ternational

MEAL

ODUCTION AND EXPORTS FOR LECTED COUNTRIES, UARY-FEBRUARY 1965:

Member countries of the Fish Meal Exers' Organization (FEO) account for about ercent of world exports of fish meal. The O countries are Chile, Angola, Iceland, rway, Peru, and South Africa/South-West ica.

Table 1 - Exports of Fish Meal by Member Countries of the FEO, Jan.-Feb. 1965

Country	February		Jan.-Feb.	
	1965	1964	1965	1964
	. . . .(1,000 Metric Tons). . . .			
le	6.2	13.9	15.2	25.7
ola	1/	2.9	1/	7.7
land	6.0	8.5	15.6	20.0
way	12.5	13.5	25.7	40.7
ru	130.2	100.7	295.1	202.6
Africa (including -W. Africa)	4.6	11.2	15.9	24.7
Total	159.5	150.7	367.5	321.4

ble 2 - Production of Fish Meal by Member Countries of the FEO, Jan.-Feb. 1965

Country	February		Jan.-Feb.	
	1965	1964	1965	1964
	. . . .(1,000 Metric Tons). . . .			
e	10.9	21.3	23.7	43.1
ola	1/	4.0	1/	9.6
and	5.0	6.5	9.2	12.3
way	18.7	6.4	24.6	15.0
u	122.3	125.2	316.4	320.8
frica (including W. Africa)	22.6	16.4	21.3	30.4
Total	179.5	179.8	395.2	431.2

not available.

eru accounted for about 80 percent of the 500 metric tons of fish meal exported by O countries in January-February 1965.

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WORLD PRODUCTION, FEBRUARY 1965:

World fish meal production in February 1965 was down about 15 percent from the previous month due in large part to a labor dispute in Peru which reduced output. The decline was partly offset by higher production in Norway, Canada, Denmark, and South Africa.

World fish meal production in January-February 1965 was down slightly from that in the first 2 months of 1964. Output in early 1965 was down noticeably in Chile, but production was up in Norway, Canada, and Denmark.

World Fish Meal Production by Countries, February 1965 with Comparisons

Country	Feb.		Jan.-Feb.	
	1965	1964	1965	1964
	. . . . .(Metric Tons).			
Canada	9,233	3,368	14,674	6,773
Denmark	8,929	2,408	14,816	11,207
France	1,100	1,100	2,200	2,200
German Fed. Rep.	5,543	6,390	10,178	13,147
Netherlands	363	600	638	1,400
Spain	1/	1/	1/	1/
Sweden	1,067	415	1,657	1,485
United Kingdom	7,777	6,954	15,036	14,690
United States	1,994	1,663	4,399	3,382
Angola	1/	4,036	1/	9,584
Iceland	4,967	6,521	9,167	12,257
Norway	18,714	6,410	24,608	15,017
Peru	122,285	125,216	316,389	320,767
So. Afr. (including S.-W. Afr.)	22,712	16,947	31,456	31,249
Belgium	375	375	750	750
Chile	10,890	21,270	23,745	43,118
Morocco	-	590	-	860
Total	215,949	204,263	469,713	487,866

1/Data not available.
Note: Japan does not report fish meal production to the International Association of Fish Meal Manufacturers at present.

Most of the principal countries producing fish meal submit data to the International Association of Fish Meal Manufacturers monthly (see table).

International (Contd.):

FOOD AND AGRICULTURE ORGANIZATION

8TH ANNUAL SESSION OF THE GENERAL FISHERIES COUNCIL FOR THE MEDITERRANEAN:

The 8th Annual Session of the General Fisheries Council for the Mediterranean (GFCM) was held in Rome, May 10-15, 1965. Some 60 fisheries experts from 14 Mediterranean countries participated.

Major items on the agenda included the possibility of establishing a regional United Nations Special Fund project for the further development of the Mediterranean's fisheries. Another important topic was a synopsis, prepared jointly with the International Commission for the Scientific Exploration of the Mediterranean Sea, on the oceanography of the Mediterranean, and the launching of a possible Mediterranean-wide sardine-tagging program. The sardine is of significant commercial importance to the fishing nations of the Mediterranean. Tagging is a basic tool for determining the growth, distribution, migration habits, mortality rate, stock, and population size of that species.

The GFCM has already sponsored a good deal of work on sardine-tagging, including a seminar held in 1964, in Split, Yugoslavia. If a Mediterranean-wide sardine-tagging program were launched, it would be the first of its kind carried out in the region.

About 55 technical and 25 working papers, covering all phases of present Mediterranean fishing problems, were presented during the Session. All of the papers were discussed in the Council's five technical committees.

Member nations of GFCM are France, Greece, Israel, Italy, Lebanon, Libya, Monaco, Morocco, Spain, Tunisia, Turkey, the United Arab Republic, the United Kingdom, and Yugoslavia. (Food and Agriculture Organization, Rome, May 4, 1965).

Note: See Commercial Fisheries Review, January 1965 p. 56.

* * * * *

PLAN FOR FUTURE DEVELOPMENT OF MEDITERRANEAN FISHERIES URGED:

Views on the fertility of the Mediterranean Sea are varied and often contradictory, said the Director of the Fisheries Division, Food and Agriculture Organization (FAO), at the opening session of the General Fisheries Council of the Mediterranean, held in Rome, May 10-15, 1965.

"The Mediterranean is for some people a very poor sea which cannot support a rewarding fishery," he added as he called on the Mediterranean nations to draw up a general plan for the future development of that Sea's fishing resources. He pointed out that some stocks have been overexploited and that they are in a very advanced overfished state. On the other hand, he also pointed out that some optimistic views have been expressed on the existence of other fish stocks that can support much more substantial fisheries than they do now.

According to the FAO Fisheries Division director, the GFCM can play a central part in determining just what the Mediterranean's fishing potential really is. Immediate needs are the collection and analysis of existing oceanographic information, improved knowledge of the kinds and abundance of fish, more efficient fishing and processing methods, and better management.

The task of developing the Mediterranean fisheries is too big to be undertaken by individual nations. Any successful development would have to be carried out under a unified plan, developed and executed through the GFCM. The best means of carrying out such a general development plan would probably be through an integrated series of fisheries projects designed to meet the needs of individual countries as well as the Mediterranean generally.

The Fisheries Division chief told delegates at the opening session that aid in financing a

International (Contd.):

general program could be sought through the United Nations Special Fund, the United Nations Expanded Program of Technical Assistance, the World Bank, or through bilateral aid programs integrated into an overall plan, and that the FAO would be willing to aid the GFCM in seeking such assistance.

At the opening meeting, Spain's Director General of Fisheries and Chairman of the GFCM's 8th Annual Session said he had no doubt that, through modern scientific methods, Mediterranean fishing could be developed far beyond its present productivity. He added, "There are still many unharvested areas of our sea. What we need is more research and experimental fishing expeditions to determine the size of the marine resources and their sustainable yield. This can only be accomplished through unity and cooperation." (Food and Agriculture Organization, Rome, May 10, 1965.)

* * * * *

EIGHTH REGIONAL CONFERENCE FOR LATIN AMERICA:

The Food and Agriculture Organization (FAO) held its Eighth Regional Conference for Latin America in Vina del Mar, Chile, March 13-19, 1965.

The Conference passed five resolutions of importance to Latin American fisheries. (These conferences serve, among other things, as forums wherein the countries of an FAO Region may exchange information and consult on common problems.) The five resolutions on fisheries favored:

1. Establishment of a regional freshwater fisheries institute in Bolivia.

2. More work by FAO to find a way of processing fish meal in a form suitable for human consumption.

3. Preparation of an international convention for the rational exploitation of Atlantic tuna.

4. Establishment of a South Pacific regional fisheries advisory commission.

5. More attention to the discovery and development of fishery resources, assessment of stocks, research on fishery biology, more training, improved processing, stronger fishery administrative services, and strengthening of international cooperation.

In connection with the last resolution, the Conference supported the FAO Director-General's proposal to strengthen FAO's role in fisheries, and establish an FAO Fisheries Department.

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SEATTLE MAN APPOINTED CHAIRMAN OF 3RD TECHNICAL MEETING OF FISHING BOATS TO BE HELD IN SWEDEN:

George C. Nickum of Seattle, Wash., was named Chairman of the 3rd International Technical Meeting on Fishing Boats which will be held at Goteborg, Sweden, October 23-29, 1965. The announcement was made by the Fisheries Division, Food and Agriculture Organization (FAO), which is sponsoring the meeting jointly with the Swedish Government.

Nickum is Managing Director and President of one of the three largest firms of consulting naval architects in the United States. He is a member of FAO's Panel of Fisheries Experts; the U. S. Society of Naval Architects and Marine Engineers, and former chairman of its Pacific Coast Section; the British Royal Institution of Naval Architects; and a member of the British Northeast Coast Institution of Engineers and Shipbuilders.

The chief of FAO's Fishing Boat Section and Secretary for the forthcoming Goteborg meeting says Nickum "has been responsible for a wide variety of ship designs, from amphibians to floating drydocks, from hydrofoils to destroyer escorts, from ferries to fish factoryships, and from oceanographic vessels to offshore oil rigs, not to mention fishing vessels of many classes."

The main theme of the Goteborg meeting will be the needs of developing countries for small fishing craft--boats under 100 gross tons--especially adaptable for fishing their own national waters. (Food and Agriculture Organization, Rome.)

Note: See Commercial Fisheries Review, May 1965 p. 50.

LAW OF THE SEA

CERTAIN INTERNATIONAL CONVENTIONS RATIFIED BY FINLAND:

On February 16, 1965, Finland deposited her ratifications of the four Conventions formu-

International (Contd.):

lated by the 1958 United Nations Conference on the Law of the Sea. Those Conventions are the (1) Convention on the Territorial Sea and the Contiguous Zone; (2) Convention on the High Seas; (3) Convention on the Continental Shelf; and (4) Convention on Fishing and Conservation of the Living Resources of the High Seas. The first three of those Conventions have entered into force, and the latter has at least 18 of the 22 ratifications needed to enter into force.

Note: See Commercial Fisheries Review, May 1965 p. 55; Mar. 1965 p. 83; Jan. 1965 p. 59; Dec. 1964 p. 39; Nov. 1964 p. 70; Oct. 1964 p. 49; June 1961 p. 90; May 1960 p. 40.

OCEANOGRAPHY

INTERNATIONAL CONFERENCE ON TROPICAL OCEANOGRAPHY:

An International Conference on Tropical Oceanography will be held at Miami Beach, Fla., November 18-24, 1965. The meetings are sponsored by the Institute of Marine Science, University of Miami, and will coincide with the Institute's 21st birthday and the formal dedication of its entire Virginia Key campus. It is expected that the new marine laboratory of the U. S. Bureau of Commercial Fisheries, at an adjacent site on Virginia Key, will also be completed by that time.

The International Conference will reflect the increased interest in tropical oceanic areas. Research in those areas has been intensified during the past few years. Some of the papers to be presented will deal with scientific results of the International Indian Ocean Expedition (IIOE) and the International Cooperative Investigations of the Tropical Atlantic (ICITA), and will constitute important contributions to knowledge of the sea. Ten symposia to be held at the conference will deal with circulation, carbonate, ecology, tectonics, deep-sea biology, zoogeography, behavior, nutrient cycles, economics, and high-sea fisheries.

The meetings will be held in cooperation with the Gulf and Caribbean Fisheries Institute (Nov. 15-19) and the International Game Fish Association (November 12 and 13). Delegates from all over the world are expected to attend the conference. (News of Institute of Marine Science, Miami, Fla., March 24, 1965.)

RADIATION PRESERVATION

EUROPEAN STUDIES OF RADIATION PRESERVATION OF FISHERY PRODUCTS:

Following is a report from Food Irradiation, July-December 1964, on certain European studies concerning fishery products:

France: The varied factors affecting the shelf life of fish after irradiation are being studied. Irradiation preservation of whole fish and gutted fish as well as fish fillets is being investigated. The influence of various packing methods on irradiation procedures is also being studied.

West Germany: The German Federal Government plans to establish a research center at Karlsruhe to study food irradiation. In the meantime, a number of irradiation study projects are being conducted with available facilities. Work is being done on dosimetry problems as well as on the possibility of sensitization of micro-organisms. Other studies are aimed at finding ways of determining whether or not a product has been irradiated. One indicator found by German scientists is the surface changes in plastic coverings for prepacked foods which have been irradiated.

The Battelle Institute of Germany is studying ways to extend the shelf life of vinegar-pickled herring by substituting irradiation for preservatives. The first part of the project, which was begun in September 1963, has been devoted to microbiological and analytical investigations of the influences of irradiation and of storage. Wholesomeness and feasibility studies will be made in the second phase of the project.

Italy: An irradiation study of fresh and frozen fishery products in demand on the Italian market is being carried out jointly by the Perugia Radiobiological Center and the Pescara Veterinary Institute for Hygienic Control of Fish Products. Under this program, shrimp, cod, lemon sole, and other species are treated with an irradiation of 0.3 Mrad and then tested for: (1) bacteria which develop at the temperature of melting ice and at room temperature, (2) volatile amines and peroxides, and (3) flavor, odor and appearance.

Italian studies are also being carried on on irradiation control of salmonella and ot

International (Contd.):

bteria in such animal-feeding stuffs as fish
al. Besides bacteriological tests, chemi-
tests are applied to irradiated meals to
ermine if changes have taken place in their
no acids and "protein relative value."

Netherlands: Irradiation of fish meal to
inate salmonella is being studied by the
O Institute.

Norway: Irradiation research in Norway
imited by a lack of facilities, but there is
owing interest in the possibility of irradi-
preservation of foods, particularly fish-
products.

In the United States, the U. S. Bureau of Commercial
eries is operating an irradiation facility at Gloucester, Mass.,
an agreement with the Atomic Energy Commission to in-
gate the pasteurization of fishery products. For additional
nation on United States studies, see Commercial Fisheries
ew, Dec. 1964 p. 57 and Nov. 1964 p. 54.

WING

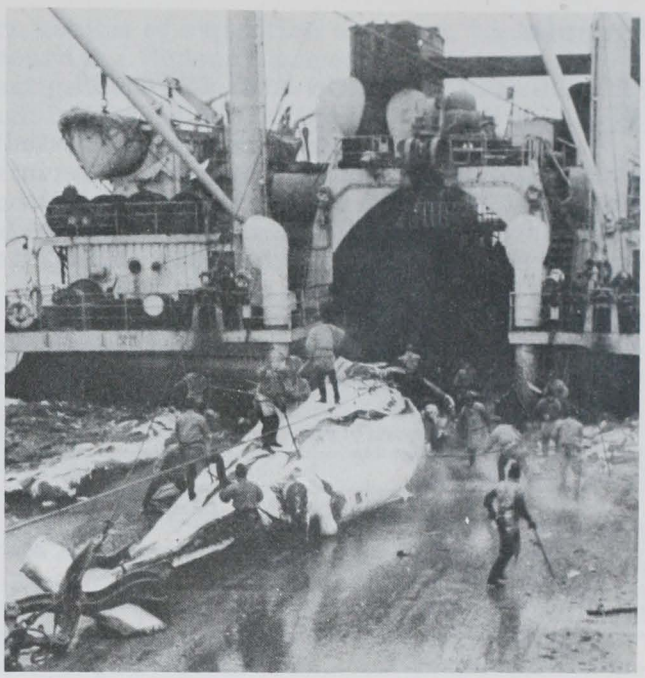
ANTARCTIC INTERNATIONAL
TA CUT RECOMMENDED:

Delegates from 12 nations, at the conclu-
n of a special 4-day International Whaling
ference in London, May 3-6, 1965, approved
solution recommending that the interna-
al quota for the 1965/66 Antarctic whaling
on be reduced to 4,500 blue-whale units
h unit is calculated to equal 2 fin whales,
$2\frac{1}{2}$ humpback whales, or 6 sei whales).

The resolution, which was addressed to
ernments of countries belonging to the In-
ational Whaling Commission, also recom-
ded Antarctic quota reductions in the suc-
ing two seasons. It was recommended
by 1967/68 the catch quota should not ex-
the maximum sustainable yield. That
d give the depleted whale herds in the
rctic a chance to begin their recovery.

