

3. In addition to the producers' share of the export quota (50 percent of total exports), about 20 percent of the quota allotted to each exporting firm shall be submitted for readjustment. (Nippon Suisan Shimbun, January 7, 1961.)

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EXPORTERS DRAFT PLAN FOR REGULATED EXPORTS OF FROZEN TUNA TO U. S.:

The Japan Frozen Foods Exporters Association recently drafted a plan regulating frozen tuna exports to the United States. According to this plan, total exports of all frozen tuna, including albacore, yellowfin, skipjack, bluefin, etc., to the United States are fixed at 100,000 short tons, with direct exports from Japan proper limited to 65,000 tons and transshipments 35,000 tons.

The 65,000-ton quota for direct shipments from Japan is to be allotted to companies on the basis of their records for the preceding three years. Each of these companies is to release half its quota to the Frozen Foods Exporters Association, which shall then distribute this half, as requests are received, to firms that have completely used up their quotas on hand. In the case of transshipments, the 35,000 tons shall also be distributed to companies on the basis of their records for the preceding three years but this entire quota shall initially be placed in the custody of the Association. The Association shall then release this quota to these companies as requests are received from them. (Suisan Tsushin, February 22, 1961.)

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EXPORTS OF FROZEN ALBACORE TO U. S. MAY INCREASE:

The Japanese Export Frozen Tuna Fisheries Association's board of directors met on January 19, 1961, to study the Association's proposal, which was adopted on January 12, to increase the present frozen albacore tuna export quota of 30,000 short tons to the United States. The board ap-

proved an increase of 5,000 tons and this increase was to be submitted for formal approval at a special general session to be held on February 1. (Nippon Suisan Shimbun, January 23, 1961.)

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FROZEN TUNA EXPORTS TO U. S. S. R. BEING EXPLORED:

The president of a Japanese fishery firm met with the Russian Fisheries Minister on January 26-27, 1961, to discuss the possibility of exporting frozen tuna to the Soviet Union. For the purpose of exploring this matter more fully, the Russian Minister has agreed to hold an informal conference at the Soviet Embassy in Tokyo at some later date.

The idea of exporting frozen tuna to the Soviet Union has gained considerable support lately in Japan. Hope is held for industry-wide participation in the plan to export tuna to the Soviet Union, which would help alleviate the glut in the Atlantic tuna market occurring during the summer months.

However, little is known about the import structure within the Soviet Union and an organization to handle exports to the Soviet Union does not exist within Japan. For these reasons, the Japanese tuna industry has not yet been able to get together on this plan.

Opinions are being expressed that industry would have a difficult time to go it alone and that the Japanese Government should take an active role in promoting this idea. (Suisan Keizai Shimbun, February 2, 1961.)

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NATIONAL TUNA RESEARCH COUNCIL PLANNED:

Preparations have been under way in Japan for some time to organize an association called "National Tuna Research Council" (provisional name) and the first meeting of this group was scheduled for March 1, 1961, at which time the draft pertaining to the formation of this association is to be adopted. This meeting is sponsored by the Japanese Fishery Agency, Japan Fisheries Society, and the Tuna Federation and shall be attended by representatives from leading tuna-producing prefectures and from tuna research organizations.

The association's objective is to strengthen bonds between existing tuna organizations

Japan (Contd.):

through Government and industry cooperation, and to promote tuna research and improve tuna-processing methods. Their program calls for:

1. Holding technical meetings to discuss matters such as improving efficiency of fishing operations and fishing gear, developing better baits, improving quality of tuna products, and developing new products.

2. Holding an annual meeting for the purpose of exchanging views of members and interested parties on tuna problems, and reporting on progress of research undertakings.

3. Scheduling meetings every other month of regular members (composed of people from Government and private research organizations and educational institutions) and associate members (tuna industry personnel) to compile, compare, and exchange data on research in progress.

Special committees such as on research, production methods, and fishing techniques are to be established.

Plans call for holding the first annual meeting of the "National Tuna Research Council" in November 1961 for a two-day period. (Suisan Tsushin, February 22, 1961.)

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NEW CANNED TUNA PRODUCTS DEVELOPED:

A large Japanese fish canner announced late in January 1961 that it has added two new canned tuna products to the items they now offer. The firm expects to sell the new products in large cities. One of the new products is "creamed tuna," which contains tuna meat, green peas, potatoes, and carrots in white sauce. The other kind contains pickled tuna meat, green pepper, cauliflower, cucumber seasoned with tomato sauce, and salad oil. (Fisheries Economic News, January 30, 1961.)

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PACKERS TO TRANSSHIP FROZEN ATLANTIC TUNA TO JAPAN:

The Export Frozen Tuna Packers Association's board of directors met on February 24 to discuss transshipment of frozen Atlantic tuna to Japan and adopted the following proposals:

1. About 1,000 metric tons of Atlantic tuna shall be procured through the joint sales company and transshipped to Japan.

2. Price shall be \$190 per metric ton for yellowfin and \$250 per ton for swordfish, with delivery at Monrovia, Liberia.

3. A large Japanese fishing company shall arrange for the transportation of 690 tons to Japan and will purchase the entire amount upon delivery. The remaining tonnage (about 310 tons) shall be allotted to any member company in the association who wants to transship tuna to Japan but the company must bear all expenses. (Suisan Tsushin, February 25, 1961.)

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RESEARCH VESSEL REPORTS GOOD TUNA FISHING OFF ANGOLA:

The Japanese Fishery Agency's research vessel Shoyo Maru (which returned to Tokyo on February 12 after spending a month exploring fishing grounds off west and northwest Africa) reported good fishing off Angola in the area to the north of 10° S. latitude, 5° E. longitude.

From October 21 to November 9, 1960, the Shoyo Maru operated in the area formed by lines connecting the following positions: 10° S., 5° E.; 10° S., 5° W., and 10° N., 20° W. Within the confines of this area between 10° S. latitude and 5° S. latitude (off Angola), albacore predominated in the catches, averaging 6.7 fish per 100 hooks, followed by big-eyed and yellowfin in abundance; between 5° S. and the equator yellowfin averaged 4.7 fish per hundred hooks; and between the equator and 10° N. latitude, 3.4 fish per hundred hooks.

From November 19 to December 8, the Shoyo Maru operated near the Cape Verde Islands in the rectangular area formed by the following positions: 15° N., 20° W.; 15° N., 40° W.; 25° N., 20° W.; and 25° N., 40° W. Dividing this area into three general groups, north, south, and west, the Shoyo Maru reported catches of 1.8 fish, 3.7 fish, and 3.0 fish per 100 hooks in each of those respective areas. At least for the period indicated, fishing was poor near 25° N. latitude. (Shin Suisan Shimbun Sokuho, February 22, 1961.)

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THIRD SALE OF CANNED TUNA IN BRINE FOR EXPORT TO U. S.:

The Tokyo Canned Tuna Sales Company held the third sale of canned tuna in brine (150,000 cases) for the United States market beginning February 25. As before, whitemeat

Japan (Contd.):

was priced at US\$9.15 a case and lightmeat at \$6.80 a case f.o.b. (Suisan Keizai Shimbun, February 25, 1961.)

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TUNA FISHING INDUSTRY FACES PROBLEMS:

The Japanese pelagic tuna-fishing industry will have to face a number of problems in 1961. Since mid-1960, albacore tuna have been caught in the Atlantic and development of a market for these fish will be a problem for the industry this year. Also, mothership-type tuna fishing has reached the stage where a new operating policy to make operations profitable is needed, and new procedures are needed for transshipped tuna exports. A Japanese article states that unless the tuna industry deals with these problems with new concepts in mind, frozen tuna exports will not expand further.

Japanese tuna vessels operated in the Atlantic for the first time and exported their catch to Italy in the spring of 1957. Four years later, more than 60 vessels were fishing there and in 1960 albacore began to be caught with yellowfin. About 5,000 metric tons of Atlantic albacore were exported in 1960. Albacore was caught with yellowfin off the coast of Brazil, around 10° S. latitude off Recife.

The problems of Atlantic tuna in the past three years were concerned with the sudden increase in vessels, increased yellowfin tuna exports to Italy, and development of new markets. Inasmuch as yellowfin had been considered to be the mainstay of exports from the Atlantic, how to sell Atlantic albacore to the European market became a problem.

Exports of Atlantic albacore were offered at around \$250 per ton f.o.b., exactly the same price as yellowfin for export to Europe, but \$300 per ton was the price for export to the United States. As far as exports to Europe were concerned, they were not particularly attractive. Accordingly, 1961 problems will include raising the price on albacore for European markets, development of markets, and expansion of exports to the United States. The industry feels that development of new markets for albacore is important, as well as markets for yellowfin tuna.

Japan's mothership-type tuna fishing fleets operating in the South Pacific in 1960

numbered five. In the era after World War II when the Japanese fishing vessels could not go beyond the "MacArthur Line," mothership-type tuna fishing came into being. At present 40-50 catchers are attached to one mothership and the mothership buys the tuna caught from the catchers. Of late, the fishing area is restricted to some specified areas because of the limited route supply and for the past few years the fishing operations have been confined to the area around the Fiji Islands, generally speaking. If the present conditions remain unchanged, the problems of resources and operational cost of the fleet will likely be brought up in the near future and for this reason, the industry asked the Japanese Fisheries Agency last year to permit small catchers to be carried aboard the mothership, but the request was denied. In some quarters it is said that if the mothership can carry small catchers on deck and reduce the number of regular catchers belonging to the fleet, the radius of operations will be larger and operations will be rationalized both from the standpoint of economy and operation. This will certainly be a problem for 1961.

Frozen tuna transshipped to the United States are taken care of at transshipping points located in Central and South America. Shipment to the United States is by freighters. The Japanese vessels in pelagic tuna fishing must have either their own tuna bases or establish packing plants. Some Japanese fishing companies are said to be planning to establish local packing companies and if they materialize, a way will be opened for export to the United States. (Fisheries Economic News, February 3, 1961.)

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TUNA VESSEL OWNERS SUBMIT COST ESTIMATES:

Vessel owners of tuna catcher boats (85 to 200 gross tons) fishing for tuna motherships recently submitted a petition to the Japanese Fishery Agency asking for an expansion of present fishing grounds and an increase in the catch quota. Vessel owners claim that present restrictions make it difficult to conduct profitable operations. In support of their claims, they submitted cost figures based on the No. 3 Tenyo Maru tuna mothership operations in 1960. That fleet landed a total of 6,426 metric tons valued at 335,856,000 yen (US\$932,933) at the mothership. Divided equally among the 45 vessels which worked with that fleet, each vessel received a gross of 7,450,000 yen (US\$20,695), which can be broken down as follows:

Japan (Contd.):

	Yen	US\$
Gross	7,450,000	20,695
Cost of operating vessel (fuel, food, etc.)	2,285,000	6,345
Net balance	5,165,000	14,350
Crew's share (40 percent of net balance). (25 shares--82,540 yen or US\$230 per share, equal to 33,000 yen or US\$90 a month)	2,066,000	5,740
Owner's share	3,099,000	8,610
Owner's expenses:		
Amortization	890,000	2,470
Fishing gear	157,000	435
Vessel equipment	50,000	140
Officer's share	272,000	755
Crew insurance	66,000	185
Vessel insurance	184,000	510
Taxes	50,000	140
Maintenance	500,000	1,390
Miscellaneous expenses	50,000	140
Total	2,219,000	6,165
Owner's profit	880,000	2,445

Vessel owners state that the above record was achieved by intense fishing and catching the full quota allotted the Tenyo Maru fleet, and contend that profits will likely be much less this year. (Suisan Keizai Shimbun, February 12, 1961.)