The recommendations were to be consid-
by the International Whaling Commission
s 17th Annual Meeting scheduled to open
ndon, June 28, 1965. At its 17th Annual
ing, the Commission also planned to hear
a special scientific committee set up to
s the condition of North Pacific whale
ks.

ast year, at its 16th Annual Meeting in
1964, the International Whaling Commis-
was unable to agree on a quota for the
rctic. By informal agreement, the active



Cutting up a whale for processing aboard a Japanese whaling factoryship in the Antarctic.

Antarctic whaling countries (Japan, U.S.S.R., and Norway) established a 1964/65 quota of 8,000 blue-whale units, of which only 6,984 were actually caught. Giving weight to conservation arguments has been the striking decline in the Antarctic whale catch from 8,428 blue-whale units in 1963/64 and 11,299 units in 1962/63. (News of Norway, May 13, 1965, and unpublished sources.)

Note: See Commercial Fisheries Review, June 1965 p. 44; April 1965 p. 74; Sept. 1964 p. 54.

* * * * *

INTERNATIONAL WHALING CONVENTION AMENDED:

Amendments to paragraphs 2, 4(1), 6(3), 9(a), and 9(b) to the schedule to the International Whaling Convention of 1946 entered into force October 1, 1964, with the exception of paragraph 6(3), which entered into force January 22, 1965, except for Japan, Norway, the U.S.S.R., and the United Kingdom.

The amendments were adopted at the 16th annual meeting of the International Whaling Commission which was held June 22-26, 1964, in Sandefjord, Norway.

Note: See Commercial Fisheries Review, Sept. 1964 p. 54.

Angola

FISH OIL PRODUCTION AND EXPORTS, 1963-1964 AND OUTLOOK FOR 1965:

Fish oil production in Angola is estimated to have increased from 3,579 metric tons in 1963 to 5,000 tons in 1964. A forecast calls for an output of 8,000 tons of fish oil by the Angola reduction industry in 1965. (Editor's Note: A Government loan project to help modernize Angola's fish reduction industry is said to include plans to equip fish meal plants for full extraction of fish oil.)

Angola's Exports of Fish Oil, 1963-1064

Country of Destination	1964	1963
	(Metric Tons)	
Netherlands	4,731	2,193
West Germany	1,434	451
France	902	-
Portugal	283	478
Spain	29	-
Total	7,379	3,122

Angola's exports of fish oil increased from 3,122 tons in 1963 to 7,379 tons in 1964, due to larger shipments to the Netherlands, West Germany, and France. (Agricultural Attache, United States Embassy, Leopoldville, May 6, 1965.)

Note: See Commercial Fisheries Review, June 1965 p. 45 and Feb. 1965 p. 84.

Argentina

FISH MEAL AND OIL PRODUCTION AND EXPORTS, 1962-1964:

Fish Meal: Production of fish meal in Argentina from salt-water fish increased from about 3,000 metric tons in 1962 to over 10,000 tons in 1964. Much of the increase was taken by the domestic mixed feed industry. Argentine exports of fish meal declined in 1964 to a level only a little above that in 1962.

Argentina's Production and Exports of Fish Meal and Oil, 1962-1964

Item	1/1964	1963	1962
	(Metric Tons)		
Production:			
Fish meal:			
Salt-water	10,600.4	6,636.3	3,248.0
Fresh-water	1,299.3	1,418.9	1,273.0
Fish oil:			
Fish-body oil	1,512.6	1,135.8	718.5
Shark-liver oil	2/	63.1	0.7
Export:			
Fish oil	576.6	472.1	383.3
Fish meal	1,867.2	3,978.0	1,584.4

1/Preliminary.
2/Not available.

Fish Oil: Although showing some increase Argentine output of fish oil has not kept up with the rapid expansion in meal production. In 1964, Argentine fish oil production totaled 1,512 tons and exports amounted to 576 tons. (Agricultural Attache, United States Embassy Buenos Aires, April 26, 1965.)

Note: See Commercial Fisheries Review, Aug. 1964 p. 54.

British Honduras

FISHERY TRENDS, EARLY 1965:

The fisheries center at Belize City in British Honduras annually prepares about 400,000 pounds of frozen spiny lobster tails for export mainly to the United States. The spiny lobsters are taken mainly in shallow coastal waters off British Honduras, and overfishing is viewed with some concern by the Government. The resource has been the subject of several surveys and studies.

As regards fisheries potential, the reefs and keys off British Honduras are said to offer good fishing for snapper and other fish. Export markets for finfish are being sought.

Note: See Commercial Fisheries Review, Oct. 1963 p. 45.

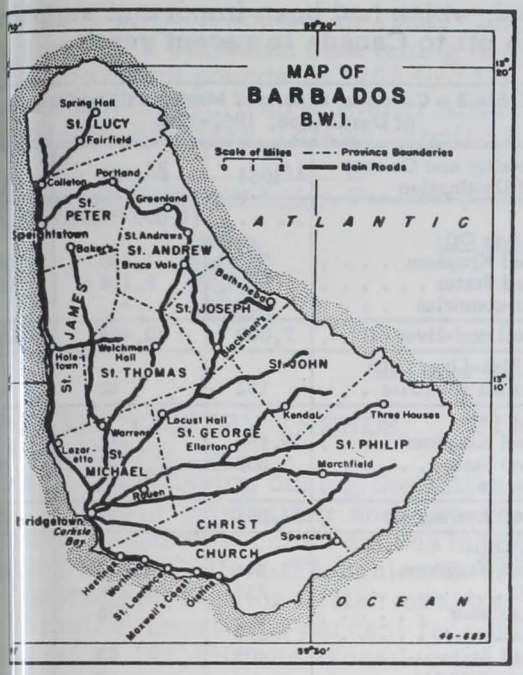
British West Indies

BARBADOS SHRIMP FISHERY TRENDS, 196

The United States-owned shrimp processing company established in Barbados continued to expand its local operations in 1964 and now has a fishing fleet of 25 to 30 trawlers. During 1964 the firm exported 1.5 million pounds of frozen shrimp, nearly all to the United States.

The firm's expansion plans now call for an eventual fleet of 50 trawlers, rather than the 100 vessels anticipated earlier. The problem of expanding the government-controlled freezing and storage facilities to keep abreast with a steadily increasing trawler fleet has not been completely resolved. The government-controlled Barbados Marketing Corporation is reluctant to expand those facilities without adequate assurance that the shrimp-processing firm will remain in Barbados for a considerable period of time. The enterprise,

British West Indies (Contd.):



however, has attracted the interest of local conservative businessmen who are willing to underwrite further expansion should the Government default. It is anticipated that 2 million pounds of frozen shrimp will be exported during 1965. Should the trawler fleet increase to the anticipated total of 50 vessels during the year, shrimp exports could rise to between 3.5 million to 4.5 million pounds. A vessel fleet would provide employment for over 500 Barbadians. (United States Consulate, Barbados, April 28, 1965.)

Note: See Commercial Fisheries Review, July 1964 p. 47.

Canada

SWORDFISH AND TUNA STUDY IN THE SOUTH ATLANTIC AND CARIBBEAN AREA:

A study designed to help Canadian east coast fishermen extend their seasonal fishery for swordfish and tuna, the Canadian research vessel Hudson began a South Atlantic and Caribbean cruise in February 1965. Aboard the vessel were biologists from the Canadian Fisheries Research Board Biological Station at St. Andrews, N.B., and cooperating biologists from other institutions, including the Woods Hole (Mass.) Oceanographic Institute. In an effort to explore the southern habitat of swordfish and tuna, biologists aboard the Hudson planned to begin their investigations just south of Cape Hatteras and then follow the Gulf Stream to the West Indies. Work was to include biological sampling to determine spawning seasons and areas, habits, and distribution patterns. The cruise was to extend as far south as 12° N. latitude in the eastern Caribbean Sea.

The Canadian catch of swordfish and tuna has grown markedly in the past few years. In 1964, 12 million pounds of swordfish caught by Nova Scotia fishermen were valued at $3.5 million. The Nova Scotia tuna catch totaled 2.5 million pounds.

However, the catch is seasonal, extending from May to September, and is made on the edge of the Continental Shelf off Nova Scotia. There is evidence that in September the tuna and swordfish migrate to southern waters. A knowledge of those areas and of the habits of the fish could aid Canadian fishermen. Canadian vessels already fish as far south as Cape Hatteras.

The Caribbean cruise is the most southern trip yet taken by the Hudson, the new floating laboratory of the Marine Sciences Branch of the Canadian Department of Mines and Technical Surveys.

Use of the vessel by the Fisheries Research Board illustrates the cooperative effort in oceanography among Canadian agencies represented on the Canadian Committee on Oceanography, which coordinates and directs Canada's effort in oceanographic research. (Canadian Fisherman, March 1965.)

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FISH MEAL AND OIL EXPORTS, 1963-64:

Canadian exports of fish meal, largely herring, were up 12 percent in 1964 from the previous year.

Canadian Exports of Fish Meal and Oil, 1963-64

Item	1/1964	1/1963
	. . .(Short Tons) . . .	
Fish meal:		
Herring	50,498	45,150
Other	11,992	10,404
Total	62,490	55,554
Fish oil & fish-liver oil:		
Cod-liver	3,482	5,233
Herring, industrial	11,646	474
Total	15,128	5,707

1/Preliminary.

Canada (Contd.):

With sharply higher prices on the world fish oil market, Canadian exports of herring oil in 1964 recovered from the extremely low level of 1963. But shipments of cod-liver oil were down in 1964. (Foreign Agriculture, April 26, 1965, U. S. Department of Agriculture.)

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MARINE-OIL PRODUCTION, USE, AND FOREIGN TRADE, 1963-1964:

Highlights of the Canadian marine oil industry in 1964 were a sharp rise in exports and, by contrast, an even sharper drop in imports. Major factors affecting the industry in 1964 were rising prices for marine oil and shifts in use of marine oil by the margarine industry.

Table 1 - Canadian Production of Marine Oils, 1962-1964 and Average for 1956-60

Item	1/ 1964	2/ 1963	1962	5 Yr. Average 1956-1960
	(1,000 Pounds)			
Atlantic 3/	13,770	11,757	10,792	13,146
British Columbia (herring oil) 4/	44,545	52,843	41,031	29,552
Total	58,315	64,600	51,823	42,698

1/Preliminary.
2/Revised.
3/Consists mainly of body oil and liver oil from groundfish species, herring, and seals.
4/Consists entirely of herring oil.
Note: Production data converted to pounds using the factor 9.3 pounds equal 1 imperial gallon.

Canada's herring oil exports were up from about 1 million pounds in 1963 to over 23 million pounds in 1964 (including over 19 million pounds to the United Kingdom and almost 4 million pounds to the United States). Total Canadian marine-oil exports increased from 17.6 million pounds in 1963 to 34.7 million pounds in 1964.

Table 2 - Canadian Imports of Marine Oils, 1963-1964

Country of Destination	1/ 1964	2/ 1963
	(1,000 Pounds)	
United States	626	12,543
Iceland	-	11,864
United Kingdom	212	614
Norway	242	255
Other countries	12	582
Total	1,092	25,858

1/Preliminary.
2/Revised.

By contrast, Canadian imports of marine oil fell from over 25 million pounds in 1963 to only about 1 million pounds in 1964. The cutback mainly affected the United States and Iceland, which had been important suppliers of fish oil to Canada in recent years.

Table 3 - Canadian Exports of Marine Oils by Country of Destination, 1962-1964

Commodity and Country of Destination	1/ 1964	2/ 1963	196
	(1,000 Pounds)		
Cod-Liver Oil:			
United Kingdom	3/	1,330	1,2
United States	3/	9,136	4,9
Other countries	3/	-	-
Total cod-liver oil	7,000	10,466	6,1
Other Fish-Liver Oils:			
Total all countries	162	12	
Herring Oil:			
United Kingdom	19,459	911	
United States	3,807	36	
Australia	25	-	
Total herring oil	23,291	947	
Whale Oil:			
United Kingdom	1,344	1,726	
Italy	739	2,228	
Netherlands	-	896	
Australia	673	-	
United States	405	60	
Other countries	-	8	
Total whale oil	3,161	4,918	1,
Other Marine Oils:			
United States	1,113	1,302	
Other countries	-	-	
Total other marine oils	1,113	1,302	
Total marine oil exports	34,727	17,645	7,

1/Preliminary.
2/Revised.
3/Breakdown not available.

Total domestic production of marine oil Canada in 1964 was down about 10 percent from the previous year. The decline was to lower output of British Columbia herri oil (down 16 percent in 1964). Canadian h ring oil prices began rising in the fourth q ter of 1964, reaching a high in December 13.1 Canadian cents a pound f.o.b. Toront Earlier in the year, herring oil prices at ronto had held fairly steady at about 10.7 a pound.

Trends in the margarine industry hav important bearing on marine-oil trade, s marine oil can be substituted for vegetab in both margarine and shortening. The s ing increase in herring oil exports to the ed Kingdom was probably due to its incre use in British margarine. (Canadian exp of soybean oil to the United Kingdom dro in 1964.) On the other hand, the reverse that process was seen in the Canadian do tic industry where use of marine oil in m garine dropped from 64.5 million pounds

Canada (Contd.):

to 29.7 million pounds in 1964. The use of marine oil in Canadian shortening dropped from 22.9 million pounds in 1963 to 13.5 million pounds in 1964. (Agricultural Attache, United States Embassy, Ottawa, April 17 and 29, 1965.)

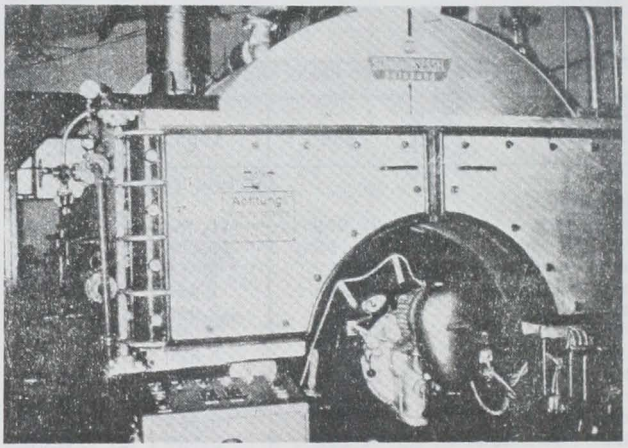
See Commercial Fisheries Review, Dec. 1964 p. 84, Aug. 1964 p. 56.

Chile

FISH MEAL INDUSTRY TRENDS, FIRST QUARTER 1965:

Despite poor fishing during the latter part of 1964, Chilean production and exports of both fish meal and oil set new records in 1964. According to the Chilean Fisheries Development Institute, production of fish meal totaled 188,388 metric tons (up 69 percent from 1963) and exports of 146,450 tons exceeded the previous year's level by 70 percent. Fish oil production in 1964 was 16,177 tons and exports totaled[1] 12,568 tons, up 28 percent and 7 percent, respectively, from the preceding year.

An anchoveta shortage coupled with excess capacity in the Chilean reduction industry makes the 1965 outlook much less promising. Provisional data for 1965 show an anchoveta catch of 84,000 tons in January and 67,000 tons in February, a decline of more than 50 percent from the catch in the first 2 months of 1964. Reports of fish meal plants in financial crisis are increasing, and unemployment is rising in Tarapaca Province, where most of the fish meal plants are located. Shortly after the end of the first quarter of 1965, one large Iquique plant announced it was shutting down. If more abundant raw material sources are not located soon, other plants will also have to close.



Boiler room of fish meal plant in San Antonio, Chile.

Those developments are building up pressure for aid to the threatened industry. Increased attention is being given to scientific study of marine resources and to the merits of conservation, but those are long-range measures. The Production Development Corporation of Chile (CORFO) is no longer extending credits to build new fish meal plants, and the Navy has stopped granting property concessions for new plants. But those steps provide no direct relief to existing concerns. The Government is under increasing pressure to extend new loans, buy meal for future delivery, reinstitute export subsidies, declare a moratorium on principal payments due (as was recently done for ship owners), or even to take over the industry. Some new Government activity seems probable unless the elusive anchoveta return in quantity.

1/ This amount does not agree with that shown in table on p. because source is different.

Chile (Contd.):

(United States Embassy, Santiago, April 23, 1965.)

Note: See Commercial Fisheries Review, June 1965 p. 50, May 1965 p. 63.