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COLORED CELLOPHANE PREVENTS RANCIDITY IN FROZEN FISHERY PRODUCTS:

Studies by the Japanese have established that colored cellophane packaging prevents rancidity in frozen fishery products during storage. Fish products are apt to lose quality through auto-oxidation of their oil content. Numerous investigators have reported on the auto-oxidation of oil accelerated by heat, light, moisture, heavy metals, etc. Ultraviolet light produces the most acceleration, followed by violet and blue light.

Some chemical characteristics of specimens of methyl oleate, skipjack-head oil, and lard kept wrapped with different commercial colored cellophanes were studied. It was concluded that deep-orange cellophane capable of absorbing all light waves shorter than 540 millimicron gives excellent protection to these specimens against sunlight. In wrapping fish products, orange cellophane seems to be superior to green as far as the external appearance of the products is concerned. The wide use of orange cellophane for wrapping frozen fishery products is recommended by the researchers. (Bulletin of the Japanese Society of Scientific Fisheries, vol. 25, no. 3, 1959.)

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EXPORT MARKET FORECAST FOR FISHERY PRODUCTS, 1961:

The Japan Export Trade Promotion Agency has made the following forecast on export market conditions for fishery products in 1961.

Canned Fish Export Market: Demand for canned tuna has increased in Europe and the United States import quota for canned tuna in brine for the lower tariff rate is higher this year. These developments point to an increase in canned tuna exports; 1961 exports should total about 3.7 million cases.

Exports of canned salmon should be about 1.5 million cases, about the same as in 1960; exports of canned crab should be about 600,000 cases.

Exports of canned saury should total about 300,000 to 350,000 cases if fishing conditions improve. In 1960, saury landings declined drastically and canned saury stocks are presently depleted.

Frozen Tuna Export Market: Exports of frozen tuna to Europe showed a tremendous increase in 1960 due to more vessels participating in the Atlantic tuna fishery, and prices dropped in mid-season. This year demand in Europe, primarily Italy, is expected to be about the same as last year, with better control being exercised over deliveries.

Whale Oil Market: Production of whale oil is expected to increase with the addition of one more whaling fleet this year. However, domestic demand is expected to increase and so exports of whale oil are expected to be at about the same level as in 1960. (Nippon Suisan Shimbun, January 30, 1961.)

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FISHING COMPANY BUILDS COLD-STORAGE PLANT IN CANARY ISLANDS:

A large Japanese fishing company expects to complete the construction of a 3,000-ton capacity cold-storage plant in Las Palmas, Canary Islands, by this summer. This plant is being constructed jointly by the Japanese firm and an Italian firm.

The Japanese firm has been utilizing Las Palmas as a base of operations for its Atlantic trawl fleet, which this year totals eight vessels. Construction of the freezing plant will facilitate the shipment of catches made by these trawlers, which previously returned directly to Japan with full loads or transship-

Japan (Contd.):

ped their catches to Japan via commercial vessels.

The same Japanese firm has opened up a field office at Monrovia, Liberia. Eventually the firm hopes to establish Monrovia as a fishing base for its tuna fleet operating in the Atlantic Ocean. (Nippon Suisan Shimbun, February 27, 1961.)

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FISHING COMPANY PLANS FISH-SAUSAGE AND COLD-STORAGE PLANTS:

A Japanese fishing company is planning to build a fish ham-sausage plant, a freezing plant, and a refrigeration plant in the city of Yamato, Kanagawa Prefecture. Construction was due to begin in February 1961.

The company that is building the plants is one of the larger fishing companies in Japan. According to the 1960 Yearbook of Fisheries, tuna sales made up to 70 percent of the company's total sales and company-owned vessels at the end of 1959 totaled 14. Six of those 14 vessels (one each of 1,250, 700, 550, 409, 409, and 320 gross tons) operated out of Italy.

The company operates one salmon mothership (Nichian Maru) and a freezer (Otsu Maru, 8,000-ton class), and also operates a number of trawlers in the East China Sea trawl fishery.

The firm also owns a two-line cannery (daily capacity of 600 cases) at Kesenuma, Miyagi Prefecture, in northeastern Japan. (Nippon Suisan Shimbun, January 23, 1961; 1960 Yearbook of Fisheries, January 1960.)

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FISHING VESSEL CONSTRUCTION TRENDS:

In January 1961 the Japanese Fishery Agency approved the construction of 140 fishing vessels. They include 18 tuna long-line vessels (ranging from 99 to 389 gross tons) and 7 smaller tuna long-line vessels (each of 39 gross tons).

Other vessels approved for construction are a freezer-carrier vessel of 5,000 gross tons for a large fishing company and a carrier vessel of 1,480 gross tons for another fishing company.

Still another large Japanese fishing company is constructing a 10,000-ton class vessel in Hiroshima at a cost of 1.5 billion yen (US\$4.2 million). The vessel is scheduled to be completed in April and is to be sent to the Olyutorski area to serve as a mothership for the bottomfish long-line fishery. About 30 catcher boats in the 75-ton class shall be assigned to her, of which 10 will be crab tangle-net vessels. The mothership later will be used as a freezer vessel for Antarctic whaling. (Shin Suisan Shimbun, January 30, 1961; Shin Suisan Shimbun Sokuho, January 12, 13, 21, 31, 1961.)

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GOVERNMENT PLANS TO IMPORT FISH MEAL:

The Japanese Fishery Agency and Bureau of Animal Husbandry have held different views on fish meal imports. Fishery Agency and domestic fish meal producers (whose views the Agency supports) are now greatly concerned over the recent development where funds have been appropriated in the Ministry of Agriculture and Forestry's budget for next fiscal year to pay for fish meal imports. This move was primarily instigated by the Bureau of Animal Husbandry, and the Fishery Agency until recently was completely unaware of this development. The sum of 1,207,600,000 yen (US\$3,354,444) has been allotted in the next fiscal year's budget to cover the cost of importing 32,000 metric tons of fish meal.

However, for the Government to import fish meal as proposed in the budget, fish meal must first be covered under the Feed Stabilization Law. Despite the Fishery Agency's objection, it seems to be a matter of time only before the proposal to include fish meal in the Feed Stabilization Law will be approved.

According to the Bureau of Animal Husbandry, the purpose of subsidizing the import of fish meal is to promote the orderly importation of fish meal and help stabilize the demand for fish meal as an animal feed product. On the basis of this fiscal year's (ends March 31, 1961) import of foreign fish meal, which is expected to total 30,000 tons, the Japanese Government hopes to import 32,000 tons next fiscal year beginning April 1, 1961. However, should saury fishing improve over last year's disastrous season and production of saury fish meal increase accordingly, Bureau of Animal Husbandry claims that the Government will then give this matter careful

Japan (Contd.):

consideration and will not necessarily import 32,000 tons of foreign fish meal as provided for in the budget.

Bureau of Animal Husbandry states that the Bureau shall consult the Fishery Agency on ways and means of importing fish meal even under the proposed new set-up, and is presently pushing plans to incorporate fish meal in the Feed Stabilization Law.

Concerning this fiscal year's imports, the Animal Husbandry Bureau has continued to negotiate with the Fishery Agency on importing an additional 10,000 tons of fish meal in view of shortages in supply expected in March and April. Earlier a quota of 20,000 tons had been approved for import, of which 18,000 tons have already been consumed. The Fishery Agency approved the Bureau's proposal to import the additional 10,000 tons of fish meal under the condition that discussions would be held between the Animal Husbandry Bureau and the Fishery Agency on the disposition of savings resulting from importing meal, and that users shall pay no less than 46,000 yen (US\$127.78) per metric ton for domestic saury fish meal even if the price of this product should decline below the 46,000-yen level. (Nippon Suisan Shimbun, January 23 and 30, 1961.)

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INDUSTRY PROTESTS PLAN TO IMPORT FISH MEAL:

The disclosure that an allocation of approximately 1.2 billion yen (US\$3,355,555) had been made in Japan's budget for the fiscal year beginning April 1, 1961, for importing 32,000 metric tons of fish meal (a move engineered by the Livestock Bureau, Ministry of Agriculture and Forestry) has created a tempest in the Japanese fish meal industry.

Immediately following this disclosure, the Secretary of the Livestock Bureau made the following public announcement: "In view of existing shortages in fish meal supply, it was only logical that funds should be budgeted for importing fish meal to stabilize prices. If the Fishery Agency can arrange for an adequate supply of fish meal, then the funds will not be used for the purpose that they were budgeted for.

"A public proclamation must be made concerning the inclusion of fish meal as an item covered under the Feed Supply Stabilization Law. For this purpose, the Committee on Supply Stabilization shall meet in March or April to discuss this matter. Fishing industry representatives shall be appointed to this committee so that their full views can be heard.

"Price differentials ('profits') realized from importing fish meal shall be used to plug deficits in the Food Control Fund. However, the Livestock Bureau shall consult with the Fishery Agency on the disposition of 'profits' expected from the sale of 10,000 tons of fish meal to be imported this year. No such agreement had been made between the Bureau and Agency on the 70 million yen (US\$194,444) realized from the earlier import of 20,000 tons of fish meal. This money shall perhaps be utilized for studies on animal feed."

Concerning the recent trend where fishing companies have begun to enter the livestock-raising business, the Secretary stated that such investments in an enterprise of national economic importance were desirable, but care should be exercised to prevent confusion within the livestock industry. Perhaps some controls should be instituted at the present time, for it is feared that the big fishing companies would overwhelm the smaller farmers and create apprehension in related industries.

In reply to the Secretary's statement, fish meal producers, led by the National Federation of Fishing Cooperative Associations, retorted that the Livestock Bureau had acted arbitrarily, and claimed that fish meal imports should not be covered under the Food Control budget for it is not a foodstuff and fish meal should be imported as animal feed. If foreign fish meal is to be listed as a special product under the Animal Feed Supply Stabilization Law, then it would be logical to place fish scrap and domestic fish meal under this law also. The Federation further stated that Government involvement in the purchase of foreign fish meal would mean that "profits" would only be used to plug deficits in the Government (Food Control) budget and would not result in any future benefits to the fish meal industry. At the same time, Government participation would tend to stifle the freedom of fish meal and livestock producers. (Suisan Keizai Shimbun, February 4, 1961; Suisan Tsushin, February 6, 1961.)

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Japan (Contd.):

**IMPORT PRICE FOR
PERUVIAN FISH MEAL:**

According to recent available information the 10,000 metric tons of Peruvian fish meal to be imported by Japan in the near future will likely be imported at a price of \$95.50 c. & f. per metric ton. (Nippon Suisan Shim-bun, February 8, 1961.)

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**GROUND FISH MOTHERSHIP FIRMS
PLAN UNIFORM CHARTER RATES
FOR CATCHER VESSELS:**

In preparation for the departure of the groundfish mothership fleet for North Pacific waters in May, the large Japanese fishing companies are planning to adopt uniform charter rates for catcher vessels to be assigned to their mothership fleets. In the past, each mothership company conducted separate negotiations with individual catcher-boat owners, fixing rates according to vessel capacity based on an evaluation of size, motor power, and kind of vessel. This has resulted in large differences in sums paid by companies for chartering catcher vessels. Companies often vied with one another in chartering vessels, which resulted in higher charter rates. The mothership companies hope to eliminate this wasteful competition by establishing a uniform rate.