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EXPORTS OF FISH MEAL AND OIL BY COUNTRY OF DESTINATION, 1962-1964:

Fish Meal: Expansion of the Chilean reduction industry resulted in sharply higher fish meal exports in 1964. Much of the increase went to West Germany, the Netherlands, and Belgium, the leading buyers of Chilean fish meal in 1964. But shipments to the United States were down in 1964, accounting for less than 10 percent of the total.

Chilean Exports of Fish Meal and Oil, 1962-1964

Country of Destination	1964	1963	1962
	. . . . (Metric Tons). . . .		
Fish meal:			
Belgium	23,099	11,352	10,478
West Germany	41,186	10,026	10,191
Netherlands	38,118	8,655	15,369
France	7,855	1,850	4,025
Italy	3,500	2,050	600
Poland	2,000	2,000	2,500
Spain	1,300	8,600	4,000
United Kingdom	14,654	6,509	5,974
United States	13,103	19,757	11,771
Venezuela	370	10,363	5,962
Other countries	1,265	5,157	1,300
Total fish meal	146,450	86,319	72,170
Fish oil:			
West Germany	181	1,776	2,256
Netherlands	12,755	9,625	8,035
Other countries	822	142	618
Total fish oil	13,758	11,543	10,909

Source: Chilean Customs Office.

Fish Oil: Chilean exports of fish oil increased much less than fish meal in 1964 because of the relatively low oil yield of anchoveta during the past season. The Netherlands has taken the bulk of Chilean fish oil exports during the last 3 years. (Foreign Agriculture, U. S. Department of Agriculture, May 10, 1965.)

Cuba

TUNA FISHERIES EXPANSION:

The Fisheries Corporation of the Cuban Government plans to buy three or four tuna fishing vessels from Spain, according to a report in the Japanese periodical Asahi, April 25, 1965.

In 1963, Cuba acquired five 350-ton tuna vessels from Japan, together with the services of about 80 Japanese fishermen who came to Cuba to give technical advice. Early in 1965, about 50 of those Japanese technicians returned home. To replace those technicians and to obtain crewmen for the vessels to be ordered from Spain, the Cuban Government was reported trying to recruit another 80 Japanese fishermen.

Note: See Commercial Fisheries Review, April 1963 p. 46, 1962 p. 73.

Denmark

EXPORTS OF FROZEN FISH FILLETS AND BLOCKS AND RAINBOW TROUT, JANUARY-FEBRUARY 1965:

Denmark's exports of frozen fish fillets and blocks (mostly groundfish) during January-February 1965 amounted to 7.8 million pounds. The January 1965 exports totaled almost 3.0 million pounds; February 4.8 million pounds.

Exports of frozen rainbow trout in the 2 months of 1965 totaled 2.7 million pounds. In January 1965 those exports were almost 1.4 million pounds; February 1.3 million pounds.

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FISHERY TRENDS, JANUARY-MARCH 1965:

Landings: Danish fishery landings in ports by Danish fishermen during January-March 1965 were up 26 percent from the period in 1964. Landings increased for industrial fish (up 251 percent), cod and codlike fish (up 19 percent), and herring (up 12 percent). Other important species showing increases were salmon, pond trout, and shrimp, but landings of flatfish, brisling, and Norway pout were down. During the period, there were lower direct landings in foreign ports by Danish vessels and in Danish ports by foreign vessels.

Denmark (Contd.):

Table 1 - Danish Fishery Landings, January-March 1965 and 1964

Species	Jan.-Mar. 1965	Jan.-Mar. 1964
	. . (Metric Tons) . .	
Landings in Denmark by Danish vessels:		
Flatfish 1/	10,359	13,145
Cod 2/	41,660	25,766
Herring	77,615	69,436
Sprat	792	1,868
Mackerel	274	215
Eels	54	26
Salmon	482	-
Sea trout	1,999	1,835
Other fish 3/	36,389	19,885
Mussels	4,511	4,657
Shellfish	991	1,466
Shrimp, lobster, and other shellfish	1,215	1,104
Total	176,341	139,403
Landings in Denmark by foreign vessels	45,194	50,374
Landings in foreign ports by Danish vessels	291	688

1/ Flounder, dab, common sole, etc.
2/ Cod, haddock, coalfish, hake, ling, etc.
3/ Mainly industrial fish such as Norway pout, sand eels, etc.
Source: Ministry of Fisheries.

Processing: Of the fishery products processed during the first quarter of 1965, only cod and flatfish was down in quantity from the same period a year earlier. During the first quarter of 1965, substantially more cod and codlike fish and herring were processed as fillets or frozen fish, but production of plaice fillets was down because of lower landings of this species.

Table 2 - Danish Production of Processed Fishery Products, January-March 1965

Product	Jan.-Mar. 1965	Jan.-Mar. 1964
	. . (Metric Tons).	
Canned:		
Herring and sprats	1,142	1,395
Mackerel	64	74
Other fish	1,894	1,960
Mussels	173	184
Other shellfish	186	175
Total	3,459	3,788
Salt preserved:		
Herring and sprats	1,467	1,225
Other fish	128	103
Mussels	158	108
Total	1,753	1,436

(Table continued on next column.)

Product	Jan.-Mar. 1965	Jan.-Mar. 1964
	. . (Metric Tons).	
Fresh and frozen fillets:		
Cod	9,892	7,281
Codlike fish 1/	868	292
Plaice	2,575	2,738
Other flatfish	326	254
Herring	15,006	10,175
Other fish	43	35
Total	28,710	20,775
Smoked:		
Herring and sprats	312	229
Mackerel	170	114
Eels	147	169
Salmon and trout	189	105
Other fish and shellfish	107	62
Total	925	679
Miscellaneous:		
Force meat 2/	533	391
Salted herring	8	4/
Dry-salted cod	154	4/
Other fishery products	360	280
Total	1,055	4/
Industrial products:		
Meal	23,686	14,511
Oil	5,651	5,316
Ensilage 3/	1,181	1,214
Solubles	1,770	1,405
Total	32,288	22,446

1/Haddock, coalfish, hake, ling, etc.
2/Ground fish, milk, and flour.
3/Chemically-treated raw fish.
4/Not available.
Source: Ministry of Fisheries.

Production of fish meal in the first quarter of 1965 was up substantially from the same period in 1964, and there was some increase in the production of fish oil as a result of heavier industrial fish landings than in the same period a year earlier. (Regional Fisheries Attache for Europe, United States Embassy, Copenhagen, May 5, 1965.)

Faroe Islands

EXPORTS OF FROZEN FISH FILLETS, 1963-1964:

Faroese exports of frozen fish fillets in 1964 were down 14 percent in quantity and 4 percent in value from the previous year. Shipments to the United States, which is the leading market, totaled 807 metric tons in 1964, down only 50 tons from the previous year. But shipments in 1964 were down sharply to East Germany and there were no exports to Hungary (which took 149 tons in the previous year). The decline was partly offset by higher

Faroe Islands (Contd.):

Faroese Exports of Frozen Fish Fillets, 1963-1964

Country of Destination	1964			1963		
	Quantity	Value		Quantity	Value	
	Metric Tons	Kr. 1,000	US$ 1,000	Metric Tons	Kr. 1,000	US$ 1,000
Denmark	16	56	8.1	17	48	7.0
United States . .	807	2,893	419.2	857	2,783	403.3
United Kingdom .	454	1,345	194.9	322	892	129.3
East Germany . .	158	334	48.4	485	1,025	148.5
Hungary	-	-	-	149	304	44.0
Czechoslovakia .	324	641	92.9	209	433	62.8
Total . . .	1,759	5,269	763.5	2,039	5,485	794.9

Note: Kroner 6.9 equal U$1.00.

exports to the United Kingdom and Czechoslovakia. (Faroes in Figures, No. 29 March 1965.)

Iceland

EXPORT STOCKS OF PRINCIPAL FISHERY PRODUCTS, MARCH 31, 1965:

Iceland's stocks of frozen groundfish (fillets) for export to the United States totaled 5,156 metric tons as of March 31, 1965 (see table).

Icelandic Export Stocks[1] of Principal Fishery Products, March 31, 1965

Item	Quantity	Value	
	Metric Tons	Million Kr.	US$ 1,000
Groundfish, frozen:			
For export to:			
U. S.	5,156	113.4	2,633.5
Other countries . . .	2,926	50.6	1,175.1
Stockfish	4,420	123.8	2,875.0
Herring:			
Salted	2/	2.9	67.3
Frozen	5,132	29.3	680.4
Industrial products:			
Fish meal:			
Herring	3,435	24.7	573.6
Other fish	8,013	34.8	808.2
Herring oil	17,871	148.3	3,444.0

1/Includes only stocks intended for export.
2/Not available.
Note: Icelandic kronur 43.06 equal US$1.00.

United States imports of frozen groundfish fillets from Iceland in the year 1964 totaled 17,812 metric tons of groundfish blocks and slabs, 4,669 metric tons of cod fillets, 2,791 metric tons of haddock fillets, and 548 metric tons of ocean perch fillets. (United States Embassy, Reykjavik, April 28, 1965.)

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EXPORTS OF FISHERY PRODUCTS, JANUARY-FEBRUARY 1965:

During January-February 1965, there w an increase in exports of dried salted fish, salted fish fillets, stockfish, canned fish, c liver oil, and herring oil, as compared wit the same period in 1964, according to the I landic periodical Hagtidindi, March 1965.

Icelandic Fishery Exports, January-February 1965 with Comparisons

Product	Jan.-Feb. 1965			Jan.-Feb. 1964		
	Qty.	Value f.o.b.		Qty.	Value f.o.b.	
	Metric Tons	1,000 Kr.	US$ 1,000	Metric Tons	1,000 Kr.	US$ 1,000
Salted fish, dried	1,066	21,913	508	507	12,829	
Salted fish, uncured	867	14,462	336	961	14,491	
Salted fish fillets	297	5,772	134	161	2,075	
Wings, salted	44	600	14	105	1,431	
Stockfish	2,089	60,811	1,411	1,641	47,005	1,
Herring on ice	-	-	-	-	-	
Other fish on ice	6,905	42,641	989	6,672	40,840	
Herring, frozen	5,880	37,640	873	6,743	40,434	
Other frozen fish, whole	1,259	14,522	337	758	7,837	
Frozen fish fillets	2,166	48,774	1,132	7,015	154,190	3
Shrimp and lobster, frozen	73	6,523	151	114	11,165	
Roes, frozen	183	2,825	66	44	1,054	
Canned fish	76	3,964	92	40	1,849	
Cod-liver oil	1,047	11,555	268	737	7,201	
Lumpfish roes, salted	-	-	-	1	27	
Other roes for food, salted	-	-	-	1	18	
Roes for bait, salted	-	-	-	-	-	
Herring, salted	5,006	53,765	1,247	6,315	67,046	1
Herring oil	3,931	31,902	740	3,576	28,489	
Ocean perch oil	-	-	-	28	188	
Whale oil	774	6,698	155	2,101	18,675	
Fish meal	754	4,878	113	3,620	19,004	
Herring meal	14,823	101,935	2,365	16,821	93,483	2,
Ocean perch meal	-	-	-	-	-	
Wastes of fish, frozen	597	1,881	44	197	534	
Liver meal	94	666	15	100	658	
Lobster and shrimp meal	25	124	3	87	346	
Whale meal	311	1,889	44	630	3,514	
Whale meat, frozen	10	80	2	43	331	

Note: Values converted at rate of 1 krona equal 2.32 U. S. cents.

ports of frozen herring, frozen fish fillets, salted herring, whale oil, fish meal, herri meal, and whale meal showed a considera decrease in the first 2 months of 1965.

* * * * *

TRAWLER FLEET CONTINUES TO DECLINE:

The Icelandic trawler fleet continued t cline in 1964. The operating fleet of 30 t ers during the year accounted for only 6 metric tons of fish and represented 6.5 p cent of Iceland's 1964 total fishery catch. comparison, the trawling fleet in 1963 co ed of 37 operating vessels which caught 7 tons of fish or 9.2 percent of that year's Icelandic catch. The 1963-64 record is sharp contrast to 1954 when the 51 vesse the trawler fleet caught 166,901 tons of f and accounted for 43.1 percent of the tot catch.

At the beginning of 1965 the Icelandic t er fleet consisted of 39 vessels with a to

Iceland (Contd.):

Figure 1.--Small fishing craft in foreground and a small trawler on far side of wharf at Reykjavik.

gross tonnage of 27,395 tons, of which 30 vessels were in operation and the remaining 9 vessels were moored in Icelandic harbors (65 of them were advertised for sale). Three trawlers were removed from the fleet during 1964 and sold to Greek interests at a reported price of $100,000 each. A fourth trawler was sold to the Faroe Islands but it was returned when an import license could not be obtained.

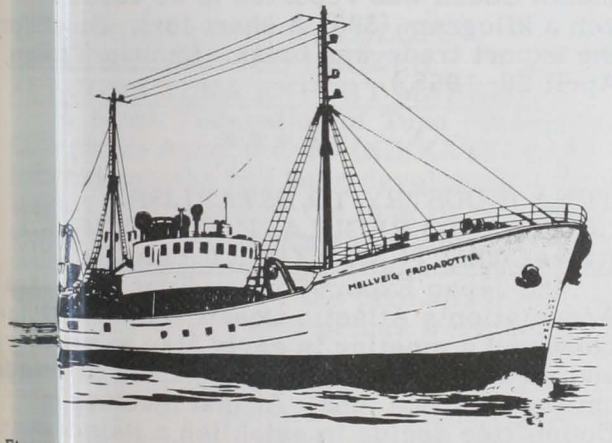

Figure 2.--One of a number of trawlers built in Great Britain for Iceland in 1948.

Iceland's existing operating trawler fleet consists largely of vessels in the 700-ton class built during 1945-48, with only 4 trawlers in the 1,000-ton class built since 1960. This smaller capacity of the older trawlers (about 500-ton capacity as against 500 tons) reduces their operating efficiency along with the Icelandic legal requirement that trawlers be manned by a crew of 28 to 32. British trawlers, which often fish just outside the Icelandic fisheries limits, normally have a crew of 21 and West German trawlers a crew of 24.

Icelandic trawler owners claim that the economic recovery of the trawler fleet will depend on a reduction of the crew size and permission to fish within the 12-mile fishing limit, an area barred to them since 1958. (United States Embassy, Reykjavik, May 4, 1965.)

Italy

MARINE OIL FOREIGN TRADE, 1963-1964:

Italy's foreign trade in marine oils in 1963 and 1964 consisted almost entirely of incoming shipments as exports were insignificant. Italian imports of marine oils (other than liver oils) in 1964 were down about 5 percent from the previous year due mainly to lower shipments from Norway and Morocco. The decline was partly offset by a sharp gain in shipments from the Netherlands as well as by increases from South Africa, Canada, Peru, and Australia.

Italy's Foreign Trade in Marine Oils, 1963-1964

Commodity and Country of Destination	Imports		Exports	
	1964	1963	1964	1963
	(Metric Tons)			
Marine oils (other than liver oils):				
France	642	1,079	-	-
West Germany	184	116	-	-
Norway	2,818	4,432	-	-
Netherlands	2,021	626	-	-
Portugal	539	706	-	-
United Kingdom	173	255	-	-
Morocco	1,119	1,947	-	-
South Africa	369	6	-	-
Canada	805	297	-	-
Peru	500	114	-	-
United States	12	163	-	-
Australia	151	-	-	-
Other countries	55	121	15	17
Total marine oils (other than liver oils)	9,388	9,862	15	17
Marine liver oils:				
Finland	-	19	-	-
France	-	43	-	-
West Germany	73	58	-	-
Iceland	128	22	-	-
Norway	536	607	-	-
Portugal	184	491	-	-
United Kingdom	410	198	-	-
Others	35	40	4	1
Total marine liver oils	1,366	1,478	4	1

Italian imports of liver oils also showed a modest decline in 1964. (Agricultural Attache United States Embassy, Rome, April 22, 1965.)

Note: See Commercial Fisheries Review, Oct. 1964, p. 60.

Ivory Coast

CANNED SARDINE AND TUNA PRODUCTION PLANS FOR 1965/66 SEASON:

After 6 months of research and experimental packing, a cannery in Abidjan has announced plans for commercial production of canned sardines, using the Gulf of Guinea Sardinella stocks (both S. eba and S. aurita). The company plans a tuna and sardine pack during the 1965/66 season (starting in early August) totaling 30,000 cases of 100 "1/4 club" cans (122 grams or 4.3 ounces net). That pack is to include 2 million cans of sardine fillets in tomato sauce or soya oil and 1 million cans of flake tuna.