The uniform charter fee shall cover repairs, equipment, increases, if any, in insurance rates, and cost of restoring vessels to their original condition at the end of the charter. Different rates are expected to be paid depending on the objective for which a vessel is chartered, for example for dragging or for long-lining. Higher rates are expected to be paid for the charter of vessels which normally engage in some other fishery during the charter period; lower rates for vessels chartered during their off-season periods.

The charter rate for one month for a 75-gross ton bottom trawler from the East China Sea fishery is expected to average about 750,000 yen (US\$2,083); that for a 70-gross ton long-line vessel about 700,000 yen (US\$1,944), the rates paid in 1960. (Su-isan Keizai Shim-bun, February 3, 1961.)

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HERRING IMPORTED FROM U. S. S. R.:

The Hokkaido Federation of Fisheries Cooperatives in Japan imported some herring from the Soviet Union in May 1960. This year it was decided to repeat the order. Negotiations on price were going on as of February 9. According to well-informed sources, the price will be agreed at \$85-\$90 per metric ton and the quantity is expected to be 1,000 tons. Five trading firms will handle the imports and points in the negotiations are:

(1) The Federation wants to pay \$80 while the Soviet side is asking for \$95 a ton for the herring.

(2) Japan last year sent a carrier of the 200-ton class to pick up the herring. This year 3 or 4 larger carriers will be used.

(3) Since the quota was increased to US\$100,000, some 1,000 tons may be imported. (Fisheries Economic News, February 9, 1961.)

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**VALUE OF FISHERIES INCREASES 13
PERCENT FROM 1958 TO 1959:**

Japan's fisheries landings in 1959 totaled 5,880,000 metric tons (excluding whaling activities), 7 percent greater than for 1958 and 20 percent higher than for 1955. The fish catch in the inland waters remained roughly at the same level as for the previous year, but other areas showed an increase. Japan's catch of 19,490 whales in 1959 was 757 whales greater than for the previous year. Considering the fishing industry as a whole, Japan's fishery landings (excluding whales) valued at \$773 million and the whale catch valued at \$61 million were each roughly 13 percent higher than for 1958.

In number and tonnage of fishing vessels, Japan had at the end of 1959 some 400,477 vessels with a gross tonnage of 1,672,546 tons (average tonnage per vessel of 4.18) engaged in fishing activities. Nearly all of the vessels were engaged in coastal or open-sea fishing activities; only a small percentage was in shallow inland water fishing activities (21,124 vessels with 12,874 gross tons). During 1959, there was little change in the total number of vessels or in the gross tonnage of those vessels, but progress was made in the modernization of the fleet. There was an increase of roughly ten percent in powered fish-

Japan (Contd.):

ing crafts and roughly the same percentage reduction in nonpowered crafts. Moreover, there was an increase in steel vessels in contrast to a reduction in tonnage of wooden vessels during the year. (United States Embassy, Tokyo, February 8, 1961.)



Mexico

FISHERY COOPERATIVES AIDED BY GRANTS:

According to a Mexico City newspaper of February 12, 1961, the Government is granting financial and technical assistance to various fishery cooperatives in the Campeche and Salina Cruz areas. This is the result of an inspection trip by the Minister of Industry and Commerce and the Director of the Cooperative Development Bank.

The Director of the Bank has announced that a credit of 300,000 pesos (about US\$24,000) had been granted Campeche cooperatives to purchase five vessels for scale fish; Campeche octopus fishermen were granted 600,000 pesos (about US\$48,000) for repair of vessels and liquidation of debts; Ciudad del Carmen cooperatives were given 450,000 pesos (about US\$36,000); and Salina Cruz cooperatives 1,800,000 pesos (about US\$144,000) to buy three shrimp trawlers.

Under study are requests from cooperatives: (1) In Salina Cruz to purchase 14 shrimp trawlers and a shrimp-freezing plant; (2) In Ciudad del Carmen to buy 7 shrimp trawlers; and (3) In Campeche to buy 5 marine motors and to recondition gear and equipment.

It was also announced that the Cooperative Development Bank was instituting a technical assistance program for fishery cooperatives which would consist of three aspects.

(1) Offer services of auditing, management, or bookkeeping and place biologists at the disposition of the cooperatives. The costs are to be covered by the trust fund when the cooperatives cannot afford them.

(2) Authorize a fishery technicians scholarship from each fishing zone to cooperative members to study at the Naval School of Ma-

rine Biology in Veracruz. For the present cooperatives of Ciudad del Carmen, Salina Cruz, Campeche, Guaymas, and Mazatlan have been invited to designate fellows.

(3) The first two fishery technicians to finish this year shall be employed as advisers by the Cooperative Development Bank.

The above assistance is not obligatory but will be granted those fishery cooperatives that request it, the United States Embassy in Mexico City reported on February 16, 1961.



Morocco

FISHERY LANDINGS AND EXPORTS, 1960:

Earlier in 1960 it was expected that the sardine catch, the mainstay of the Moroccan fishing industry, would be very large. This was the case in Safi where the 1960 catch was estimated at 75,000 metric tons. The previous record for the port had been 61,000 tons. The catch in Agadir, which normally supplies about half the sardines of Morocco, however, was very disappointing. The industry there has not been able to recover from the disastrous earthquake of February 1960.

Preliminary but official figures set the total fish and shellfish catch in Morocco for 1960 at 106,699 tons, of which 90,000 tons were sardines. This compares to a catch of 137,500 tons in 1959 of which 103,880 tons were sardines.

Exports of canned fish in 1960 continued to be better than for the preceding two years. In spite of the poor landings at Agadir, exports of canned sardines from Agadir from the beginning of the season in June to the end of October 1960 were almost double those in the same period in 1959.

Exports of fishery products increased steadily in both quantity and value from 1958 to 1960. Most of the increase was due to a better market for canned sardines. Over the 3-year period fish meal exports declined sharply both in price and volume. Canned tuna exports declined in 1960 as compared with 1959; however, the exports of other canned fish improved, primarily due to increased canned mackerel exports.

In October 1960, the exports of all canned fish totaled 5,555 tons, almost twice

Morocco (Contd.):

Moroccan Fishery Products Exports, January-October 1958-1960									
	Quantity			Value					
	1960	1959	1958	1960	1959	1958	1960	1959	1960
 (Metric Tons) (Dirhams 1,000) (US\$1,000)		
Fresh fish.....	16,709	16,368	13,677	26,951	21,413	19,907	5,326	4,232	3,934
Fish meal.....	10,321	13,815	17,473	4,746	7,782	8,641	938	1,538	1,708
Fish oil.....	3,877	2,958	3,087	2,316	1,739	2,225	458	344	440
Canned fish:									
Sardines.....	26,232	23,773	21,707	72,810	55,173	50,275	14,389	10,904	9,936
Tuna.....	2,165	2,865	2,704	7,670	8,724	8,884	1,516	1,724	1,756
Others.....	4,134	2,991	1,663	6,440	3,029	1,563	1,273	599	309
Totals.....	63,438	62,770	60,311	120,933	97,860	91,495	23,900	19,341	18,083

the tonnage of any month in the past few years. Efforts continued in the Casablanca region to increase the consumption of fresh sardines. Wholesale prices for sardines in Casablanca averaged about 12 U. S. cents a pound in 1960. (United States Embassy, Rabat, January 25, 1961.)



Netherlands

WHALING COMPANY REPORTS THAT 1959/60 SEASON WAS BEST IN 14 YEARS:

The management of the Netherlands Whaling Company reports that the 1959/1960 season was very favorable. For the first time in its 14-year existence the company can make a repayment amounting to fl. 149,442 (US\$39,608) against the Government subsidy, thus leaving a balance of fl. 34,222,872 (\$9,070,460) in government subsidies to be repaid. During the 1958/1959 season the Government was obliged to pay the company fl. 1.9 million (\$503,500) in order to enable the company to pay the guaranteed dividend of six percent.

The total value of the entire 1959/1960 season's production amounted to fl. 22 million (\$5,830,900) compared to fl. 18 million (\$4,770,730) during the 1958/1959 season. Operation costs rose from fl. 11.8 million to fl. 14.4 million (\$3,127,480 to \$3,816,590). General expenditures amounted to fl. 778,823 (\$206,420) leaving a gross profit of fl. 7 million (\$1,855,290), a 30 percent increase over the fl. 5.4 million (\$1,431,220) for the 1958/1959 season. After depreciation, taxes, and interest net profits amounted to fl. 1,063,138.46 (\$281,775).

The whale oil was sold at an average price of fl. 766.61 (\$203.18) per metric ton, as com-

pared to fl. 769.23 (\$203.88 during the preceding year. Sperm oil brought an average price of fl. 569.17 (\$150.85) (fl. 591.65 or \$156.81 during the preceding year), fish meal fl. 523.70 (\$138.80) (fl. 597.43 or \$158.34 during the preceding year), and whale meat fl. 792.91 (\$210.15) per ton.

Production of the Netherlands' Whaling Company's Whaler, the Willem Barendsz, 1958/59 and 1959/60		
Product	1959/60 Season	1958/59 Season
 (Metric Tons)	
Whale oil.....	23,399	18,663
Sperm oil.....	344	2,295
Vitamin oil.....	11	12
Whale meal.....	5,022	3,698
Whale meat.....	1,726	-
Whale bones.....	63	38

The management observes that a total of 21 expeditions are operating in the Antarctic in the 1960/61 season, namely 8 from Norway, 2 from Great Britain (last year 3), 7 from Japan (last year 6), 3 from the U. S. S. R. (last year 2), and 1 from the Netherlands. The changes are reportedly due to the sale of an English whaling fleet to Japan and the addition of a new Russian whaling fleet.

The management further reports that the Willem Barendsz started the catch for the current season on November 28, 1960. The fleet consists of the Willem Barendsz and 14 catchers. As a result of the satisfactory production and sale of frozen whale meat the company decided to enlarge the freezing capacity on board the Willem Barendsz from 1,700 tons to about 2,500 tons. The sale of the frozen meat is reportedly assured up to and including the 1962/1963 season, while frozen whale liver can be included under the contract for the frozen whale meat. As a result of the sale of frozen liver there will be no vitamin oil available in the present catch.

The company reports that it has concluded an agreement with a Japanese fishing compa-

Netherlands (Contd.):

ny to process and freeze whale meat from the Willem Barendsz and deliver it to Europe where it has already been sold. (United States Consulate in Amsterdam, February 8, 1961.)

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ANTARCTIC WHALING PRODUCTION TRENDS, FEBRUARY 14, 1961:

The 1960/61 Antarctic whaling season's catch as of February 15 by the Netherlands Whaling Company was about equal to that of February 14, 1960, in the 1959/60 season, the shareholders were told at a general meeting held on February 20, 1961.



The firm's directors called the figures "not bad," but said there was "no cause of jubilation," since the catch which began on November 28, 1960, started 18 days earlier than in the previous season. As the season was only half over, the directors refrained from predictions as to the final results.

Production for 1960/61 on February 15 was whale oil 10,401 metric tons as compared with 11,571 tons on February 14 last year; sperm oil output rose from 320 to 1,289 tons; meat fell from 2,306 to 1,950 tons; but frozen meat was up from 825 to 1,009 tons. A Japanese refrigerated vessel, which under an agreement is taking over whale meat from the Dutch company's factory-ship, produced an additional 5,187 tons of frozen whale meat. (Foreign Agricultural Service Report, February 20, 1961.)



Nicaragua

SHRIMP LANDINGS ON CARIBBEAN COAST MAY BE INCREASED BY NEW PLANTS:

The Nicaraguan fishing industry is centered on the Caribbean coast. The fishing

industry is mainly concerned with the shrimp and spiny lobster fisheries, though small quantities of food fish are also caught incidentally. Food fish are consumed locally, but almost all of the shrimp and spiny lobster landings are exported frozen to the United States. It is estimated that over 500,000 pounds of heads-off shrimp were exported in 1960, and a much smaller quantity of spiny lobsters. With a combination of more vessels in operation and better shore facilities, the landings in 1961 should increase.

By far the largest fishing company operating in Nicaragua is a French-owned firm, which presently has over 20 active shrimp vessels. This company's land-based installations are located in El Bluff and are valued at over US\$1 million. In addition to this firm, there is one company building shore facilities on Corn Island, off the coast from Bluefields, and another company plans to begin construction in the near future on the same island, though both of these plants will be small. A limited amount of spiny lobster and shrimp fishing is also carried on by local fishermen using small boats, which usually sell their catch on the local market or to one of the companies with freezing facilities for export.

Although foreign companies exploit tuna grounds 20 miles and more off the Nicaraguan Pacific coast, the only commercial fishing is small-scale operations carried on by the few charter sport-fishing vessels in the area when they do not have clients. This fishing is exclusively for local consumption. (United States Embassy, Managua, February 13, 1961.)



Norway

ANTARCTIC WHALING TRENDS:

The Norwegian Antarctic whaling expeditions had poor results in the first part of the 1960/61 season. Preliminary figures for the first 11 days (December 28, 1960-January 7, 1961) show a total production of 69,390 barrels of whale oil as compared with 93,656 barrels produced in the first 13 days of the 1959/60 season. Average daily production during the first part of this season was down 1,000 barrels from the same period of the 1959/60 season. Poor weather conditions were held responsible for the lower production at the beginning of the season.

A later report showed some improvement during the first 25 days of the 1960/61 season

Norway (Contd.):

the production totaled 198,500 barrels of whale oil as compared with 193,900 barrels for the first 27 days of the 1959/60 season. But in comparing the two seasons, it should be noted that Norwegians are using 81 catcher boats this season--11 more than last year.

During the 1959/60 Antarctic whaling season Norwegian expeditions produced only 4,515 blue-whale units of their national quota of 5,800 blue-whale units. The quota was based on the actual annual production prior to the 1959/60 season.

In protest against the recent decision of the Norwegian Government to remain in the International Whaling Convention, the whaling industry has withdrawn its representative from the Norwegian Whaling Council. As a consequence, there will be no Norwegian industry representative in the Norwegian Delegation to the London whaling quota talks. (United States Embassy, Oslo, February 17, 1961.)

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AID FOR FISHERMEN APPROVED:

On February 2, 1961, the Norwegian Storting approved an appropriation of 59.7 million kroner (US\$8,358,000) for aid to fishermen in 1961. The appropriation will be used: (1) 22 million and 11.5 million kroner (\$3,080,000 and \$1,610,000) to support herring and cod ex-vessel prices, respectively; (2) 23.5 million kroner (US\$3,290,000) to assist in defraying the costs of nets and bait; and (3) 2.7 million kroner (US\$378,000) for miscellaneous purposes. The total appropriation for aid to fishermen is larger than for 1959, but cod fishermen will receive somewhat less in 1961.

Herring ex-vessel prices will be supported for the first time from appropriated funds in 1961. Prior to this year herring prices have been maintained by payments into or withdrawals from the industry's Herring Price Equalization Fund. Due to the sharp drop in herring meal prices, withdrawals have just about depleted the Fund.

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FIRST STERN TRAWLER LAUNCHED:

Norway is another of the several fishery nations to join the trend to stern trawlers.

The first stern trawler (Hekktind), built for a firm in Melbu, North Norway, was launched early this year at Bergen. (News of Norway, February 2, 1961.)

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FISH CANNERS FORM EXPORT POOL:

A large Norwegian firm in Stavanger, a pioneer in the business of canning sardines, has joined two major fish canneries in Bergen in establishing a joint export organization with an office in Bergen. The export firm will take care of exporting sardines (brisling and sild) and kippers to the European Free Trade Association (EFTA) nations, plus continental and other special markets.

Last year, the three participants canned about half of the brisling, sild, and kippers produced in Norway.

The joint export organization was primarily launched to take advantage of the opportunities that will open up as tariffs among the Outer Seven are reduced. The cost of sales promotion in the foreign markets will be divided among the participants in the new firm according to their share. (News of Norway, January 26, 1961.)

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FISHERIES TRENDS, 1960:

Norwegian fishery landings in 1960 totaled about 1,307,000 metric tons or some 679,000 tons below the record set in 1956 and 120,000 tons below the annual average landings for the years 1946-59. The decline in the landings since 1956 has been due almost entirely to the greatly diminishing herring catches. The "ex-vessel" value of the 1960 catch amounted to 641.7 million kroner (US\$89.8 million) or 25 million kroner (\$3.5 million) below the 1959 level. The value of exports of fish and fish products went down from about 950 million kroner (\$133.5 million) in 1959 to approximately 900 million kroner (\$126.0 million) in 1960. Exports of frozen fillets increased by 5,000 tons to nearly 26,000 tons in 1960, however.

The Prime Minister has announced that a proposal soon will be placed before the Storting to expand the Norwegian fishing boundary to 6 miles effective April 1, 1961, and to 12 miles effective September 1, 1961. He added, however, that before taking action Norway would negotiate agreements on fishing rights with those nations whose fishermen have tra-

Norway (Contd.):

ditionally fished within the new boundaries. An agreement with the United Kingdom has already been completed and negotiations with West Germany are under way. According to the press, Norway has had no approach from the U. S. S. R. in connection with the impending expansion of the fishing boundaries. This is presumably because the Soviets have themselves proclaimed a 12-mile fishing and territorial boundary. (United States Embassy, Oslo, January 26, 1961.)

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**PRODUCERS SEEK TO BARTER
DRIED-SALT FISH FOR CUBAN SUGAR:**

The Norwegian press reports that a representative of a private Norwegian firm went to Cuba to negotiate a barter deal involving dried-salt fish (klipfish) and Cuban sugar. The Norwegian firm proposes to barter klipfish valued at 10 million kroner (US\$1.4 million) for 20,000 metric tons of sugar. The Norwegian Government has authorized the negotiations.

The initiative for the proposed barter deal came from the klipfish exporters who hold large stocks of the product. In the past two years exports of klipfish to Cuba have averaged 12 million kroner (\$1,680,000) in value.

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**WINTER HERRING FISHERY
PROSPECTS UNCERTAIN:**

The annual winter herring fishery off the west coast of Norway barely got under way the week of February 12, far behind schedule. On February 16, fishermen had landed a total of less than 240 metric tons, as compared with some 90,000 tons on the same date in 1960, described as a catastrophic herring year.

The outlook for Norway's annual herring fishery towards the latter part of January 1961 appeared very uncertain. By that time, huge shoals should have been reported on the spawning banks off the Norwegian west coast. But not a single shoal had been spotted by ocean research vessels and scout planters probing the Norwegian Sea. And marine biologists said frankly that they did not believe the herring would show up for several weeks yet. This would cut the season, normally running 10-11 weeks, to a mere 6-7 weeks.

Meanwhile, fishing vessels from many coastal districts had assembled in the port of Aalesund to await the annual herring influx. Only about 300 purse-seiners will take part this year, as compared with 450 last year and some 600 in 1959. The reason for the reduced participation is that purse-seining for herring has become less and less profitable in recent years. In 1960, only one-fourth of the purse-seiners managed to catch enough herring to show a profit. The rest finished the season deep in debt for gear and provisions. In the period 1957-1960, the purse-seine fleet as a whole suffered a net capital loss of Kr. 115 million (US\$16.1 million). Crew members, working on shares, are somewhat better off. In case of an operating loss, the State has guaranteed each man a minimum share of Kr. 125 (\$17.50) per working week. (Proceeds from the catch are prorated, with 25 percent going to the fishing vessel's owner; 25 percent to the owner of the nets; 5 percent to the captain; 5 percent to the master seiner; and 40 percent in equal shares to the crew.)

Herring meal and oil processing plants, which buy two-fifths of the total catch, are feeling the pinch of South American competition, especially in Peru. In the opinion of the Fisheries Minister, the enormous expansion of Peru's fish meal industry represents a greater problem than the diminishing herring catch. In a recent address, he said radical changes were required to assure the future. In the first place, he suggested, the herring fleet should be used in the North Sea and other deep ocean fisheries. Secondly, much more herring should be salted and filleted for human consumption. "We have depended too much on industrial utilization," he declared.

The winter herring fishery, most important of Norway's herring fisheries, produced 3.2 million hectoliters (about 297,600 metric tons) last year, the worst catch since 1934. In 1959, also a poor year, the total catch was 4.5 million hectoliters (about 418,500 tons), whereas the annual average for 1954-58 was over 9 million hectoliters (approximately 837,000 metric tons).

Scientists at the Oceanographic Research Institute in Bergen, operated by the Directorate of Fisheries, take a dim view of prospects facing Norway's herring fisheries, at least for the next several years. Their dire prognostications are based on comprehensive age studies which show that herring spawned in 1950, the last big spawning year, accounted for the large catches in 1954-57. And the 1950

Norway (Contd.):



A large purse seine has been set around a submerged school of herring. The seine has been pursed and the net is being dried into the mechanized purse seine dories for confining the fish more closely in the bag of the net.

herring, now in their 11th year, are still far more plentiful than those spawned in subsequent years. These and other significant findings indicate that the stock of mature herring spawning on the banks off Norway will continue to diminish for 2-3 years. (News of Norway, January 26 and February 23, 1961.)

during January 1961 was US\$71.50 a metric ton (US\$64.86 a short ton), an increase of about 17.2 percent over the December 1960 average of \$55.34 a short ton. (United States Embassy in Lima, February 16, 1961.)



Portugal

FISHERIES TRENDS, 1960:

Although no recent official estimates of the 1960 cod catch were available early in 1961, it appears that 1960 was an excellent year for Portuguese fisheries. Statistics for the first nine months indicated that the sardine catch may even exceed that of the record 1958 catch, and the domestic demand for sardines held



Peru

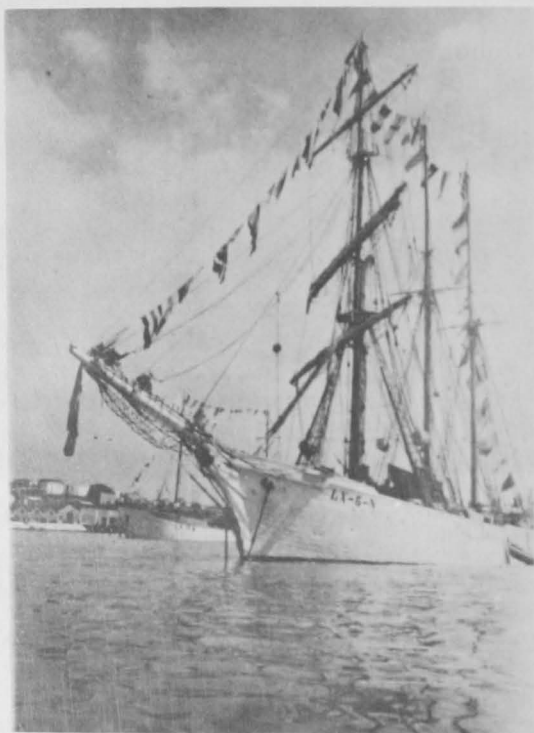
EXPORT PRICES FOR FISH MEAL, JANUARY 1961:

The Peruvian National Fisheries Society (the trade organization for the fisheries industry) reported that the average export price for fish meal (65-67 percent protein)

Portugal (Contd.):

prices at a satisfactory level, even though exports of canned sardines during January-November 1960 were down about 14 percent from 1959. Trawl fishing, on the basis of figures available through August 1960, seemed to be running at a satisfactory level comparable to 1959, but with somewhat improved prices.