The company has learned through market research in the Ivory Coast that flake tuna in the "1/4 club" can sells much better than the "1/10" pack of the same product, and can now be offered to the consumer at the same price as a can of sardine fillets--40 CFA francs (about 16 U. S. cents).

The Abidjan cannery has announced tentative prices at various market levels as follows:

Pricing Point	Price Per "1/4" Can			
	Fillet of Sardines in Oil or Tomato Sauce		Flake Tuna in Oil or Tomato Sauce	
	CFA Francs	U.S. Cents	CFA Francs	U.S. Cents
To distributors	32	12.9	33	13.4
To wholesalers	35	14.2	36	14.6
Retail	40	16.2	40	16.2
For export (tax exempt)	24.6	10.0	25.4	10.3

In recent years, Ivory Coast imports of Moroccan sardines have been about 6 million cans annually. Since the expanded pack of the Abidjan cannery will probably be distributed mainly within the Ivory Coast, imports from Morocco could be cut almost in half during 1965/66, with a more drastic cut possible in later years. (United States Regional Fisheries Attache for Africa, United States Embassy, Abidjan, April 24, 1965.)

Notes: (1) CFA francs 247 equal US$1.00.
(2) See Commercial Fisheries Review, March 1965 p. 75 and Feb. 1965 p. 83.

Japan

SUMMER ALBACORE TUNA FISHERY AND EXPORT PRICE TRENDS:

The summer albacore fishery off Japa was off to a good start as of April 1965. Some 200-300 metric tons were landed da at Yaizu and Shimizu and as of late April 4,000 tons had been landed. Ex-vessel pr were 123-125 yen a kilogram (US$310-31 short ton) for large albacore (over 33 lbs and 110-118 yen a kilogram ($277-297 a s ton) for smaller (25-lb.) fish. Most of th large fish was purchased by packers for ning.

The price of frozen round albacore ex ported to the United States from Japan p was $365-370 a short ton c.& f. in late A with the market firm.

The export market for yellowfin tuna said to have firmed in late April, with pr up $5-10 a short ton since early April. zen yellowfin (gilled and gutted) exported the United States from Japan proper wer $365 a short ton c.& f. The Japanese dom tic ex-vessel price for yellowfin from th Indian Ocean was reported to be about 11 yen a kilogram ($282 a short ton). Buyin the export trade was brisk. (Suisan Tsus April 28, 1965.)

* * * * *

TUNA INDUSTRY TO ESTABLISH COUNCIL TO REGULATE ATLANTIC ALBACORE TUNA EXPORT TRADE:

The Japan Export Frozen Tuna Produ Association's Atlantic Ocean Tuna Comm convened a meeting in early May to seek and means of stabilizing the export of At caught albacore tuna. At that meeting, t Committee decide to establish a liaison c cil, representing the Export Frozen Tun ducers Association, the National Federa of Tuna Fishermen's Cooperative Asso (NIKKATSUREN), and the Japan Frozen Exporters Association, to develop means stabilizing the Atlantic albacore trade. cipal functions of the council will be to:

1. Develop and implement an annual port plan. To stabilize albacore export council will develop a seasonal and regi supply plan based on market conditions.

2. Establish stable export prices. B on minimum export prices to be set by t

Japan (Contd.):

Export Frozen Tuna Producers Association, the council will establish proper sales prices to avoid undue competition among Japanese trading firms and to prevent foreign buyers from beating down prices.

. Adjust differences in freight costs. In view of differences in freight costs from point of shipment to point of destination, the council will make adjustments so as to enable foreign countries to import albacore under generally similar conditions.

Also at the same meeting, the Committee established the following tentative export targets for Atlantic albacore (based on estimated landings of 48,000 short tons a year): 30,000 tons to U. S. packers in Puerto Rico; 10,000 tons to U. S. packers on the Pacific Coast; and 8,000 tons to Italy, Yugoslavia, and other European countries. However, those targets are expected to be examined in greater detail for development of a monthly supply plan. (In Suisan Shimbun, May 3, 1965.)

* * * * *

THE FEDERATION DEVELOPS PLAN TO STABILIZE FROZEN ALBACORE TUNA EXPORT MARKET:

The Japan Federation of Tuna Fishermen's Cooperative Associations (NIKKATSUREN) for some months has been developing a master plan to reorganize the tuna fishing fleet in an effort to overcome the economic difficulties facing its membership. At a directors meeting in April 1965 the plan and measures to stabilize export tuna prices were reviewed. The meeting adopted a plan whereby NIKKATSUREN would act as sole purchasing agent for all ship-frozen albacore tuna landed in Japan, including surplus Atlantic-caught albacore transshipped to Japan, which it would market in Japan for domestic consumption. NIKKATSUREN estimates the oversupply of Japanese-caught albacore to amount to 20,000-25,000 metric tons a year, but believes that a good potential demand for albacore exists in Japan and hopes to develop it as a means of disposing the oversupply.

Under NIKKATSUREN's plan, frozen albacore for export would be supplied primarily from the Atlantic and Indian Ocean fisheries and from the mothership and overseas-based fisheries. For example, Japanese albacore exports to California would be transshipped from the Atlantic Ocean rather than shipped from Japan proper. The additional cost of transportation would be shared equally by the fishermen. On the other hand, pole-caught summer albacore would be primarily delivered to domestic packers and ship-frozen albacore supplied to new domestic markets to be developed by NIKKATSUREN.

On April 30, NIKKATSUREN met with the Frozen Foods Exporters Association to explain the gist of its plan to stabilize the albacore market. It was reported that the Japanese trading firms basically supported NIKKATSUREN's albacore redistribution plan, but felt that the trade in Atlantic-caught albacore must first be stabilized in order to stabilize the domestic and export albacore market, and that in this context some kind of control must first be imposed on the flow of Atlantic caught tuna. Further, NIKKATSUREN's plan to control the marketing of ship-frozen albacore landed in Japan may well force up ex-vessel prices for pole-caught albacore, which under NIKKATSUREN's plan would be sold to Japanese packers. (Suisan Tsushin, May 4; Minato Shimbun, April 28, 1965.)

* * * * *

THIRD CANNED TUNA IN BRINE SALE TO UNITED STATES:

The Tokyo Canned Tuna Sales Company offered for the third sale of canned tuna in brine for export to the United States a total of 350,000 cases, consisting of 280,000 cases of white meat tuna and 70,000 cases of light-meat tuna. Shipping period was May-June 1965. Base prices were US$9.50 a case for solid white and $7.35 a case for solid light. For the first two sales, the Sales Company offered for export a total of 400,000 cases (300,000 cases of whitemeat and 100,000 cases of lightmeat). (Kansume Nippo, May 15, 1965, and other sources.)

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CANNED TUNA PACK TRENDS:

The packing in Japan of canned tuna in brine for export is proceeding at a smooth pace. Some packers by early May 1965 had met their pack quota for the first quarter (April-June). The somewhat accelerated production pace is attributed to several factors: short supply in April and early May of other items to pack (such as mackerel, bamboo sprouts, and beans) and a comparatively abundant supply of tuna available at not too

Japan (Contd.):

high prices. Packers are reported to be paying 110-115 yen a kilogram (US$277-290 a short ton) for albacore and 67-70 yen a kilogram ($169-176 a short ton) for skipjack.

Interior view of tuna canning plant in Japan.

On the other hand, the pack of canned tuna in oil for export is proceeding at a slow pace. Tuna packed in oil are mainly Indian bluefin quoted at 80 yen a kilogram ($202 a short ton) and skipjack at 70 yen a kilogram ($176 a short ton).

Price of the oil pack (mainly for export to Europe) as of early May was around 2,330 yen ($6.47) a case (48 7-oz. cans) and 1,330 yen ($3.69) a case (48 3.5-oz. cans). Packers are reported unable to show a profit at those low prices, which are attributed to the practice of some canners selling their pack even at a loss. (Kanzume Nippo, May 7, 1965.)

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CANNED TUNA SHIPMENTS FROM SHIMIZU, MARCH 1965:

Shipments of canned tuna products made by vessel from Shimizu in March 1965 totaled 430,070 actual cases--250,638 cases to the United States and Canada, 164,789 cases to Europe, and 14,643 cases to other countries. For January-March 1965, a total of 743,248 cases had been shipped from Shimizu. (Kansume Nippo, May 15, 1965.)

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CANNED TUNA IN BRINE EXPORT SALES DEVELOPMENTS:

The Japanese Tuna Packers Association and the Canned Foods Exporters Association in early April 1965 agreed to the 1965 Exporters Agreement governing the export of canned tuna in brine to the United States. The agreement provides that 70 percent of the canned tuna in brine export pack will be allocated to exporters on the basis of their past performance records and 30 percent to be set aside as an adjustment quota. Thus, the Packers Association decided to make available for sale between April-May a total of 400,000 cases (300,000 cases of whitemeat tuna and 100,000 cases of lightmeat tuna), and for the first sale offered 280,000 cases, representing the 70-percent past performance quota.

For the second sale, conducted in early May, the Packers Association offered 120,000 cases, representing the remaining 30-percent adjustment quota (of the original 400,000 cases). Reportedly, the 18 authorized exporting firms submitted offers to purchase a total of 207,000 cases but the Association is only releasing 120,000 cases. This action on the part of the packers is being criticized as being unreasonable at this time when they should be most willing to sell as much as possible, but it is reported that the decision for not offering the full amount requested by the exporters may possibly be based on some kind of understanding with the exporters. (Suisan Tsushin, May 8; Kanzume Nippo, May 8, 1965.)

Note: See Commercial Fisheries Review, July 1965 p. 104; June 1965 p. 72; May 1965 p. 71.

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EXPORTS OF CANNED TUNA IN OIL AND SPECIALTY PACKS, FISCAL YEAR 1964:

Japanese canned tuna in oil approved for export in fiscal year 1964 (April 1964-March 1965) totaled 1,989,004 cases, according to data compiled by the Japan Canned Tuna Packers Association. This was a 33-percent increase over fiscal year 1963 exports and 23 percent more than exports in 1962.

Table 1 - Japanese Exports of Canned Tuna in Oil, Fiscal Year 1964 with Comparisons

Product	FY 1964	FY 1963	FY 19
	(No. of Actual Cases)		
Albacore	388,585	381,246	387,
Yellowfin	19,517	98,365	45,
Big-eyed	595,364	945,294	526,
Skipjack	984,778	498,990	652,
Tuna flakes	760	900	
Total	1,989,004	1,924,795	1,613,

The principal countries of destination for Japan's exports of canned tuna in oil were West Germany 785,564 cases; Canada 242,; Great Britain 191,297; Switzerland 139,124; the Netherlands 108,985 cases.

Japanese canned tuna other than in oil or brine approved for export in fiscal year 19 totaled 678,224 cases, nearly 50 percent m than the quantity exported in fiscal year 19

Japan (Contd.):

Table 2 - Japanese Exports of Canned Tuna Other Than in Oil, Fiscal Year 1964 with Comparsions

Product	FY 1964	FY 1963	FY 1962
	(No. of Actual Cases)		
Jelly tuna	72,064	42,736	95,598
White meat tuna	575,583	362,674	328,140
Tuna in tomato sauce	193	17,976	14,168
Tuna flake in soy sauce	20,080	4,600	Unknown
Flavorized tuna	2,700	Unknown	"
Other types	7,604	10,910	7,446
Total	678,224	438,896	445,352

Japan's exports of canned pet food in fiscal year 1964 totaled 841,983 cases, consisting of 822,278 cases of ½-lb. 48's and 18,705 cases of 1-lb. tall 24's. (Suisan Tsushin, April 19; Kaigai Nippo, April 15 & 16, 1965.)

* * * * *

TUNA INDUSTRY STATUS DISCUSSED AT GOVERNMENT-INDUSTRY MEETINGS:

The Japanese Fisheries Agency has scheduled a series of Government-industry discussion meetings for 1965 to seek ways and means of strengthening the tuna industry which, despite its dominant position in the Japanese fisheries, has been experiencing management difficulties. The Agency plans to hold a total of 7 discussion meetings, beginning in mid-May and ending in November, to thoroughly explore the problems plaguing the tuna industry.

Topics to be discussed at the meetings include: (1) background and present status of the tuna fishery; (2) fisheries management; (3) tuna resources and status of research; (4) marketing; and (5) world tuna trends.

The Agency has already announced the names of the 17 members that will participate in the discussions. Four of the persons selected are Government officials and the others are all from industry. (Nihon Suisan Shimbun, April 28, Suisancho Nippo, April 26, 1965.)

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VERTICAL DISTRIBUTION OF ALBACORE TUNA INFLUENCED BY SECOND THERMOCLINE, SAY JAPANESE SCIENTISTS:

A theory attributing the density of summer albacore tuna schools appearing off the coast of Japan to the effect of a thermocline at great depths (upwards to 400-500 meters or 1,312 to 1,640 feet) has been advanced by a scientist of the Tokai University's Fishery Research Laboratory at a seminar conducted several months ago in Tokyo by the Japan Scientific Society of Fisheries.

It is generally held that the vertical distribution of albacore is determined by water temperature conditions in the upper surface layers, as well as by current conditions, and that abundance in any given year is determined by the size of the run. The University scientist maintains that the summer albacore runs off Japan are generally uniform, except that in poor years the albacore are found in waters further to the east in deeper waters. He has successfully located such albacore schools at great depths by means of a new fish finder. He found albacore at depths of 400 meters, and some schools at those depths showed no signs of moving up to the surface for over a week. He concludes that the vertical movement of the albacore, which were caught when they moved to the surface, was presumably due to factors other than response to food stimuli.

The Japanese scientist examined oceanographic data compiled by the Hydrographic Division of the Japanese Maritime Safety Agency during the last 10 years and found that fishing conditions in the past appeared to show some relationship with the distribution pattern of a second thermocline. It is his theory that the vertical distribution of albacore tuna off Japan may be influenced not only by the water temperature in the upper surface layers but also by temperature and current conditions in the deeper depths. (Suisan Keizai Shimbun, April 15, 1965.)

* * * * *

CANNED FOOD EXPORT TARGETS, FISCAL YEAR 1965:

The Canned Foods Committee of the Japanese Ministry of International Trade and Industry's Agricultural and Marine Products Export Council held a meeting April 20, 1965, to set the fiscal year 1965 (April 1965-March 1966) canned foods export target and to develop recommendations for their attainment. The export target established by the Committee totaled 19,367,000 cases of canned food products valued at US$168,991,000, an increase of 6.7 percent in quantity and 0.9 percent in value over the 1964 exports. The Committee adopted the following recommendations:

Japan (Contd.):

1. The Government should develop measures to ensure procurement of raw materials by packers. For that purpose, the Government should exercise a greater degree of administrative leadership to facilitate collective bargaining between suppliers and packers, and to encourage suppliers to speed up delivery of raw material.

2. Canned prices should be reduced.

3. The Government should relax loan requirements by establishing a system whereby sales companies may advance loans to packers under terms similar to those granted by financial institutions to exporters and also permit higher ceilings on long-term low-interest improvement loans.

4. The Government should conduct more positive economic negotiations with foreign countries to increase canned food exports. For that purpose, it should: (a) Seek to have the United States reduce as follows the ad valorem import duties on the following fishery products: canned tuna in oil, from 35 percent to 12.5 percent, the rate presently applied to canned tuna in brine imports; canned crab meat, from 22.5 percent to 11.5 percent; and canned clams, to 10 percent. (b) Seek to have the United States abolish the tariff quota on canned tuna in brine imports. (c) Include canned sardines, mackerel, saury, squid, and salmon (particularly pink) in the items of reparations goods to be delivered to the Phillippines and Indonesia. (d) Seek to increase the import quotas set by southeast Asian countries, especially Indonesia and Malaysia, on canned saury and mackerel. (e) Forestall movements in foreign countries aimed at restricting imports of Japanese products. (f) Prohibit exports of products on which substantially high tariffs would be imposed through application of the European Economic Community (EEC) common tariff and seek to reduce EEC common tariffs.

5. Study ways of promoting exports of products which meet export specifications.

6. Step up promotional activities abroad and increase Government subsidy to cover expenses required for marketing research to promote demand.

7. Apply the existing sugar export rebate system to all canned food exports and simplify rebate procedure.

8. Grant favorable treatment in assessi charges for public-operated services, such railway transportation, and establish specia domestic transportation arrangements for seasonal shipments of export canned food products. (Suisan Keizai Shimbun, April 2; Suisan Tsushin, April 22, 1965.)