Most of the cod fleet returned during October 15-November 15, 1960, and at that time the catch for the 1960/61 season was estimated at 64,000 metric tons of wet-salted cod. Some trawlers had returned to the Banks for a second trip and did not reach Portugal until December. The catch was not regarded as outstanding, though a great improvement over the 1958/59 and 1959/60 seasons.



One of the oldest Portuguese cod line-fishing vessels "decked out" for blessing.

The supply of dried cod for consumers has been tight, but ceiling prices have not been changed. During the Christmas season about 3,000 tons were put on the market, of which about 720 tons were imported from Norway. Some small quantities of the 1960/61 catch had already been processed and sold early in 1961.

In January this year some trawlers were already starting for the Grand Banks for the

1961/62 season in which 26 or 27 trawlers and 47 hook-and-line vessels manned by some 5,000 fishermen are expected to participate, or about the same fleet as last season's. The hook-and-line vessels were not expected to leave until later this year.

A decree of November 24, 1960, established a new Guild of Tuna Fishing Shipowners (Gremio dos Armadores da Pesca do Atum). The guild should assist the tuna-fishing industry in the improvement of fishing facilities, and in particular with its relationships with the Government. The establishment of such a guild has been discussed for several years, and is commensurate with the growing importance of this branch of the industry.

Lisbon's new fishing dock at Pedroucos has been leased for 25 years to Docapesca (Sociedade Concessionaria da Doca de Pesca, S.A.R.L.) which will install facilities such as compressed air, quick-freeze units, heating supply, laboratories, ovens, salt-water purifying apparatus, and other equipment. The dock and installations are expected to be fully operative in about two years. Docapesca resembles a local industry cooperative, as the majority of its shares are owned by the Municipality of Lisbon, the Sardine and Trawl Fishing Shipowners Guilds, and the Central Board of the "Casas dos Pescadores" (fishermen's union and welfare organization). The balance of the Docapesca shares are reserved for sale to fishermen, shipowners, and others associated with the industry.

There were two developments regarding agar-agar during the fourth quarter of 1960. On October 28, a ministerial order embargoed further exports of seaweed without prior authorization by the Regulatory Commission on Chemicals and Pharmaceuticals. The Commission is to authorize seaweed exports only in cases where it finds that exports are justified and will not be harmful to the country in any way. It appears that this measure was the aftermath of one or more attempts of a Lisbon firm to make unauthorized shipments of agar-bearing seaweed to Japan, in one instance via Amsterdam. The Portuguese Government restrictions on exports of agar-bearing seaweed are related to its sponsorship of the local agar-agar industry. One plant has been established for some years in Portugal, and in November operations by a second plant were authorized. This latter plant, located at Alverca, near Lisbon, expects to commence production of agar agar,

Portugal (Contd.):

alginate, and certain types of carrageen gums within about six months. (United States Embassy, Lisbon, January 27, 1961.)

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PLANT FOR FABRICATING ALUMINUM FISH CANS PLANNED:

A Canadian aluminum mining and fabricating company will, in collaboration with Portuguese canning interests, build and operate a plant in Portugal to produce aluminum fish cans. Text of the company press release of January 31, 1961, follows:

"As part of its continuing efforts to develop new markets, Aluminium Limited is collaborating with Portuguese canning interests to build and operate a plant in Portugal to produce aluminum fish cans, the Company reported today.

"Use of such cans, particularly for sardine-type packs, has been pioneered by Aluminium Limited's affiliates in Norway over many years. Practically all Norwegian export of kippered herring and most sardines are now packed in aluminum.

"Introduction of aluminum technique to Portugal, where sardine production is a major industry, will be based on the Norwegian experience. Initially the new canning plant will use specially anodized and lacquer-sealed aluminum strip produced by Aluminium Limited's affiliates in Norway or England.

"The new can-making company, in which two of the principal Portuguese fish canners are participants, is called Fabrica de Embalagens de Alumínio Limitada. Its plant will be in production later this year at Matosinhos, the main centre of the fish-canning industry. Capacity of the plant is expected to reach 12 million cans per year during the introductory phase.

"Aluminum cans provide considerable savings in shipping expenses as compared to heavier cans, the Company said. The Portuguese sardines will be marketed mainly in the United States where aluminum fish cans are enjoying increasing popularity because of their ease of opening, attractive appearance, and resistance to corrosion." (United States Consulate, Montreal, February 2, 1961.)

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Senegal

TUNA LANDINGS POOR AT MID-SEASON:

As the 1960/61 tuna season (Nov. 15, 1960-April 30, 1961 for the majority of the fleet) passed the halfway mark, the total catch amounted to scarcely 5,000 metric tons (2,000 tons for export, 3,000 tons for the French quota), far short of what it should be if 1961 goals are to be attained (13,500 tons canned, a minimum of about 10,000 tons frozen).

This reveals what has been a disappointing season, which in turn has highlighted for the first time what seems to be the most important shortcoming of Dakar as a prospective tuna center, its location. The problem centers on the fact that Dakar rests at the extremity of the real fishing grounds, which range roughly from the Gabonese coast to the coast of Sierra Leone. Really good fishing off the coast of Senegal occurs only in a seasonal pattern. This was never regarded as a very serious matter, for the tuna had in the past always been plentiful. However, this year a combination of cold weather and unfavorable ocean currents has limited severely the size of the catch, and has caused the clippers to travel as far as Abidjan, Ivory Coast (at least ten days round trip in the small French boats) to find favorable fishing grounds.

Proponents of Dakar's being a tuna center claim that the trouble lies in the type of fishing fleet France sends to fish tuna. For the most part it is made up of small vessels of 15 tons capacity. These proponents argue that with more efficient, larger vessels this occasional off-season necessity of travel to richer waters would not be very important and would obviate subsequent much higher freight rates from more distant ports for the finished product. Besides, they argue, Dakar's cooler and more favorable climate, its harbor facilities, freezing plant, and already existing canneries make it the more favorable port. Also, apparently the richest bait grounds lie between Sierra Leone and Dakar. So Dakar-based ships can catch bait simply en route to the fishing grounds.

However, opponents argue that all this simply obscures the point that if the fishing grounds are in the Abidjan vicinity, why go clear back up to Dakar every few days to land the catch. These feel that as soon as Abidjan (or any other suitable port on the Gulf of Guinea) is developed and capable of freezing and canning tuna, the importance of Dakar will diminish considerably.

Senegal (Contd.):

Meanwhile, the Government of Senegal continues to grapple with its problem of fisheries expansion. It attempted to locate the fish for the fishermen by airplane, but was unsuccessful. (United States Embassy, Dakar, February 13, 1961.)



South Africa

MOST OF 1961 FISH MEAL AND OIL PRODUCTION SOLD IN ADVANCE:

The South and South-West African fishing industry, which in 1960 sold its entire record production of 148,000 short tons, has already found buyers for 60 percent of its anticipated 1961 production. The 1961 production of fish-body oil has also been sold in advance, and the South African Fish Oil Producers' Association has made arrangements to charter the tanker Anella to carry the oil to overseas markets.

According to the Chairman of the South African Fish Meal Producers' Association, who has spent much of 1960 traveling to the markets for South African fish products, East Germany has become one of the large buyers of South and South-West African meal. In 1959 it purchased 11,000 metric tons through a London import house, and it has now bought £1 million (US\$2.8 million) worth direct from the Association.

In a period of market disruption, caused by the massive entry of Peru as the world's largest meal producer, the South and South-west African industry has gained from its coordinated and highly efficient marketing system in which fish meal is handled through one organization. South African fish meal has earned the confidence of world buyers as a quality product whose delivery creates no problem for the purchaser.

The South and South-West African industry was represented at the September 1960 conference in Paris of the International Association of Fish Meal Manufacturers. The five major fish-meal exporting countries reached, in principle, general agreement on the marketing of their product. In 1961 it was expected that the fish-meal consuming countries--non-producers and those whose production fell below national requirements--would need about 900,000 metric tons. This

would be met by an anticipated export surplus of about the same quantity from Peru, Norway, South and South-West Africa, Angola, and Iceland. These five countries agreed in principle to maintain their exports within an agreed share of total exports.

Commenting on the drastic drop in the price of fish meal, the Fish Meal Association Chairman said he had originally believed that overproduction, coupled with disorganized marketing, had been the main disruptive factor. He was now convinced that the decline was due almost entirely to disorganized marketing. In the closing months of 1960 he claimed there were no substantial unconsumed stocks of fish meal. The 1960 production was sold, but fluctuations in supply with abundance alternating with comparative scarcity have badly upset prices. Earlier in the year high production in South Africa, Peru, and other countries had brought meal down to a low of US\$80 a ton c.i.f. This was an uneconomic price far below the real value of the commodity. In August-October 1960, a drop in production and export supply, had sent the price up to more than \$100 a ton; in November the price had dropped again to \$85-87. If exporters could agree to maintain a stable flow, it would assist both them and buyers who have also been adversely affected by the unreliability of the market. (The South African Shipping News and Fishing Industry Review, December 1960.)



South-West Africa

FISHERIES THIRD MOST VALUABLE INDUSTRY:

Fishing is the third most important activity in South-West Africa's economy, after mining (diamonds and copper) and livestock-raising (cattle and karakul). There are roughly £7-£8 million (US\$19.6-22.4 million) invested in the industry, of which over £1 million (\$2,800,000) is invested in the spiny lobster (Jasus lalandii) industry. Most of the remaining investment is based on the pilchard (Sardinops ocellata) industry. The total value of South-West African fish products at the manufacturer's level during 1959 was estimated at £8.4 million (\$23.5 million) as compared to £9.3 million (\$26.0 million) in 1958. (The decline was due to a planned reduction of the canned pilchard pack.)

The spiny lobster industry, based at Luderitz, employed as of July 1960, 39 boats and

South-West Africa (Contd.):

about 300 Portuguese fishermen. Luderitz has six factories for the production of frozen spiny lobster tails, canned spiny lobster meat, and meal.

Table 1 - South-West Africa's Landings and Production of Processed Spiny Lobster, 1957-59

Year	Processed Production			
	Landings ^{1/}	Canned	Frozen Tails	Meal
	(1,000 Lbs.)			
1959	11,534	503	2,478	2,131
1958	8,897	430	1,777	1,882
1957	16,867	1,808	1,374	3,369

^{1/}Whole spiny lobsters.

The Administration, as a conservation measure, usually limits spiny lobster products export (except meal) to 3 million pounds a year. The major market is the United States; the dollar value of the 1958 canned meat and frozen tail production was estimated at US\$1,979,000 at the packers' level.

The pilchard or sardine industry, based at Walvis Bay, employed as of July 1960, 71 boats and 707 fishermen. The six factories producing canned pilchards, fish meal, and fish oil, employed, as of August 1959, 2,600 persons.

From 1952 to 1956 each factory was allowed an intake quota and these quotas totaled 250,000 short tons a season. In 1959, this total was raised by 10,000 tons, but was to include the maasbanker or jack mackerel (*Trachurus trachurus*) which are caught in small quantities. For the 1959 season a temporary quota increase amounting to 40,000 tons was also granted. In 1960 the additional limit was again allowed--a total quota of 310,000 short tons. In 1961, each of the four larger factories will have a quota of 48,750 tons, and the two smaller factories will be allowed 40,000 tons each, for a total of 275,000 tons. It is probable that an extra allowance for the 1961 season will also be granted, as for 1959 and 1960.

Table 2 - South-West Africa's Pilchard and Maasbanker Landings, 1955-60

Year	Pilchard	Maasbanker	Total
	(Short Tons)		
1960	(Breakdown not available)		1/310,000
1959	298,968	2,527	301,495
1958	252,556	5,469	258,025
1957	250,757	-	250,757
1956	250,264	783	251,047
1955	249,756	2,465	252,221

^{1/}Estimate.

Table 3 - South-West Africa's Production of Canned Pilchards, Fish Meal, and Fish Oil, 1955-60

Year	Canned Pilchards	Fish Meal	Fish Oil
	(Short Tons)		
1960	113,124	55,150	14,905
1959	41,943	60,852	19,377
1958	56,422	46,200	12,381
1957	42,838	46,768	10,793
1956	32,760	49,655	13,095
1955	23,154	51,878	11,859

Other fish caught in commercial quantities are: snoek, kabeljou, steenbras, sole, kingklip, stockfish, shark, and skate. In 1959, a total of 3,406 short tons of these fish were landed, of which 2,471 tons were snoek. The snoek (*Thyr-sites atun*) is salted, dried or smoked for export and was worth about £260,000 (\$728,000) in 1959 to the processor.

The South-West Africa Administration exercises close control over the fishing industry for the purpose of conserving the fish resources. Minimum sizes are established for landings of spiny lobsters, snoek, and whitefish. There is a limit to the gross tonnage of boats to be employed by each factory. Total factory intake quotas for pilchard and maasbanker, export quotas on spiny lobster, and the licensing of a limited number of processing plants are all conservation measures. The fishing season, formerly limited to March-November, is not presently restricted to a prescribed period of the year.

The Territory operates four fishing research vessels, two for pilchard study and two for spiny lobster study. In addition, the migration of pilchards is studied by tagging thousands annually. (United States Consulate, Cape Town, January 26, 1961.)



Spain

TUNA AND BONITO FISHERY TRENDS, 1960:

The 1960 bonito season (from May until early November) in Spain was reported to be steady and good, although the total catch may have been somewhat below that of 1959. Nevertheless, profits to fishermen and shipowners were believed to have been equal to 1959 profits, or higher, due to better prices, which ranged from 17.5 to 18 pesetas per kilo (about 13 U. S. cents a pound) as compared with 15 to 16 pesetas a kilo (11-12 cents a pound) in 1959.

Spain (Contd.):

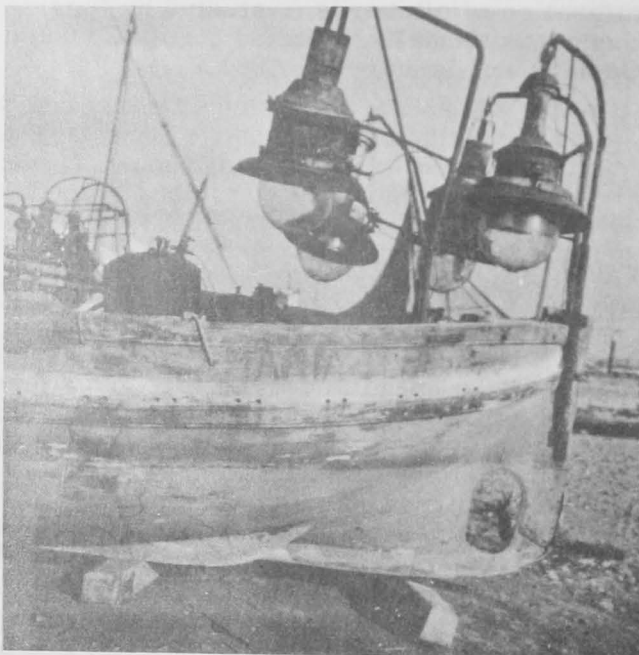
Sixteen vessels, mostly from Bermeo, in December 1960 were participating in the tuna-fishing season off the west coast of tropical Africa, and selling their catches to United States firms in Freetown, Sierra Leone. Contract prices reported were 8 and 8.5 pesetas per kilo (US\$118-128 a short ton) delivered whole in Freetown. In 1959 the fleet operating from Dakar caught 2,050 metric tons of tuna which was sold under contract for 9 pesetas per kilo (US\$136 a short ton), eviscerated, to a firm in Las Palmas, Canary Islands. (United States Consulate, Bilbao, January 10, 1961.)

Note: Values converted at rate of 60 pesetas equal US\$1.

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VIGO FISHERIES TRENDS, OCTOBER-DECEMBER 1960:

Fish Exchange: Landings at the Vigo Fish Exchange for the fourth quarter of 1960 amounted to 19,141 metric tons, an increase of 645 tons over the fourth quarter of 1959. The value of the catch, however, decreased from 191,821,000 pesetas (US\$3,197,000) in the fourth quarter of 1959 to 170,647,000 pesetas (US\$2,844,000) in the final quarter of 1960. The average price per kilo was 8.90 pesetas (6.7 U. S. cents a pound) for the last three months of 1960 and 10.37 pesetas per kilo (7.8 U. S. cents a pound) for the same period of 1959. Third quarter 1960 landings



Small lampara beach boat.

of 20,425 tons, valued at 221,342,972 pesetas (US\$3,689,000) were slightly higher than for fourth quarter, but the average price per kilo was 10.8 pesetas (8.2 U. S. cents a pound).

Table 1 - Vigo Landings and Average Ex-Vessel Prices for Selected Species, October-December 1959-60

Species	Oct.-Dec. 1960			Oct.-Dec. 1959		
	Qty.	Avg. Price		Qty.	Avg. Price	
	Metric Tons	Pesetas/Kilo	US\$/Lb.	Metric Tons	Pesetas/Kilo	US\$/Lb.
Sardines	7,026	4.67	3.5	11,186	3.86	2.9
Horse mackerel.	3,430	3.66	2.8	2,228	4.25	3.2
Small hake . .	2,434	24.00	18.1	2,418	24.84	18.8

Albacore landings of 3,351 tons during the third quarter of 1960 dropped seasonally to 14 tons during the fourth quarter. Promfret landings, which were good in the fourth quarter of 1959 with 1,757 tons, were down to 72 tons for the same period of 1960. Large hake landings were 125 tons, 118 tons, and 203 tons for fourth quarters of 1960 and 1959, and the third quarter of 1960, respectively.

Table 2 - Distribution of Landings at Vigo, Third and Fourth Quarters, 1960, and Fourth Quarter 1959

	Shipped Fresh to Domestic Markets	Canning	Other Processing (Smoking, Drying, Fish Meal, etc.)	Local Consumption
 (Metric Tons)			
1960:				
4th Qtr.	10,336	4,601	3,179	1,025
3rd Qtr.	10,078	5,085	3,963	1,299
1959:				
4th Qtr.	12,962	3,766	5,569	983

Fishery landings (preliminary statistics) at the Vigo Exchange in 1960 totaled 65,457 tons valued at 660,645,000 pesetas (US\$11,011,000), a drop of 13 percent in both quantity and value from the 1959 level of 75,136 tons valued at 759,836,000 pesetas (US\$12,664,000). The decrease was due to reduced landings of sardines, small hake, pomfret, and albacore during 1960.

Fish Canning and Processing: Canning activity in the last quarter of 1960 was down from the third quarter peak which marked the height of the albacore season. Sardines and various specialty products, such as mussels, clams, and squid, formed the bulk of the canning during the last quarter of 1960. Sardine landings during the period were made up for small fish, but the canners packed them with a view to low-priced exports.

Exports of Canned Fish: No figures as of the middle of January 1961 were available on export levels of canned fish from the northwest area of Spain for the fourth quarter or

Spain (Contd.):

for the year 1960. However, it is known that exports to the United States were far below the 1959 level because of the failure to meet Japanese competition in canned albacore. Exports to Switzerland and other countries are believed to have taken up some of the excess stocks and the industry has been active in trying to open new markets, particularly in the Far East for lower-priced products, such as the small sardine.

A strong call for cooperation among fish canners in the export field appeared in an editorial in the December issue of the trade journal Industrias Pesqueras. Pointing out that the real future of the industry lies in exports and not in expectations of a substantially increased domestic market, the editorial argues that the type of destructive competition which has characterized the domestic market must be avoided in the export field. Instead, all exporters of canned fish should join in a firm accord as to prices and quality and for the development of a joint advertising campaign.

The article cites the example that Spain, which once dominated the import market of canned fish in Germany, has lost that market to the Portuguese, who have been successful in making their products known. Calling unity the order of the day in international trade, the editorial concludes that in addition to certain measures which the industry needs such as tariff protection, export premiums, and raw materials at international prices, cooperation within the industry to promote itself in the export field is an absolute necessity.

Canned fish sales in the domestic market were reported to be 30 to 50 percent below normal, attributable to the relatively high prices for Spanish canned fish and reduced consumer income. Recent changes in State taxes on canned fish (elimination of the so-called Costs Tax and the Stamp Tax effective January 1, 1961) will result in some savings to the canners, but at the moment it is not expected that these changes will result in lower prices, as the canners claim to have been making sales at or near cost. Both of the taxes to be eliminated as of January 1, 1961, were subject to agreements between the canning industry and the Ministry of Finance. The collective costs tax, theoretically $5\frac{1}{2}$ percent of the value of do-

mestic sales, agreed to between the Finance Ministry and industry representatives, was 43,746,762 pesetas (US\$729,112) during 1959. It has been estimated that this figure represents an effective tax of approximately 3 percent. The Stamp Tax was 5 million pesetas (US\$83,333) for 1960. These reductions will have no direct effect on exports since the taxes were levied only on domestic sales. (United States Consulate, Vigo, January 18, 1961.)



Surinam

SHRIMP INDUSTRY:

A United States company has exclusive rights for the export of shrimp from Surinam. Information furnished by this company and the Surinam Fisheries Division, Department of Agriculture, Animal Husbandry, and Fisheries indicates the following yearly landings of heads-on shrimp: 1960 (estimated), pink shrimp, 900,000 pounds; 1959, pink shrimp, 570,000 pounds and sea bob, 1,650,000 pounds; 1958, pink shrimp, 225,000 pounds and sea bob, 1,850,000 pounds; 1957, pink shrimp, 96,000 pounds and sea bob, 715,000 pounds; and 1956, sea bob, 1,600,000 pounds.