Japanese Canned Foods Export Targets for FY 1964 with Comparisons

Product	Quantity		Value	
	FY 1965	FY 1964	FY 1965	FY 196
	. . (1,000 Cases). .		. . (US$1,000) .	
Tuna	5,000	4,565	38,863	37,0
Salmon	1,230	1,365	41,624	45,7
Crab meat . . .	511	554	12,658	13,1
Sardine	110	44	782	3
Saury	1,200	1,090	7,464	6,6
Mackerel	1,010	881	6,310	5,8
Other fishery products	3,136	3,014	19,415	19,1
Pet food	1,100	1,014	3,520	3,2
Other food products . . .	6,070	5,616	38,355	36,1
Total . . .	19,367	18,143	168,991	167,3

Note: See Commercial Fisheries Review, June 1964 p. 45.

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SALMON PRICE NEGOTIATIONS:

The Japan Federation of Salmon Fishermen's Associations (NIKKEIREN) in April w negotiating 1965 salmon prices with the Jap nese firms operating motherships. On Apri 16, 1965, NIKKEIREN asked for a 30-percer increase over 1964 prices, claiming that its asking prices were calculated on the basis o what it would cost to build and operate a typ cal steel salmon vessel of 96 gross tons (no ally costs 53 million yen or US$147,000 to build), plus what the Federation considered reasonable profit (10 percent). The mother ship operators claimed they could not poss bly accept the Federation's offer and on Ap 22 countered with an offer amounting to les than a 1 percent increase.

On April 24, NIKKEIREN lowered its de mand and asked for an overall increase of percent over 1964 prices. The mothership operators countered with an offer of a 3-pe cent increase. (Suisan Keizai Shimbun, Ap 23 & 27, 1965.)

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SETTLEMENT REACHED ON 1965 SALMON EX-VESSEL PRICES:

On May 7, 1965, following several weeks of negotiations, the Japan Federation of Sal

Japan (Contd.):

Fishermen's Associations (NIKKEIREN) and the salmon mothership operators reached agreement on the following 1965 salmon ex-vessel prices:

Species	1965 Price		1964 Price
	Yen/Kg.	Cents/Lb.	Cents/Lb.
Red	243.26	30.7	27.4
Chum	131.82	16.6	14.9
Pink	106.60	13.4	11.9
King & silver	143.81	18.1	16.2

Prices agreed upon represent a uniform 11 percent increase over 1964 prices. The negotiations began with NIKKEIREN asking for a 30-percent increase, and the mothership operators countering with an offer amounting to less than a one-percent increase. (Asian Keizai Shimbun, May 9, 1965.)

* * * * *

SALMON MOTHERSHIP FLEET COMPOSITION AND CATCH QUOTA FOR 1965:

A total of 11 Japanese motherships accompanied by 369 catcher vessels (same as in 1964) will participate in Japan's 1965 high-seas salmon fishery. The mothership fleets will have a total complement of 12,048 men. The 11 fleets were scheduled to leave Japan for the salmon fishing grounds in the North Pacific and Bering Sea on May 15, 1965. Their combined catch quota is 45,478 met-

Retrieving a gill net and removing salmon aboard a Japanese gill-netter in the North Pacific.

Japanese Salmon Mothership Fleet Composition in 1965

Name	Vessel Size	Processing Equipment		Catcher Vessels	Crew Complement	
		Canning Lines	Daily Freezing Capacity		Mothership	Catcher Vessels
	Gross Tons		Tons	No.		
Banno Maru	9,048	3	50	35	479	770
Kosei Maru No. 2 . .	9,356	3	Unknown	36	453	792
Kosei Maru	8,571	3	50	35	459	770
Ryuun Maru	8,622	3	20	33	449	726
Hojima Maru	9,612	2	200	30	328	638
Hashima Maru . . .	9,856	3	300	29	362	635
Taiyo Maru	7,149	2	150	36	320	729
Taikyo Maru	7,161	3	150	36	330	730
Taiyo Maru	7,152	3	200	36	350	720
Taikyo Maru	8,033	3	210	31	330	630
Ikusan Maru	10,757	2	150	32	344	704
Total	95,317	30		369	4,204	7,844

Japan (Contd.):

ric tons as compared with 55,000 tons in 1964. (Suisancho Nippo, April 17, 1965; Hokkai Shimbun, May 10, 1965.)

Note: See Commercial Fisheries Review, July 1964 p. 62.

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SALMON MOTHERSHIP CANNED PACK TO BE TRANSSHIPPED DIRECTLY TO GREAT BRITAIN:

Two Japanese firms operating salmon motherships in the North Pacific and Bering Sea are planning on transshipping their factoryship-produced salmon pack directly from the fishing grounds to Great Britain in 1965. By doing so, it is estimated that it will take about 35 days for shipments to reach their destination and cut down shipping time by 30 days. Under the old system whereby the canned pack was hauled to Japan by carrier vessels, unloaded, inspected, and reshipped, it took a minimum of 65 days. (Suisan Tsushin, May 14, 1965.)

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EXPORTS OF CANNED CRAB MEAT, JANUARY-MARCH 1964-65:

Japanese exports of canned crab meat in the first quarter of 1965 totaled 108,082 cases (48 ½-lb. cans), down 3.5 percent from the 111,979 cases exported in the same period of 1964. King crab accounted for about 94 percent of all crab meat exported. The remainder was from kegani, hanasaki, and zuwai crab.

Japanese Exports of Canned Crab Meat by Country, January-March 1964-65

1965	United States	United Kingdom	France	Other	Total
	. . .(No. of cases of 48 1/2-lb. cans) . . .				
Month:					
January	9,643	3,150	8,015	3,807	24,615
February	19,420	2,144	5,598	5,556	32,718
March	26,000	19,065	3,310	2,374	50,749
Total 1st Qtr. 1965	55,063	24,359	16,923	11,737	108,082
1964					
Month:					
January	12,351	13,795	3,400	3,566	33,112
February	17,067	17,465	4,027	4,962	43,521
March	26,224	3,456	3,875	1,791	35,346
Total 1st Qtr. 1964	55,642	34,716	11,302	10,319	111,979

Source: Japan Canned Crab Sales Co.

Packing canned crab meat into cartons aboard a Japanese fact ship in the North Pacific.

The United States and the United Kingdo are the leading markets for Japan's crab m exports. The United States took 50.9 perce of Japan's first quarter 1965 exports, and 2 percent went to the United Kingdom. Fran was the next leading purchaser. (Fisheries Attache, United States Embassy, Tokyo, Ap 30, 1965.)

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CANNED KING CRAB EXPORT PRICES INCREASED:

The Japan Canned Crab Sales Company of May 1965 increased the canned king crab export price (f.o.b. Japan) of fancy ½-pound 48's to US$28.40 a case from $28.15, and fa cy ¼-pound 48's to $17.15 a case from $16. (Minato Shimbun, May 16, 1965.)

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CRAB ENTERPRISE IN CHILE DELAYED:

Two Japanese fishing companies and a trading firm formed a group called the "Ch Committee" to establish a joint Japanese-Chilean venture. The Committee had hope to begin by establishing a centolla crab ent prise in Chile and in late 1964 one of the J anese fishing firms cooperated with Chile surveying the crab resources of that count It is now reported that the Committee has temporarily held up its plans to establish joint enterprise in Chile as it has not yet found a suitable undertaking that the joint company, if established, could engage in o er than crab fishing, the season for which reported short. (Suisancho Nippo, May 15, 1965.)

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Japan (Contd.):

CANNED SHRIMP EXPORTS, MARCH 1965:

Japan's exports of canned shrimp in March 1965 amounted to 11,032 cases (converted to 24½-lb. cans), a decrease of 63 percent from the total exported during the same month in 1964. The March 1965 exports of canned shrimp were down 2,526 cases or 18.6 percent from February 1965.

Japan's Exports of Canned Shrimp by Country of Destination, March 1965

No. Cans Per Case	Size	U.S.	Great Britain	Canada	Other Countries	Total
		(No. of Actual Cases)				
24 1/2-lb.	Small	1,666	4,968	-	404	7,038
48 1/4-lb.	"	-	9	-	-	9
24 1/2-lb.	Tiny	-	-	-	511	511
48 1/4-lb.	"	-	43	-	-	43
24 1/2-lb.	Broken	3,411	-	-	-	3,411
48 1/4-lb.	"	-	20	-	-	20
		(No. of Standard Cases of 24 1/2-lb. Cans)				
Total March 1965		5,077	5,040	-	915	11,032
Exports March 1964		14,262	9,243	2,900	3,087	29,492

Note: Size of can indicates total weight of contents in can.
Source: Japan Canned Crab Sales Co. (Sales agent for canned shrimp.)

The United States and Great Britain purchased the bulk of Japanese canned shrimp exported in March, about equally divided between the two countries. (Fisheries Attache, United States Embassy, Tokyo, May 4, 1965.)

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FISHING PLANS IN BERING SEA:

The Japanese fish-meal factoryship Tenyo Maru (11,581 gross tons) departed Yokohama, Japan, on April 20, 1965, for the eastern Bering Sea where she is scheduled to operate until the end of September. Her production target is 5,000 metric tons of minced meat and 300 tons of fish meal. Tenyo Maru is the first Japanese factoryship to be equipped with facilities to process minced fish meat, which is used to manufacture fish sausage and fish cake. Alaska pollock will be used. Two other major fishing firms are said to be showing active interest in entering this type of venture. (Suisan Keizai Shimbun, April 21, 1965.)

The Japanese fish-meal factoryship Hoyo Maru (14,111 tons), accompanied by 29 catcher vessels, departed Hakodate, Hokkaido, on

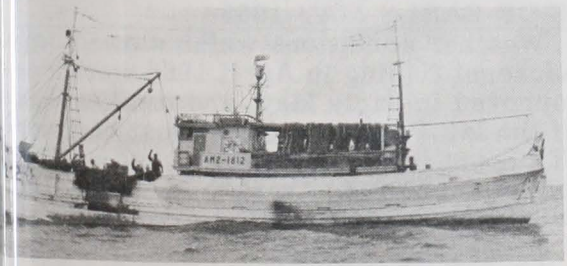

Fig. 1 -- Japanese trawler attached to fish meal factoryship Tenyo Maru.

Fig. 2 - Fish meal factoryship Tenyo Maru--port side of main deck forward of deckhouse.

Japan (Contd.):

April 22 for the eastern Bering Sea. Scheduled to operate in Bering Sea bottomfish grounds until September 21, she has a production target of 13,500 metric tons of fish meal, 2,900 tons of fish solubles, 1,300 tons of oil, and 4,800 tons of frozen fish. (Suisan Tsushin, April 23, 1965.)

The factoryship Seifu Maru (8,269 gross tons) was scheduled to depart for the waters off Cape Olyutorski in the Bering Sea about May 15 to fish primarily for herring.

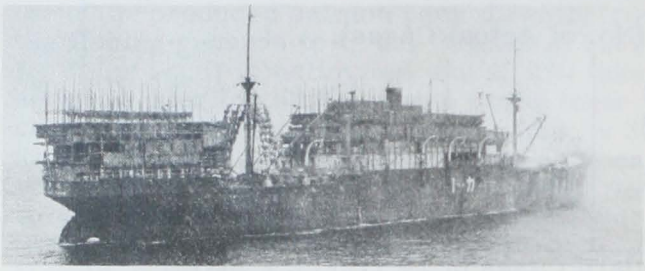

Fig. 3 - King crab factoryship Tokei Maru.

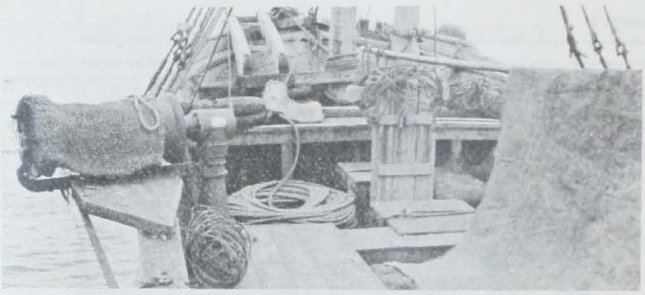

Fig. 4 - Hoisting gear in bow of trawler attached to factoryship Tokei Maru.

The two Japanese king crab factoryships operating in Bristol Bay were doing well and averaging 10.1 crabs per shackle as compared to 10 crabs per shackle last year. As of April 25, the Tainichi Maru (5,858 gross tons) had produced 22,113 cases as compared to 18,769 cases for the same period last year, and the Tokei Maru (5,385 gross tons) 23,730 cases as compared to 21,827 cases a year ago. (Suisan Tsushin, April 27, 1965.)

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PLANS TO PRODUCE MINCED FISH ABOARD FACTORYSHIPS OPPOSED BY LAND-BASED PROCESSORS:

Minced fish processors and local fishermen in Hokkaido were in an uproar over the plans of several large Japanese fishing firms to produce factoryship-processed minced fi (used in the manufacture of fish cake and sa age). It was said that one of Japan's largest fishing companies plans to produce 5,000 me ric tons of minced meat in its 1965 Bering Sea factoryship operations and another plan to produce 2,000 tons. The Hokkaido proces sors and fishermen contend that such factor ship processing would seriously jeopardize the local minced fish industry. They have p titioned their prefecture governor for suppo and were also planning to appeal to their Di representatives to forestall such operation In 1964, the Hokkaido processors reportedl produced about 20,000 tons of minced fish. (Nihon Suisan Shimbun, May 3, 1965.)

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FISH MEAL MARKET TRENDS, 1965:

The three major Japanese fishing firms which will be operating fish-meal factorysh in the Bering Sea in 1965, were planning to confer with each other over the establishm of a standard price for factoryship-produce fish meal before starting negotiations with livestock producers.

The demand for fish meal in Japan has i creased greatly despite higher prices. In 1964, 105,000 metric tons of fish meal were imported by Japan and imports are expected to increase to 148,000 tons in 1965. The standard price per metric ton for fish meal in 1963 was 62,500 yen (US$174), and in 196 60,500 yen ($168). Fish-meal production fr the Japan-Soviet joint fish-meal operation i the Okhotsk Sea in January-March 1965 was sold in Japan for 63,750 yen ($177). The three Japanese companies were reported to be seeking at least 64,000 yen ($178) for the summer 1965 fish-meal production. (Suisan cho Nippo, May 7, 1965.)

Note: See Commercial Fisheries Review, June 1965 p. 61.

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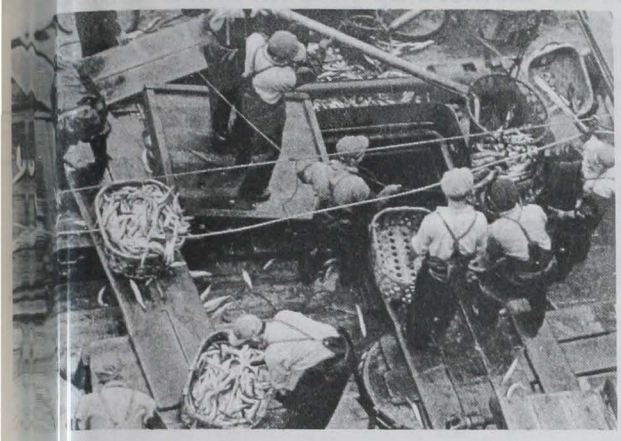
MACKEREL FISHING AND PRICE TREND AS OF EARLY MAY 1965:

Weather conditions which slowed Japan mackerel fishing in April 1965 were repor improved in early May, and mackerel fish off the Izu Peninsula (southwest of Tokyo) a off Choshi (east of Tokyo) picked up consid ably since May 7. On that day, packers in Yaizu area were reported paying high pric of 33-34 yen a kilogram (US$83-86 a short ton) for $\frac{3}{4}$- to 1-lb. size fish. At Choshi, 1,0 metric tons of mackerel landed on May

Jap (Contd.):



ng mackerel prior to putting it in the vessel's fish hold.

bo ht 23-26 yen a kilogram ($58-66 a short to). On May 10, pole-caught mackerel sold fo 0 yen a kilogram ($76 a short ton), with s -caught fish bringing about 20 yen a kilo- g ($50 a short ton). Choshi packers were r ted actively buying fish. (Suisancho Nippo ay 10, 1965.)