Two species, pink shrimp (Penaeus brazilensis) and sea bob (Xyphopenaeus kroyeric), comprise the bulk of the shrimp caught off Surinam. Since trawling operations for the larger pink shrimp began in October 1958, production of the small sea bob has declined. The sea bob has never figured largely in the export market, being principally absorbed locally. Accurate breakdown of the figures into size groups are not available but it is estimated that the present catch will run heads-off 30 percent 15 count and under per pound, 48 percent 16-20 count per pound, 20 percent 21-25 count per pound, and 2 percent smaller shrimp.

The number of vessels fishing has varied from 3 to 12. Presently there are only 3 vessels fishing out of Paramaribo. The trawlers operating in the area range from 68 to 85 feet and use marine Diesel engines rated at 175 to 300 horsepower. There is currently no construction program for vessels.

The three boats now operating in Surinam are United States-owned, as have been most of the trawlers which have been here.

Surinam (Contd.):

According to the Fisheries Division, export prices for heads-off shrimp have been as follows: 1958, 150 count per pound, average 55 U. S. cents a pound and 10-25 count per pound, average 90 cents a pound; 1959, 10-25 count per pound, average 80 cents a pound; and 1960, 10-30 count per pound, average 65 cents a pound.

Virtually all shrimp exported go to the United States. The figures on exports available from the Fisheries Division list annual values as follows: 1956, 98,000 pounds, frozen, peeled, US\$70,000; 1957, 44,000 pounds, frozen, heads-off, \$30,000; 1958, 110,000 pounds, frozen, peeled, heads-off, \$75,000; 1959, 290,000 pounds, frozen, heads-off, \$260,000; and 1960, 425,000 pounds, frozen, heads-off, \$260,000 (estimated).

There are no export controls or subsidies, but the Surinam government levies a token export tax of one percent.

Workers in the processing plant receive 45 to 60 Surinam cents per hour depending upon the job and the worker's degree of skill. This is equivalent to about 25 to 32 U. S. cents per hour.

The captain of the vessel is paid \$300 per ton of shrimp. From this amount he pays for groceries for the crew and the crew's wages. The average rate for Surinam crewmen is Sf. 40.00 per ton or about US\$21.40 per ton per crewman. The captain can expect to make US\$150 to \$175 per ton after expenses, and landings run from 4 to 6 tons per month.

The Fisheries Division believes that the industry could be expanded to a total catch of 2.2 million pounds of sea bob and 2 million pounds of pink shrimp. The large shrimp now go almost exclusively to the United States and presumably would continue to be so exported. The small sea bob now are usually cooked and dried for local consumption. The Fisheries Division is now attempting to determine the feasibility of canning the small shrimp for export to various countries, including the United States. (United States Consulate, Paramaribo, January 31, 1961.)



Sweden

INTERNATIONAL FISHERIES EXPOSITION
PLANNED FOR NOVEMBER 1961:

Plans are being made for an international fisheries exposition to be held on the Svenska Massan fair grounds (Swedish Industries Fair) in Goteborg, November 9-19, 1961.

Invitations will be extended to boat builders, engine- and gear manufacturers, as well as the canning and freezing industries. Swedish west coast commercial fishermen will be represented through their trade and economic organizations.

The increasing significance of the Swedish fishing industry and the large interest shown at the expositions in Copenhagen, Denmark, and Bergen, Norway, has made it possible to realize plans for such an exhibition in Goteborg. (United States Consulate, Goteborg, January 7, 1961.)

* * * * *

MARITIME EXPOSITION
INCLUDES FISHERIES:

A Maritime Exposition with a fisheries section will be held in Halsingborg, Sweden, August 11-27, 1961, according to Fiskaren (January 18, 1961), a Norwegian fishery trade periodical. Fishing boats, fishing gear, and special machines for the processing of fishery products will be exhibited.

* * * * *

TRAWLERS DELIVERED TO WEST COAST
FISHING FLEET IN 1960:

A total of 32 new trawlers of more than 70 feet were delivered in 1960 to Swedish west coast fishermen, as against 23 trawlers in 1959. The 1960 deliveries comprised 14 steel trawlers of which 10 were built in Sweden, 3 in Holland, and 1 in Norway; and 18 wooden trawlers, 10 of which were built in Sweden and 8 in Norway.

The largest vessel delivered in 1960 was a 94-foot steel trawler. The size of the steel trawlers varied from 94 to 83 feet. The size of the wood trawlers varied from 84 to 72 feet.

At the beginning of 1961 there were 41 steel trawlers on order, of which 8 will be built in Sweden, 6 in Holland, 11 in East Germany, and 16 in Norway. The number of

Sweden (Contd.):

wooden trawlers on order through agents totaled 21, of which 8 will be built at Swedish yards and 13 in Norway. In addition, fishing teams have placed a few orders for wooden trawlers directly with the yards.

The largest trawlers on order at present are the 11 steel trawlers on order with an East German yard with a length of 105 feet, but inquiries have been made for larger trawlers.

The largest motor installed in the trawlers delivered in 1960 totaled 595 hp. The horsepower rating on the trawlers on order will increase, however, and at least 15 trawlers will have engines of more than 600 hp, and one trawler will have an 800-hp. engine installed. (United States Consulate, Goteborg, February 1, 1961.)

TRAWLERS REPORT LARGE SOVIET FISHING FLEET OFF NORWEGIAN COAST:

A large Soviet fishing fleet consisting of 6,000 vessels was fishing for large herring on the banks off the southwestern Norwegian coast at Egersund early in February. Consequently, a large fishing area usually frequented by Swedish fishermen was for some days closed to them, according to reports from fishermen returning to Goteborg, Sweden, from the North Sea.

The Swedish fishermen say this resulted in extra long trips to reach fishing grounds. One case is cited of a Swedish west coast fisherman who was forced to travel at full speed for more than two hours before he was far enough away from the last Soviet vessel to set his trawl.

The Soviet fishermen were not using trawls, but fished with drift-nets. The cotton drift gill-nets are 108 feet long and each vessel has at least 100 nets. Catches were delivered to a mothership at the fishing site. (United States Consulate, Goteborg, February 7, 1961.)



Taiwan

FISHERIES LANDINGS IN 1960:

The 1960 fishery landings in Taiwan of 259,140 metric tons again surpassed the previous record in 1959. The most significant increase took place in the deep-sea fisheries.

Taiwan's Fishery Landings, 1957-60				
Type of Fishery	1960	1959	1958	1957
	(Metric Tons)			
Deep-seas fisheries	85,310	76,411	61,160	52,223
Inshore fisheries	94,856	91,240	81,720	71,552
Coastal fisheries	30,044	32,183	38,267	38,468
Fish culture	49,030	46,493	48,530	45,878
Total	259,140	246,327	229,677	208,121

The decline in landings from coastal fisheries is due to a drop in the number of boats without power, which are included in this category. Fish culture production showed a slight increase in spite of the floods caused by the August 1 typhoon, which damaged many fish ponds. The target for 1960 was 255,000 metric tons and that for 1961 has been set at 270,000 tons.

TWO LARGE TUNA VESSELS UNDER CONSTRUCTION:

The construction of two 550-ton tuna longliners is taking place in a Japanese shipyard. The vessels will be used for tuna fishing in the Indian and Atlantic Oceans.

CHEMICAL FERTILIZERS USED IN MILKFISH PONDS:

Over 3,000 tons of ammonium sulphate and calcium superphosphate were used in milkfish ponds in 1960. Chemical fertilizers have become increasingly popular with fish farmers in Taiwan due to their lower cost and more rapid action as compared with organic fertilizers. It is estimated that about 5,000 metric tons will be required for 1961.

--T. P. Chen, Chief, Fisheries Division,
Joint Commission on Rural
Reconstruction, Taipei, Taiwan

Note: Also see Commercial Fisheries Review, May 1960 p. 65.



Union of South Africa

EX-VESSEL FISH PRICES FOR 1961 LOWER:

As of January 1, 1961, the price paid by fish canners, fish meal and oil producers in

Union of South Africa (Contd.):

the Union of South Africa to private boat owners for each ton of raw fish (pilchard, mass-banker, and mackerel) delivered to the factories is £3 19s. 6d. (US\$11.13 a ton). This is a drop of 14 percent from £4 12s. 6d. (\$12.95), the previous official basic price to private boat owners. This price had, however, already been lowered temporarily by 12½ percent as of June 1, 1960, with an understanding that prices for 1961 would be reviewed later in the year.

The review of the price situation was made accordingly in October 1960 by representatives of the canners, meal and oil producers on the one side and representatives of the private boat owners on the other. They met under the chairmanship of the Commercial Adviser to the Department of Commerce and Industries of the Union Government. It was decided that the official price must go still lower and so the price of £3 19s. 6d. was set for this year.

At these meetings a single wage scale for the skippers and crews of both company-owned and privately-owned fishing boats was also established. The wages, also based on the tons of raw fish delivered, are: skipper 10 shillings (\$1.40) per ton; helmsman 4s. 6d. (\$0.63) per ton; driver 4s. 6d. (\$0.63) per ton; and crewman 3s. 8d. (\$0.51) per ton.

As each boat carries seven crewmen, the wage cost per ton is £2 4s. 8d. (\$6.25), leaving the owner £1 14s. 10d. (\$4.88) to cover fuel, insurance, maintenance, depreciation, financing, and a return on his investment. (United States Consulate, Cape Town, February 2, 1961.)

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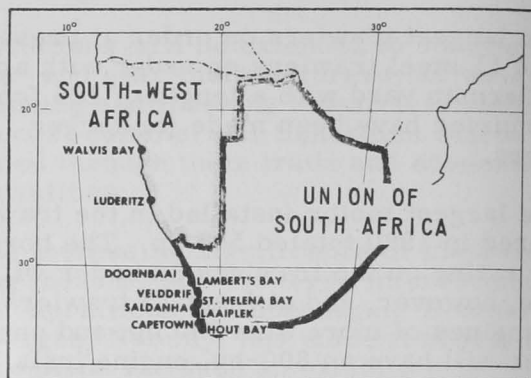
FISH MEAL AND SOLUBLES PRICES, DECEMBER 1960:

Fish meal and solubles prices reported for the month of December by the South African Fish Meal Producers' Association to the Food and Agriculture Organization:

Domestic Fish Meal Price: £38 (US\$106.40) a short ton, free aboard freight car (consignee pays freight). This price was fixed in 1956.

Export Fish Meal Prices: To the United Kingdom: £44/8s.-£33/17s./4d. (\$124.32-94.83) a long ton or about \$111.00-84.67 a

short ton, c.i.f. United Kingdom ports. To West Germany and Netherlands: £39-£37/7s./6d. (\$109.20-104.65) a long ton or about \$97.50-93.44 a short ton, c.i.f. West European ports. To the United States: \$119.50-86.00 a short ton f.o.b. freight cars United States port of entry.



Domestic Fish Solubles Prices: £38 (\$106.40) a short ton, free aboard freight cars.

Export Fish Solubles Price: To West Germany and the Netherlands: £43/6s. (\$121.24 a metric ton or about \$110 a short ton), c.i.f. West European ports.

Prices are for fish meal shipments made in December 1960 and include prices agreed upon some time preceding the shipment.

One spot price obtained directly was for shipments made by a South African subsidiary of a United States firm--\$86.00 a long ton (\$76.79 a short ton), f.o.b. freight cars, United States port of entry.

The protein content of South African fish meal ranges between 60 and 70 percent and the average pepsin digestibility is 94 percent, according to the South African Fishing Research Institute. (United States Consulate in Cape Town, January 23, 1961.)