N See Commercial Fisheries Review, June 1965 p. 61.

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M INE OIL SUPPLY AND DISPOSITION, 1 -1964 AND 1965 FORECAST:

dible Marine Oil: The Japanese supply o ible marine oils in 1964 was down about 17 percent from the previous year due to lower production of both fish oil and whale oil. Fish oil output is expected to recover in 1965. Whale oil output, however, will probably continue at a reduced level as a result of Antarctic conservation measures.

Japanese imports of marine oil are small. In 1964, the imports consisted mainly of shark-liver oil.

With supplies reduced, Japanese exports of edible marine oil were down 31 percent in 1964 due mainly to lower whale oil shipments to the Netherlands. Whale oil accounts for most of Japanese exports of edible marine

Table 1 - Japanese Supply and Disposition of Edible Marine Oils, 1963-1964 and 1965 Forecast

rm	Calendar Years		
	Forecast 1965	1964	1963
	. .(1,000 Metric Tons) . .		
S Y:			
ng Stocks, January 1:			
oil and fish-liver oil . . .	7.7	9.9	18.5
le oil	3.9	5.9	5.1
tal opening stocks	11.6	15.8	23.6
tion:			
le oil	99.1	109.1	127.0
oil.	27.0	18.1	24.0
-liver oil.	9.6	8.9	9.3
al production	135.7	136.1	160.3
s	0.5	0.4	0.5
al supply	147.8	152.3	184.4
TION:			
s	84.0	82.8	119.3
tic disappearance	1/	1/	1/

1 available. (The Japanese Ministry of Agriculture and estry estimated that domestic food uses of marine oils in al year 1965 amounted to 49,900 metric tons--17,000 s whale oil and 32,900 tons fish oil--most of which was sumed in the manufacture of margarine and shortening. ddition 2,000 tons of fish oil was consumed for nonfood s.)

Table 2 - Japanese Supply and Disposition of Inedible Marine Oil (Sperm Oil)1/ 1963-1964 and 1965 forecast

Item	Calendar Years		
	Forecast 1965	1964	1963
	. . (1,000 Metric Tons) . .		
SUPPLY:			
Opening stocks, January 1 2/ . .	6.8	7.3	6.5
Production	38.8	45.9	37.8
Imports	-	-	-
Total supply	45.6	53.2	44.3
DISPOSITION:			
Exports	14.4	25.0	3/ 12.5
Domestic disappearance	4/	4/	4/

1/ The Japanese supply of inedible marine oil consists of sperm oil.
2/ Stocks held by oil-processing factories.
3/ Estimated by the Japanese Ministry of Agriculture and Forestry.
4/ Data not available. (The Japanese Ministry of Agriculture and Forestry estimated that domestic use of sperm oil in fiscal year 1965 amounted to 24,400 tons.)

Table 3 - Japanese Imports of Marine Oils, 1963-1964

Commodity and Country of Origin	1964	1963
	. . (Metric Tons) . .	
EDIBLE MARINE OIL:		
Shark-liver oil:		
Republic of China	38	76
Hong Kong	53	19
Norway	86	49
Spain	120	-
Other countries	27	5
Total shark-liver oil	324	149
Other fish-liver oils	25	69
Fish oil:		
Peru	-	271
South Africa Republic	-	1
Total fish oil	-	272
Whale oil:		
United States	2	10
Total edible marine oils . .	351	500
INEDIBLE MARINE OIL:		
Sperm oil:		
United States	10	7

Source: Japanese Customs Bureau, Ministry of Finance.

Japan (Contd.):

Table 4 - Japanese Exports of Marine Oils, 1963-1964

Commodity and Country of Destination	1964	1963
	. . . (Metric Tons) . . .	
EDIBLE MARINE OIL:		
Whale oil:		
Netherlands	25,119	54,690
United Kingdom	20,974	27,880
West Germany	15,901	15,685
France	13,111	13,564
Belgium	5,463	5,080
North Korea	130	226
United States	9	-
Australia	-	301
Total whale oil	80,707	117,426
Fish oil:		
United States	135	-
South Korea	162	90
Other countries	-	24
Total fish oil	297	114
Cod-liver oil:		
United States	617	748
Other countries	362	314
Total cod-liver oil	979	1,062
Shark-liver oil:		
All countries	121	17
Unclassified fish-liver oils:		
United States	225	293
Norway	124	33
Other countries	321	281
Total unclassified fish-liver oils	670	607
Unclassified edible marine oil	-	31
Total edible marine oil exports	82,774	119,257
INEDIBLE MARINE OIL:		
Sperm oil:		
United States	6,633	7,532
Netherlands	13,609	1/
United Kingdom	2,540	3,853
France	2,130	-
West Germany	96	2,302
Other countries	2	323
Total sperm exports	25,010	1/

1/Data not available.
Source: Japanese Customs Bureau, Ministry of Finance.

oil, and the leading buyers are the Netherlands, the United Kingdom, West Germany, and France.

Inedible Marine Oil: Japanese production of sperm oil increased in 1964, but is expected to decline in 1965. Complete data on Japanese exports of sperm oil is not available, although estimates indicate the exports increased in 1964. (Agricultural Attache, United States Embassy, Tokyo, April 21, 1965.)

Note: See Commercial Fisheries Review, Aug. 1964 p. 74.

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WHALING OPERATIONS IN NORTH PACIFIC IN 1965 CONDUCTED JOINTLY BY TWO JAPANESE FIRMS:

Two Japanese fishing firms will conduct joint whaling operations in the North Pacific Ocean in 1965. One of those firms will operate the mothership Nisshin Maru No. 3 (23 gross tons) which has been assigned a catch target of 1,640 sperm whales. Accompanying that firm's mothership are 1 scout vessel and 6 catcher boats. The other firm will operate the mothership Kyokuyo Maru (11,448 gross tons) accompanied by 2 freezer factoryships (Kyokurei Maru of 9,943 gross tons and the Koyo Maru of 7,658 gross tons), 7 catcher boats, and 3 carrier vessels. Her product target is 534 blue-whale units (30 blue whale

Fig. 1 - Japanese whale catcher vessel in North Pacific

Fig. 2 - Flensing sperm whale aboard a Japanese factory-mother ship in the North Pacific.

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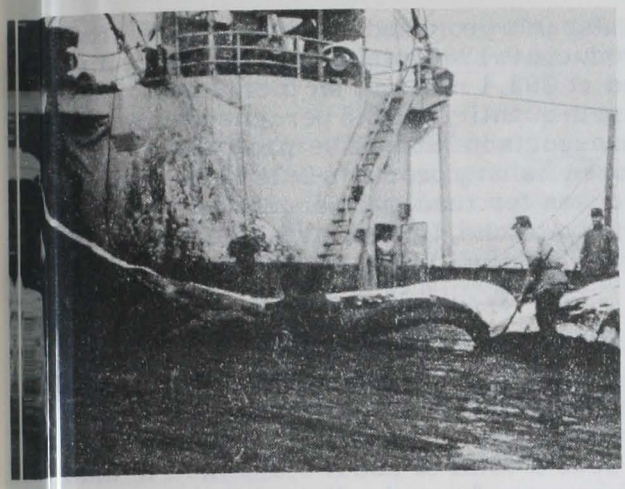


Fig. 4 - Strip of whale blubber and skin being hauled to foredeck for chopping.

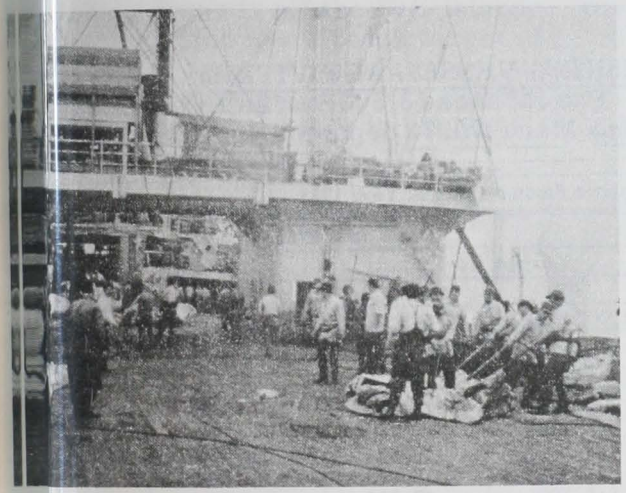


Fig. 4 - Cubing whale blubber strips in foredeck area of factory-mothership.

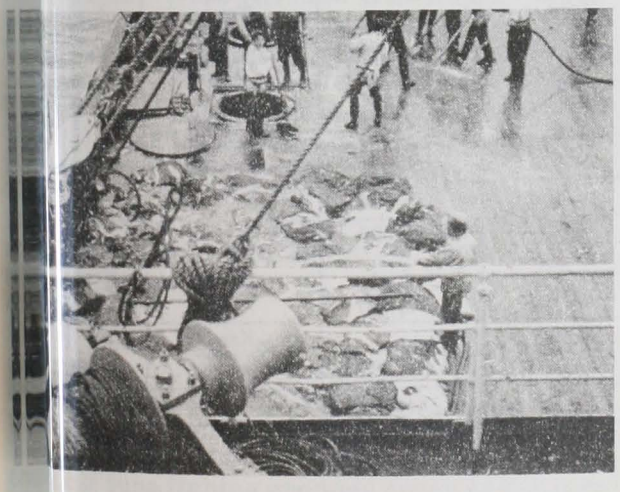


Fig. 5 - Sperm whale meat ready for freezing.

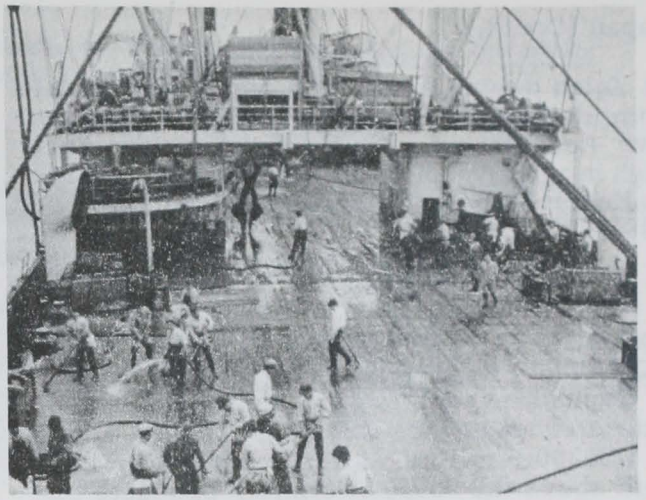


Fig. 6 - Washing down the deck of Japanese whaling factory-mothership in North Pacific.

680 fin whales, and 1,200 sei whales). Both mothership fleets were scheduled to depart Japan on May 20, 1965. (Suisan Keizai Shimbun, April 18, 1965.)

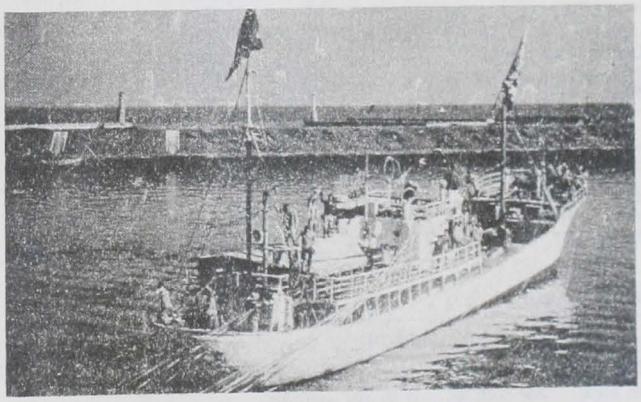
* * * * *

YAIZU FISHERY LANDINGS, APRIL 1965:

A total of 18,720 metric tons of fish valued at 1.9 billion yen (US$5.3 million) was landed

Yaizu Fish Landings and Ex-Vessel Value, April 1965

	Quantity		Ex-Vessel Value		Ex-Vessel Price Per Ton	
	1965	1964	1965	1964	1965	1964
	(Metric Tons)		(US$1,000)		(US$)	
Tuna:						
Bluefin	7,011	7,384	2,734	2,567	390	348
Albacore	4,684	1,959	1,469	654	314	334
Skipjack	2,646	2,558	724	609	274	238
Mackerel	3,711	4,733	377	372	102	79
Other	668	834	178	178	267	213
Total	18,720	17,468	5,482	4,380		



Japanese tuna long-liner leaving Yaizu, principal tuna port, for the the Indian Ocean fishing grounds.

Japan (Contd.):

at Yaizu during April 1965, according to data compiled by the Yaizu Fishermen's Cooperative Association. This marks a new April high in quantity and value for that port. (Suisan Keizai Shimbun & Suisancho Nippo, May 11, 1965.)

* * * * *

EXPORT TARGETS FOR FISHERY AND AQUATIC PRODUCTS, FISCAL YEAR 1965:

Japan's export target for fishery and aquatic products in fiscal year 1965 is valued at US$299.9 million, an increase of 3.0 percent above the value of similar products exported in 1964. Canned fishery products account for 42.0 percent of the total value, frozen and fresh products 36.0 percent, cultured pearls 19.0 percent, salted and dried products 2.0 percent, and agar-agar 1.0 percent.

The proposed exports of canned fishery products in 1965 of 12.2 million cases valued at $127.1 million is an increase of 5.9 percent in quantity and a 0.6 percent decrease in value as compared with exports during the previ year.

Japan's proposed exports of frozen fisher products in 1965 total 279,050 metric tons val ued at $92.4 million, an increase of 7.4 per cent in quantity and 8.5 percent in value abov the exports in 1964. The proposed exports frozen fishery products in 1965 show sharp i creases for tuna, salmon, and shrimp. (Fis eries Attache, United States Embassy, Toky April 30, 1965.)

* * * * *

1965 IMPORTS OF SALMON ROE FROM U. S. AND CANADA:

A number of Japan's large fishing firm have made arrangements to import into Jap in 1965 a total of about 1,500 metric tons o salmon roe from the United States and Can da. (Minato Shimbun, May 9, 1965.)

* * * * *

FISHING VESSEL ACTIVITIES:

The Japanese 3,500-ton stern trawler Ake bono Maru No. 72 departed Kurihama, Kana

Japanese Export Targets for Fishery and Aquatic Products, Fiscal Year 1965

Product	FY 1965 Export Target Qty.	FY 1965 Export Target Value1/	FY 1964 Export Target Qty.	FY 1964 Export Target Value1/	FY 1964 Actual Exports Qty.	FY 1964 Actual Exports Value1/
	1,000 Cases	US$1,000	1,000 Cases	US$1,000	1,000 Cases	US$1,00
Canned Fish:						
Tuna	5,000	38,863	4,450	37,513	4,565	37,002
Salmon	1,230	41,624	1,395	43,962	1,365	45,703
Crab meat	511	12,658	438	11,004	554	13,118
Sardines	110	782	100	780	44	356
Saury	1,200	7,464	1,650	10,680	1,090	6,684
Horse-mackerel	1,010	6,310	600	3,948	882	5,825
Other fish and shellfish	3,136	19,415	2,590	17,521	3,014	19,192
Total canned fish	12,197	127,116	11,223	125,408	11,514	127,880
	Metric Tons		Metric Tons		Metric Tons	
Frozen Fish & Shellfish:						
Tuna	178,000	64,507	177,804	61,627	156,198	56,607
Swordfish	6,350	4,568	6,800	4,320	6,018	4,329
Salmon	1,500	1,580	1,500	1,940	1,164	1,22
Rainbow trout	1,700	1,500	1,500	1,415	1,690	1,48
Shrimp	1,500	2,250	1,500	2,174	1,235	1,86
Other	90,000	18,000	55,000	13,530	93,461	19,64
Total frozen fish & shellfish	279,050	92,405	244,104	85,006	259,766	85,13
Fresh fishery products	48,000	14,740	55,500	16,095	16,900	5,19
Other Products:						
Salted and dried	4,444	6,100	4,200	5,800	4,397	6,02
Agar-agar	600	2,050	350	1,260	600	2,04
	Kans2/		Kans2/		Kans2/	
Pearls (cultured)	20,500	57,500	19,000	51,300	20,054	55,14
Total value of all products		299,911		284,869		281,43

1/Based on f.o.b. prices in Japan.
2/In kans: One kan equals 8.267 pounds.
Note: Fiscal Year begins April 1.
Source: Export Approval Statistics and Customs Clearance.

apa (Contd.):

a.w Prefecture, April 28, 1965, for the east- r.n ering Sea. (Suisan Keizai Shimbun, A- or.il 9, 1965.)