U. S. S. R.

ATLAS OF NORWEGIAN AND GREENLAND SEAS TO BE PUBLISHED IN 1961:

The Soviet Union's Polar Institute for Fishery and Oceanography is, together with some other Soviet institutes, working out a commercial and industrial atlas covering the Norwegian Sea and the Greenland Sea.

U. S. S. R. (Contd.):

The new atlas will show, in its different sections, the seas' importance for commerce and industry, fishery statistics, the biology of the herring, the relative fluctuations in the concentration of fish, etc.

The new book, which is expected to be a good guide to those engaged in fishing in these seas, will contain over 150 different maps. More than a third of these maps are being prepared by the Polar Institute. They will be special maps showing the sea bottom, streams, the distribution of hydrochemical substances, existing kinds of plankton and their characteristics, spawning grounds, the local occurrence of the herring, results of fish markings, etc. The atlas will be published in 1961, the United States Embassy in Stockholm reported on January 20, 1961.

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FOUR MORE FISH FACTORYSHIPS ORDERED FROM DENMARK:

The U. S. S. R. has ordered four more fish factoryships from a shipyard in Denmark, according to Fiskaren (January 25, 1961), a Norwegian fishery trade periodical. This brings the number of special factoryships delivered by that same Danish yard to the Soviet Union to 25. The new order for the four vessels is valued at over 30 million Danish kroner (US\$4.4 million). The factoryships will be 2,600 tons each. Each will serve as a mothership for a fleet of Russian trawlers whose catch will be handled by the specialized factoryship. Equipped for freezing, filleting, packaging, and the manufacture of fish meal and fish oil, each vessel will carry a crew of 102.



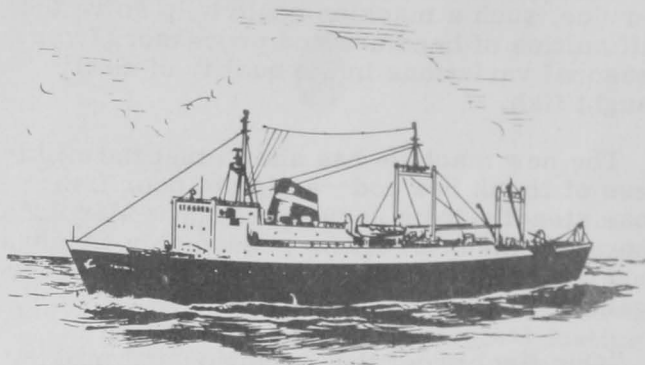
United Kingdom

EXPERIMENT ON TRANSFER OF FISH AT SEA FROM TRAWLER TO FACTORYSHIP:

The first practical experiments in the transfer of fish at sea from a trawler to a factoryship are focusing the fishing world's attention on two British ships on the Grand Banks off Newfoundland.

The catch of the trawler Ross Hunter from Grimsby is transferred at sea to the factoryship Fairtry II from Leith, and the

factoryship processes the catches of the trawler and her own. The two ships will be at sea some 80 to 90 days.



The Fairtry II, British factoryship trawler.

The 171-foot, 550-gross-ton Ross Hunter with her 20 experienced deep-water fishermen is on the longest fishing voyage ever made by a Grimsby trawler. All of them volunteered, under a special remuneration agreement.

The trawler does not carry sufficient fuel oil to permit her to work continuously for the three months, so she will be calling when necessity arises into St. John's, Newfoundland, to obtain fuel oil, ice, water, and other essentials.

A supply of special detachable cod ends has been put aboard the trawler to facilitate transferring the catch to the 2,857-ton Fairtry II for processing and freezing.

New methods will be tried in the investigation into the easiest and most efficient system of transfer of fish at sea.

Up to now the only experiments in the transfer of fish from one ship to another at sea were carried out in 1960 by two other British vessels. Unlike the ambitious refinements of the present research, the system relied on special net containers, resembling gigantic sausages. (The Fishing News, January 13, 1961.)

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FISH QUALITY MEASURED WITH PHOTOELECTRIC CELL:

The Torry Research Station, Aberdeen, Scotland, has devised a machine which will measure very quickly the condition of cod, and possibly other white fish, by measuring the milkiness of the meat.

United Kingdom (Contd.):

According to Torry's scientists, in a broadcast over the BBC's Scottish Home Service, such a machine could help solve the difficulties of handlers and processors from seasonal variations in the quality of newly-caught fish.

The new machine has shown that the milkiness of North Sea cod--a sign of poor fish--rose steadily from January to about May each year, and then fell again, presumably as more food became available and condition improved again.

"Our final proof that condition and milkiness were related was this. We found that we could make the fillets go milky whenever we liked simply by starving live cod which were living in an aquarium," the report indicated.

As the condition of the fish changes, so does the chemical composition. The scientists in carrying out chemical analyses find that the results are rarely the same from one month to the next, nor are they the same in fish from different fishing grounds.

The natural variations, according to the report, are caused by spawning, and also by a lack of sufficient food at certain times of the year. When the fish are spent and starving, the meat becomes more watery and less suitable for processing. They can't be made into satisfactory smoked products, and they are soft and flabby to the touch.

The amount of fat or water in the meat gives a good guide to the condition of the fish, but these measurements usually take a long time.

One way to recognize a poor fish is by the look of the fillets which are a dense white instead of being almost transparent, as they are in a well-fed fish.

In the new method of measuring this condition, a large flake is cut from a fillet and placed in the machine developed by the Torry Laboratory. A light shines on it, and the amount of light which gets through the sample is measured with a photoelectric cell. This is more sensitive than the human eye, so it can detect much smaller changes in milkiness.

With this method the Torry scientists now hope to study the condition of cod at different fishing grounds, and the effect of age and sex on their condition.

"By doing this we should be able to sort out some of the complicated factors that go to make up quality, and to find out what decides whether or not a particular fish will make a good or bad product," the report reveals. (The Fishing News, February 10, 1961.)

* * * * *

FISH MEAL PRICES, FEBRUARY 1961:

Fish meal prices reported by a British trade periodical between November 19, 1960, and February 4, 1961, were as follows:

Type of Fish Meal	Protein Content	Date Quoted	L/s per Long Ton	US\$1	
				Long Tqn	Short Ton
S. Africa (white fish) . . .	65	11/19/60	48/15	136,50	121,87
Peru (branded) . . .	65	2/4/61	36/10	102,80	93,26
Peru (average quality)	65	2/4/61	33/0	92,40	83,83
Iceland (white cod)	70-73	11/26/60	42/0-48/16	117,60-136,64	105,00-122,00
Iceland (herring)	70	2/4/61	43/15	122,50	109,37
Denmark (herring)	73	2/4/61	47/9	132,86	120,53
Domestic (white fish)	66	2/4/61 ^{1/}	56/10	158,20	141,25
Domestic (herring) ^{2/}	68-71	2/4/61	50/0	140,00	125,00

^{1/} Effective February 1, 1961; in bags.
^{2/} In bags ex-warehouse.
 Note: Imported fish-meal prices are c.i.f. current shipments, and domestic-meal prices (net cash) are ex-plant, in 6 long-ton lots and bagged, unless otherwise reported.

(United States Embassy, London, February 9, 1961.)

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STUDY ON IMPORTED CANNED SALMON:

The British Consumers' Association Ltd. in the January 1961 issue of their official publication Which?, published an analysis of canned salmon available in the United Kingdom. Although the survey was not comprehensive, only 22 of some 70-odd brands being included, most popular brands were included as well as particularly expensive and particularly cheap ones.

Conclusions of the survey of particular interest to the United States industry include

United Kingdom (Contd.):

the following: (1) A United States brand was found to be of the highest quality of all the brands tested; it was also the most expensive. (2) A half-dozen of the 22 brands tested included cans from more than one country. In an effort to analyze the relative quality produced by each country, cans from these brands were regrouped according to country of origin rather than company. Tests in this instance indicated that United States brands had the best flavor, followed by Canadian, Japanese, and Russian in that order. United States canned salmon also had better character and color than that from the other three countries. (3) In contrast, the Consumers' Association quantitative tests indicated that Russian cans weighed most, with Japanese cans a close second. Canadian cans weighed least, but United States cans were very close to the Canadian. On the average there was about 1-ounce difference per $7\frac{3}{4}$ -ounce can between the Russian and the Canadian average weight. (4) In terms of equal character, flavor, color, consistency, weight, and price, the Consumers' Association found three Japanese brands to be the best buy in the red, medium, and pink packs.

Canned salmon is normally available in three sizes--quarter, half, and one pound; the half-pound size is the most popular and all tests were on this size.

Almost all canned salmon is imported from four countries: Canada, Japan, United States, and U.S.S.R. The salmon is caught in northern Pacific waters. It is usually sold under the labels red (or sockeye), medium (coho or silver), pink, and chum (keta). Red and pink salmon are most widely sold.

The cans tested from Canada, the United States, and U. S. S. R. stated the country of origin on the label. Those from Japan were labeled "Japan" or, more frequently "foreign." Cans from Canada had the word "Canada" embossed in the metal, and most cans, from all four countries, were embossed with a code to indicate the type of salmon, the canner, and the date of canning.

The study found, from the embossed code, that cans of different brands were sometimes products of the same cannery; and that cans of the same brand were often products of a number of canneries, not necessarily all in one country.

In all cans the proportion of skin and bones was fairly constant (about $\frac{1}{2}$ ounce), while the liquid drained off was about $1\frac{1}{2}$ ounces. (United States Embassy, London, February 15, 1961.)



Venezuela

FISHERIES TRENDS, FALL 1960:

Routine sampling of Venezuelan commercial sardine catches for age, growth, and spawning studies were being continued in the fall of 1960 by the Marine Biological Institute under the direction of a Food and Agriculture Organization biologist, and a study of the early life history of the species was progressing with the building up of a progressive series of the embryonic stages.



Boat for transporting sardines in Venezuela.

Salinity data from fixed oceanographic stations over a period of 10 months indicate that the salinity of the water column has remained essentially the same, the values ranging from 36.56 percent to 36.89 percent at the surface, and from 36.64 percent to 36.76 percent at about 33 fathoms.

The Venezuelan Banco Agricola y Pecuario will give a loan of 1.5 million bolivars (about US\$500,000) to the fishing cooperative of Zulia and a similar credit will be given to a fisherman's cooperative being organized in eastern Venezuela. The principal objective of these loans is to help the small fishermen in acquiring nets and other fishing equipment and housing and to ultimately reduce fish prices to consumers.

Venezuela (Contd.):

It is also hoped that through this assistance the small fishermen will be able to compete with the trawlers supplying the larger com-

mercial fishing and canning companies (which employ about 3,000 people) with their raw material. (West Indies Fisheries Bulletin, Sept.-Oct. 1960, No. 5.)

CORRECTION

In the article entitled "Physical and Chemical Properties of Shrimp Drip as Indices of Quality," which appeared in the January 1961 issue of Commercial Fisheries Review, on p. 12, in each of the graphs shown in figure 3, the following legends were omitted:

Top graph:

Lot 1 - iced storage

pH —————

Organoleptic score ————○———○

Middle graph:

Lot 1 - iced and frozen

pH —————

Organoleptic score ————○———○

Bottom graph:

Lot 3 - iced storage

pH —————

Organoleptic score ————○———○

The corrected figure appears in the reprint of the article Separate No. 610.