Te fish-meal freezer-factoryship Soyo Maar (11,192 gross tons) was scheduled to e pat for the eastern Bering Sea on May 15 To ro central Japan. Her production target is 5,000 metric tons of fish meal and 6,000 tons of fr en herring. (Suisancho Nippo, May 7, 1965.)

Te 3,470-ton stern trawler Takachiho Maar presently operating in the Gulf of Alas- ka., s scheduled to return to Tokyo on May 21. uisan Tsushin, May 12, 1965.)

Te 5,043-ton tuna factoryship Yuyo Maru de pa ed Tokyo, May 11, for the South Pacific tuna shing grounds off the Fiji Islands. The facty ship, which has a catch target of 8,000 meet tons of tuna, is scheduled to remain on t fishing grounds for about 116 days. A tottal of 55 catcher vessels is expected to fish for e factoryship.

Te 2,500-ton stern trawler Teshio Maru (co leted in late April 1965) was scheduled to dart Tobata, Fukuoka Prefecture, for the wes African trawling grounds on May 12. (Sui in Keizai Shimbun, May 12, 1965.)

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VE EL CONSTRUCTION, APRIL-MAY 1965:

nstruction of the Japanese stern trawler Shuni Maru (1,902 gross tons) was com- plet in April 1965 and was scheduled to lea for the West African trawling grounds ab May 20. The vessel was built for the Yam guchi Prefectural Fisheries Producers Ass iation. The vessel's specifications are: len 75 meters (246 feet); beam 13 meters (43 t); fish-hold capacity 2,304 cubic meters (81L 0 cubic feet); freezing room capacity 304 bic meters (1,073 cubic feet); daily free g capacity 40 metric tons; cruising spe 12.3 knots; and complement 68 men. (MM Shimbun, May 14, 1965.)

vessel Taikei Maru (212 gross tons), re d to be the first Japanese purse seiner eq d with two power blocks, was com- ple at Ishinomaki, Miyagi Prefecture, on Ma On May 10, the vessel was sent to the sk k tuna fishing grounds south of Hachijo- jim The island is located some 120 miles south of Tokyo. (Suisan Keizai Shimbun, May 14, 1965.)

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VIEWS ON EXTENSION OF NORTHWEST PACIFIC FISHERIES TREATY WITH THE SOVIET UNION:

The Japanese-Soviet Fisheries Treaty, under which salmon and king crab fishing are regulated in the Northwest Pacific, will expire December 12, 1966. Japanese views on extension of the Treaty were summarized in the Japanese periodical Nihon Keizai, May 9, 1965, as follows:

There is a strong possibility that the Japanese-Soviet Fisheries Treaty will be extended without amendment. The usefulness of the Treaty was emphasized in a Joint Communique issued by the Soviet Fisheries Minister and the Japanese Minister of Agriculture and Forestry. Their statement was issued during the Japanese Minister's visit to the Soviet Union in the spring of 1965.

There is some Japanese dissatisfaction with the Treaty. However, Japanese requests for changes in the Treaty might be met by Soviet demands to: (1) equalize the salmon catch quotas (Japan's quota in 1965 was set at 115,000 metric tons, as against 85,000 tons for the Soviets) and (2) exclude king crab fisheries on the west coast of Kamchatka Peninsula from the Treaty on account of the coming into force of the International Convention on the Continental Shelf.

Under the circumstances, the Japanese have adopted a waiting attitude, at least for the time being. In this regard, the reported policy of the Japanese Agriculture-Forestry Minister during his Soviet visit was to discuss revision of the Treaty only if the matter was raised by the Soviets. Apparently the talks between the Japanese and Soviet Ministers did not extend to revisions of the Treaty as their Joint Communique mentioned only the usefulness of the Treaty. (United States Embassy, Tokyo, May 12, 1965.)

Note: See Commercial Fisheries Review, June 1965 p. 42, April 1965 p. 72.

* * * * *

ROLE OF FISHERIES AND AGRICULTURE IN NATIONAL ECONOMY:

Japan, which ranks second to Peru in fish production, is commonly acknowledged as a fish-producing nation, and Japan's national income from fishing in fiscal year 1963 was

Japan (Contd.):

¥387.5 billion (US$1.1 billion). But that income from fishing accounted for only 2.1 percent of the Japanese gross national income in FY 1963, and the number of Japanese (626,000) engaged in fishing constituted only 1.3 percent of the total number employed. However, the income from fishing was substantially higher in fiscal year 1963 (starts in April) than in fiscal year 1962 when it was ¥355.7 billion (almost $1.0 billion).

Agricultural income in relation to gross national income in 1963 was only 9.2 percent, while the number of workers engaged in farming was 25.9 percent of the total employed.

Further, the importance of fishing and agriculture in the national economy is diminishing due to the rapid tempo of the nation's industrial development.

Japan leads the world today in production of ships, cameras, and motion pictures. Her electronic industry ranks second in the world after that of the United States, while her iron, steel, chemical, and watch industries rank third in the world.

Some 53 percent of Japan's total volume of exports is composed of products of the heavy and chemical industries. Exports of fishery products in 1963 totaled $280 million and were estimated to comprise between 5 to 6 percent of total exports. (Japan Report, April 30, 1965; Japan 1964 "White Paper" on Fisheries.)

* * * * *

HEARING ON IMPORTS OF SOVIET POLLOCK FOR FISH MEAL:

The Standing Committee for Audit of Japan's House of Representatives held a hearing on May 12, 1965, to discuss the proposed plans of major Japanese firms to enter into joint agreements with the Soviet Union to import 120,000 metric tons of Soviet-produced Okhotsk Sea Alaska pollock for manufacturing into fish meal and the effect such plans, if approved, may have on the domestic fishery.

Japan's Fisheries Agency Production Division Chief stated that as of that time formal applications to engage in such an enterprise had not been received by the Agency. He expressed belief that the pollock resources off the Hokkaido coast and those off the west Kamchatka coast were distinct, and that the resources off west Kamchatka would not li ly be in danger unless large-scale operati were conducted.

The Ministry of Agriculture and Forest Parliamentary Vice-Minister stated he hop to see the use of Soviet-caught Alaska poll limited to 35,000 metric tons.

In January-March 1965, one large Japan firm operated the 14,000-ton factoryship H Maru in the Okhotsk Sea and processed int fish meal 36,300 tons of Soviet-caught Alas pollock. That firm was reported to have s ed a three-year contract with the Soviet Un At least two other firms were said to be in terested in participating in similar ventur with the Soviet Union. (Suisan Keizai Shin May 12, 1965 and other sources.)

Note: See Commercial Fisheries Review, May 1965 p. 76; 1965 p. 83.

* * * * *

PRIVATE KELP AGREEMENT WITH SOVIETS EXTENDED TWO YEARS:

A Japanese-U.S.S.R. agreement to exte the private kelp fishery agreement (origin concluded in 1963) between those two coun for a period of 2 years was concluded at M cow on April 12, 1965.

Under the agreement, Japanese fisherm will be permitted to harvest kelp in a sele area in the Nemuro Straits by paying a stip lated fee to the Soviet Union. One change the original agreement has been made on t harvesting of finfish by Japanese kelp fish men. Previously, they were not permitte harvest anything but kelp but will under th new agreement be permitted to catch up t kilograms (22 pounds) of fish per person p day for personal use. (Shin Suisan Shimbu Sokuho, May 15, 1965 and other sources.)

Note: See Commercial Fisheries Review, October 1964 p. 7

* * * * *

UNDERWATER FISH FARM PROGRAM PLANNED:

The Japanese Fisheries Agency has b actively pushing forward plans to develop tom marine resources through "underwa fish farming." The plan is said to have t firm support of Japan's State Minister wh initially suggested it as a means of devel the bottomfish resources of the Continen Shelf. The Minister was reported to hav greed to the inclusion of a supplementary lotment in the current fiscal year's (April

Jan (Contd.):

L 6-March 31, 1966) budget to initiate the gram.

The Agency plans to collaborate with other anese government agencies in the develop- t and improvement of submersible equip- t, establish a site for training fishermen iving techniques, and map areas on the ontinental Shelf suitable for underwater fish ing. (Suisan Keizai Shimbun, May 15; Suisan Shimbun Sokuho, May 18, 1965.)

日本

Mexico

FISHING CENTER AT TAMPICO:

Although Tampico (on the Gulf of Mexico) is far from being Mexico's largest fishing port, it is an important supplier of fresh fish- products to northeastern Mexico, and it contributes significantly to the export market.

Tampico originally was noted for its blue crabs, which are called "jaibas." Although production has fallen off, Tampico still pro- vides about a third of the Mexican blue crab production, and no visitor would think of leav- ing the city without a taste of this delicacy.

Tampico is also the leading producer of red snapper--the most popular high-priced fish in all Mexico. Annual landings of red snapper in Tampico during 1958-1961 aver- aged 1,222,000 pounds. Some of the red snapper catch is exported to the United States.

The red snapper fleet at Tampico consists of about 80 vessels. Some are diesel-power- ed 6-footers that remain on the fishing grounds as long as a week; others are open launches, powered with outboard motors, that make 1-day trips. All red snapper fishing is done with lines. The larger vessels use large hand-powered steel reels to haul their mono- filament lines.

Tampico's two shrimp-freezing plants ac- counted for 1.4 percent of Mexico's shrimp production in 1963. During 1957-1963, an- nual average landings of shrimp at Tampico were 2 million pounds live weight. Most of the production is exported to the United States as frozen headless shrimp in 5-pound cartons. The small rock shrimp, which are taken in- cidentally with the predominant catch of large

Fig. 1 - Shrimp trawlers moored alongside dock of Tampico freezer plant.

brown shrimp, are cooked, headed, and peeled, and then shipped to the Mexico City market for the shrimp cocktail trade.

Fig. 2 - Some of the 50-vessel Tampico shrimp trawling fleet while in port.

The shrimp fleet at Tampico consists of about 50 trawlers. A few are Texas vessels that came to Tampico years ago before Mexi- can legislation banned imported shrimp ves- sels. Five are steel craft built in Tampico. The remainder are wooden vessels, built mostly in Tuxpan, Veracruz. The shrimp vessels fish close to home and seldom stay at sea as long as 10 or 12 days. The usual trip is no more than 6 days--much less than at most Mexican ports. Tampico shrimp have a reputation for being in very good condition when landed.

As most trawling is done at night, the shrimp fishermen take advantage of daylight hours to hand line for red snapper. The avail- ability of these high-priced fish and the will- ingness of the Tampico shrimp plants to han-

Mexico (Contd.):

dle finfish, contrary to usual practice at many ports, provide all concerned with additional income. The shrimp trawlers at Tampico are individually owned and are manned by members of fishermen's cooperatives.

Tampico considers itself the "oyster capital" of Mexico since it is the closest large city to Laguna Tamiahua, Mexico's largest oyster-producing area. The Mexican total oyster harvest averaged 42 million pounds live weight annually in 1961-63. By volume, oysters rank second only to shrimp as Mexico's most important fishery product. Whereas most of the shrimp is exported, practically all of the oyster harvest is consumed within Mexico. Oyster bars are featured in every seacoast town and in all the larger inland cities--and 87 percent of their supply comes from Laguna Tamiahua, much of it funneled through Tampico. Practically all of the oysters are shipped live to market. Familiar sights at seafood restaurants and "ostionerias" are crews of oyster shuckers with their piles of freshly opened shells.

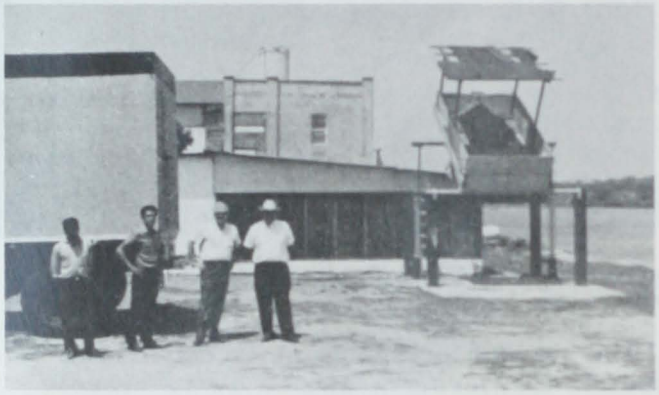

Fig. 3 - Oyster-processing and freezing plant at Tampico. Oysters processed there come from Laguna Tamiahua and are shipped to Brownsville, Tex.

Mexico's only oyster freezing and exporting plant is located in Tampico. The plant packs frozen shucked oysters in plastic containers of 3-pound capacity. The frozen oysters are shipped by truck to Brownsville, Tex.

The Mexican Bureau of Fisheries is constructing a new marine biological station at Tampico because of its importance as a fishery center. The new station, which will replace a temporary laboratory, was scheduled for completion in May or June 1965. (Regional Fisheries Attache, United States Embassy, Mexico, D.F., April 26, 1965.)

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FISHING INDUSTRY OF OAXACA MAKES EXCELLENT PROGRESS:

The Government-controlled Decentralized Fishing Enterprise of the State of Oaxaca in southern Mexico was established and dedicat on May 29, 1964. The purpose of the enterprise is to develop that State's fisheries and relieve the serious shortage of animal protei in the diet of the people of Oaxaca. With a coastline of 500 kilometers (311 miles) and three fishing ports, State officials believed Oaxaca could be self-sufficient in providing fishery products to its people. Since its establishment, the State enterprise has made rapid progress and has made available to th people more fish and fish products as part o their diet.

From the viewpoint of seafood in the diet, the capital city of Oaxaca is typical of dozen of small cities in Latin America. The peopl unable to obtain seafood in quantity were not accustomed to eating it, and probably were n aware of their own protein deficiency. The factors leading to such a situation are not un common. They include the distance from the seacoast and large lakes, and also because the population of 75,000 is too small to provide a profitable market for private enterpri The one developed fishing port of Salina Cru in the State of Oaxaca, although only 170 mil away by good highway, is a shrimp fishing po which produces high-priced shrimp for expo and its food-fish production can all be absor ed by the cluster of nearby cities. The othe fishing ports are tiny undeveloped villages which until recently lacked even poor road connections with the city of Oaxaca. As a re sult, like in so many other places, the only fishery products available were dried shrim imported dried fish, and some local dried fi of variable quality.

The State Governor decided to change th situation and started with a modest progra which could be financed locally and could be expanded as the need grew. He chose as ge eral director of the program a leading citiz who was already operating successful busin es and civic activities. The aim of the pro gram was to supplement the dietary needs o the people with the lowest income by provid high protein food at the lowest cost.

Mexico (Contd.):

Fig. 1 - Note state of Oaxaca, south of Guerrero.

e Oaxaca State Legislature appropriated onn illion pesos (US$80,000), a nominal sum, burough to do the job. A site for a cold-storge plant and retail shop was rented and thelding was completely rebuilt and equipmeinstalled. Three trucks were purchased--a 5n highway truck for hauling fresh fish from thast, a delivery van for hotels, hospitals, annher institutions, and a general service picp truck. Meanwhile, the program's genermrector and others visited fishery produc and distribution plants throughout the coy to obtain ideas. Some dozen young meere recruited and sent to one of the big mats in Mexico City for training in fish hang. They were also trained in truck operm how to clean and freeze fish, wait onomers, and how to operate the freezer andd-storage plant.

State also received advice and help froexico's National Consultative Fisheries Commission and the Bureau of Fisheries, the regional fisheries officer of the Food and Agriculture Organization (FAO), the National Bank for the Development of Cooperatives, and the Secretariats of Health and Marine.

The retail store in Oaxaca, with its freezer and cold-storage plant, is the heart of the project. There people from the city and its surrounding market area can buy a good variety of fresh and frozen fish and shellfish at fixed low prices. The response to the project has been excellent and has been helped by an advertising campaign which is geared to the national "eat-more-fish" program. During the first three months of the program, sales totaled $12,000 and since then have increased considerably.

The people, being accustomed to imported dried fish, have also responded well to new dried fishery products which now constitute a

Mexico (Contd.):

large share of total sales. Experimental packs of canned fish, usually in combination with rice or vegetables and with the traditional seasoning of Oaxaca, show great promise. The dried and canned products will prove particularly useful as the program expands into the smaller towns where refrigeration facilities are lacking.

A secondary objective of the program is to improve the living conditions of the people in the fishing villages, while at the same time insuring a steady supply of fish. The two principal villages of Puerto Angel and Puerto Escondido, each with its surrounding fish camps on coast and lagoon, are about 165 miles from the city of Oaxaca, on separate more or less parallel roads. Under another State program both roads have been improved and the trip over very mountainous terrain can be made in 5 or 6 hours. Until the outset of the program, the facilities of both those villages were primitive. Fishing was done only from canoes, and mostly still is. The fishermen had no assurance of a market and therefore had no incentive. At the beginning, the plant in Oaxaca could seldom obtain enough fish from the two villages and had to send its truck to the Gulf Coast of Veracruz to buy fish it needed.

Plans to improve conditions at both those villages include construction or improvement of small wharves and some channel dredging. The fishermen's cooperative at Puerto Angel has been reorganized, and a new cooperative at Puerto Escondido has been formed. Loans are being arranged with the National Bank for the Development of Cooperatives for larger fishing vessels and for motorizing existing craft. Also, a practical fishing school is planned. A pilot fish-salting plant at Puerto Escondido may later lead to the establishment of others. A local young man has been sent on a scholarship to study at the Institute of Marine Sciences in Veracruz, and on his return will be stationed on the coast to advise the fishermen.

Fig. 2 - A fish-cookery demonstration in a Mexican marketplace. Samples of the dish prepared are distributed together with recipes.

The result so far has been an increase in the total daily consumption of fishery products in the city of Oaxaca from 100 to 500 kilograms (220 to 1,102 pounds), during the first three months, which was believed would continue to increase.

The results of the program were felt to far outweigh the cost which was given as: (1) State appropriation $80,000 with total spent through August 31, 1964, $92,000; (2) investment in plant, including conversion and equipment, most of which had to be imported, $45,000; (3) purchase of three trucks, $15,000; (4) operations through August 31, 1964, including salaries, rent, utilities, purchase of fish, supplies, advertising, and studies at other plants, $32,000; and (5) sale of fish, $12,000. (Regional Fisheries Attache, U. S. Embassy, Mexico, March 30, 1965.)

Note: See Commercial Fisheries Review, April 1964 p. 63.

Morocco

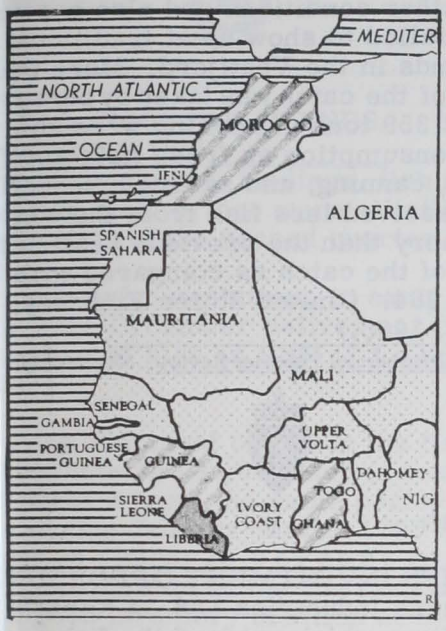
EXTENDED TUNA FISHING VENTURE SHOWS PROMISING RESULTS:

A small fleet of Moroccan tuna vessels in early 1965 sailed as far south as the Ivory Coast, over 2,000 miles from their home port of Agadir. The venture may be a breakthrough in extending the short range of Morocco's fishing fleet. Following is a summary of the expedition as given by one of its promotors and published in La Vie Economique, April 9, 1965:

Seven Moroccan vessels sailing out of Agadir have carried out a tuna fishing expedition of several months duration from Senegal to the Ivory Coast. The project was a cooperative venture between private vessel owners and an Agadir cannery. Although relatively modest in terms of modern commerce

Morocco (Contd.):

fishing, it was a serious experimental effort to improve Morocco's fishing and canning industry. Canned fish is the third most important Moroccan export, but the industry is handicapped by its dependence upon an uncertain supply of fish.



A small Moroccan tuna expedition began to fish for red (bluefin) tuna off Senegal in January 1965 and took a good catch of tuna, mackerel, and anchovy. When the tuna disappeared from Senegalese waters in mid-January, operations were shifted to warmer waters off the Ivory Coast. A British freezership was engaged to accompany the small fleet. By the end of March 1965, a total of 360 metric tons of fish (mostly tuna, mackerel, and anchovy) had been caught.

"The Moroccans are well aware that their vessels must be improved and better equipped for deep-sea tuna fishing. Also needed is a mothership equipped with freezing facilities and radio and radar. Such a mothership accompanying the tuna vessels could provide information on the movements of tuna schools, and could process and store the catch.

"The Moroccan vessels that took part in the extended expedition were inferior to the modern vessels of the other countries operating in the area. In addition, the Moroccan crews could not match the skill of their foreign counterparts. However, that was due primarily to the lack of proper equipment and experience. The Moroccans had no practical experience in offshore tuna fishing along the coast of West Africa. They had to learn their trade on the job. During the expedition, the Moroccans reportedly adapted themselves to their tasks and handled their nets well. They also demonstrated that a Moroccan crew can spend extended periods of time at sea.

The expedition was described as a useful step in Morocco's efforts to develop a modern fishing industry. (United States Embassy, Rabat, April 21, 1965.)

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NEW PLANT TO PRODUCE FISH PROTEIN CONCENTRATE:

Full-scale production of fish protein concentrate (FPC) was scheduled to begin in late May 1965 at the recently completed Moroccan plant at Agadir. The plant is expected to use 50 metric tons of sardines a day for a daily output of 6.5 to 7 tons of FPC. Total production during the 220-day fishing season could reach 1,500 tons, according to an official of the Moroccan Government. The project is a joint enterprise of private capital and the Moroccan Government.

Machinery at the new plant underwent trials during a break-in period in early May 1965. Results were said to be encouraging. (United States Embassy, Rabat, May 4, 1965.)

Note: See Commercial Fisheries Review, June 1965 p. 65.

Nicaragua

FISHING LIMITS OF 200 MILES CLAIMED:

Nicaraguan Presidential Decree No. 1-L, establishing a national fishing zone "between the coast and a line parallel to the same situated 200 nautical miles at sea" on both the Atlantic and Pacific Coasts, became effective on publication in La Gaceta, No. 82, April 8, 1965. The new decree declares that any act of fishing carried out within the "national fishing zone" is subject to Nicaragua's "General Law on the Exploitation of Natural Resources," and its complimentary laws (i.e., the "Special Law on the Exploitation of Fish," of March 3, 1961) and those which may be decreed in the future.

Norway

CANNED FISH EXPORTS, YEAR 1964 AND JANUARY 1965:

Preliminary data show that Norway's total exports of canned fishery products in 1964 were up about 5 percent from the previous year due mainly to larger shipments of canned brisling.

Norwegian Exports of Principal Canned Fishery Products

	1964	1963
	(Metric Tons)	
Brisling	7,046	5,368
Smoked small sild	14,384	14,927
Kippered herring	3,264	3,149
Soft herring roe	1,141	719
Shellfish	1,623	1,547
Other fishery products	3,565	3,881
Total	31,023	29,591

During January 1-23, 1965, Norwegian canned fish exports totaled 2,067 tons (414 tons brisling, 1,230 tons small sild, and 423 tons other fishery products), according to a preliminary report. In the same period of January 1964, exports were 1,926 tons (417 tons brisling, 949 tons small sild, and 560 tons other fishery products).

The Norwegian 1965 fishing season for "big sild" started in February and 14,897 standard cases had been canned as of February 13, 1965, compared with 24,192 standard cases in the same period of 1964. (Norwegian Canners Export Journal, March 1965.)

* * * * *

LOFOTEN COD FISHERY DOWN IN 1965:

Norway's 1965 Lofoten cod fishery during the spawning season yielded a catch of only 19,500 metric tons valued at US$4.2 million, a decrease of 4,100 tons from 1964 and down 9,000 from 1963. The average ex-vessel price (liver and roe included) was 1.55 kroner a kilogram or 9.8 U. S. cents a pound.

The main reason given for the declining catches of spawning cod in Norwegian waters is said to be overexploitation of the Arctic cod stocks in the Barents Sea. (United States Embassy, Oslo, April 24, 1965.)

Note: See Commercial Fisheries Review, May 1965 p. 81.

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WINTER HERRING FISHERY, 1965:

The 1965 Norwegian fishery for winter herring ended on March 27 with a catch of 2,443,000 hectoliters (227,199 metric tons) as compa with 3,078,000 hectoliters (286,254 tons) i 1964. The catch did not fulfill the high ho set at the end of the opening week of the w ter herring fishery in mid-February when 150,000 tons were landed.

The lower 1965 catch was due to unfavo able weather conditions and also because t herring failed to show up at traditional sp ing grounds in the Vestfjord. More than 9 percent of the catch was taken by purse sei About 52,359 tons of herring were sold fo human consumption as fresh fish, and for freezing, canning, and salting. Reduction plants received less fish from the winter ring fishery than the previous year--abou percent of the catch as compared with 81 cent in 1964. (United States Embassy, O April 12, 1965.)

Note: See Commercial Fisheries Review, May 1965 p. 83.

Pakistan

FISHERIES INVESTMENT OPPORTUNITY

Ganisons Industries Ltd., a Karachi im porting firm which entered the fish proces ing and freezing field in 1964, is seeking t participation of a United States investor p pared to invest about Rs 1 million (US$208,0 to expand the firm's shark-liver oil plant. Dr. Mohamed Hussein, Managing Director Ganisons Industries, planned to visit the U ed States in early May 1965 to meet intere ed investors.

Sharks abound in Pakistan waters, yet there are no facilities at present in the co try for processing shark meat, skin, and f This would appear to offer an opportunity a sizable shark-processing industry in P tan, and Dr. Hussein believes there is a m ket for shark-liver oil, frozen shark mea and shark-fin soup in Europe and the Uni States.

An added incentive to foreign investor the Karachi firm would be the possibility exporting fishery products under Pakista Export Bonus Scheme. Under that schem an exporter is entitled to receive import censes amounting to about 30 percent of t foreign exchange earned through exports. emption from certain Pakistan taxes mig also be available to investors in the shar processing industry.

Pakistan (Contd.):

anisons Industries enjoys a good business tation in Pakistan business and governnd circles. (United States Embassy, Karaoc April 21, 1965.)

Pe

MEAL INDUSTRY TRENDS, LY SPRING 1965:

eruvian anchoveta landings, fish meal outnd fish meal prices were all at high levthe start of the second quarter.

eruvian price quotations in early May for July-December delivery of fish meal running as high as US$147 f.o.b. Peruviorts.

eruvian fish meal output in the first quarof 1965 totaled 508,000 metric tons, up nt 2 percent from the same period of 1964. orts during January-March 1965 of 465,000 were up almost 20 percent from the 000 tons shipped in the first quarter of . A good inventory position at the start 65 contributed to the increase in exports.

ut the Peruvian Government remains conned about the long-term prospects for the istry and has issued a decree declaring no additional licenses will be issued for xpansion or construction of new fish-meal s.

cientists at the Peruvian Marine Institute rt warm water continues to move into the ally cold anchoveta fishing grounds. The tion still hanging over the industry is effect the warm water and the heavy of "peladilla" (young fish) will have on vailability of anchoveta when the season s up again in October, after the normal quarter slump. Data through the first of April 1965 point to a catch during the half of the year approaching, if not exing, that of last year. (United States Emy, Lima, May 9, 1965.)

* * * * *

RINE OIL SUPPLY DISPOSITION, 1961-1964:

ish Oil: Peruvian production of fish oil 964 showed only a small increase over 1963. Output in 1964 was held down by the relatively low oil yield of the record anchoveta catch.

Peruvian fish oil production makes up most of the available supply since carry-over stocks are usually small and imports are insignificant (table 1).

Table 1 - Peruvian Supply and Disposition of Fish Oil[1/], 1961-1964

	[2/]1964	1963	1962	1961
	(Metric Tons)			
Supply:				
Opening stocks, Jan. 1	5,917	4,905	2,308	5,439
Production	160,000	154,871	150,784	118,886
Total supply[3/]	165,917	159,776	153,092	124,325
Disposition:				
Exports	110,559	125,477	127,969	102,306
Apparent domestic disappearance:				
Edible consumption	9,000	7,000	5,000	4,500
Industrial use	26,358	21,382	15,218	15,211
Closing stocks, Dec. 31	20,000	5,917	4,905	2,308

1/Does not include data on whale oil and sperm oil.
2/Estimated.
3/Imports are not included since they are relatively insignificant and complete data are not available. The Peruvian Ministry of Finance and Commerce and Customs reported Peruvian imports of inedible fish oil in 1964 as 541 tons of hydrogenated fish oil and 53 tons of cod-liver oil.

Domestic consumption of fish oil is rising in Peru, but exports are still the dominant factor in the industry. Peruvian exports of fish oil in 1964 totaled 110,559 metric tons

Peru (Contd.):

with a value of S377 million (US$14.1 million), as compared with exports in 1963 of 125,477 tons valued at S217 million ($8.1 million). For 1964, that was a decline of 12 percent in quantity, but a gain of 74 percent in value. Rising prices for fish oil prevailed on the world market in 1964.

Data on Peruvian fish oil exports by country of destination are not yet available for 1964, but in 1963 the leading buyer was the Netherlands followed by the United Kingdom, West Germany, and Denmark (table 2).

Table 2 - Peruvian Exports of Marine Oil by Country of Destination, 1963

Commodity and Country of Destination	Quantity	Value	
	Metric Tons	1,000 Soles	US$ 1,000
Fish Oil:			
United States	629	1,812	67.6
Belgium	337	542	20.2
Colombia	7,213	21,659	807.6
Denmark	11,215	15,207	567.0
Ecuador	81	295	11.0
France	2,265	6,216	231.8
West Germany	20,660	33,755	1,258.6
United Kingdom	20,712	33,844	1,261.9
Netherlands	54,851	93,675	3,492.7
Italy	68	295	11.0
Japan	250	844	31.5
Norway	5,082	6,424	239.5
Sweden	2,051	2,749	102.5
Total fish oil	125,477	217,317	8,102.9
Sperm Oil:			
United States	8,579	32,640	1,217.0
Netherlands	500	1,984	74.0
Total sperm oil	9,079	34,624	1,291.0
Whale Oil:			
Netherlands	400	901	33.6

Source: Peruvian Ministry of Finance and Commerce and Customs.

Whale and Sperm Oil: Peruvian exports of sperm oil in 1964 amounted to 4,388 tons valued at S17.1 million ($636,084), as compared with 9,079 tons valued at S34.6 million ($1.3 million) in 1963. Exports of whale oil in 1964 amounted to only 22 tons valued at S134,000 ($4,996), as compared with 400 tons valued at S901,000 ($33,600) in 1963. (Agricultural Attache, United States Embassy, Lima, April 15, 1965.)

Notes: (1) Peruvian Soles 26.82 equal US$1.00.
(2) See Commercial Fisheries Review, Nov. 1964 p. 105, and Aug. 1964 p. 83.

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EXPORTS OF PRINCIPAL MARINE PRODUCTS, 1963-1964:

Item	1964			1963		
	Qty.	Value		Qty.	Value	
	Metric Tons	Million Soles	US$ 1,000	Metric Tons	Million Soles	US$ 1,000
Fish meal	1,426,119	3,845.3	143,481	1,159,300	1/	
Fish oil	110,559	377.3	14,078	125,500	2T7.0	8,[illegible]
Fish (frozen, canned, etc.)	28,943	225.3	8,407	1/	1/	
Sperm oil	4,338	17.1	638	9,079	34.6	1,[illegible]
Whale meal	2,291	5.0	186	1/	1/	

1/Not available.
Note: F.o.b. values converted at rate of 26.8 soles equal US$1.0
Source: Callao Customhouse and other sources.

Portugal

CANNED FISH EXPORTS, 1963-64:

Portugal's total exports of canned fish oil or sauce in 1964 were down slightly fr the previous year. Sardine shipments--a counted for 79 percent of the total canned exports in 1964--showed a small increase But there was a decline in exports of tuna, mackerel, and anchovy fillets.

Portuguese Canned Fish Exports, 1963-1964

Product	1964		1963	
	Metric Tons	1,000 Cases	Metric Tons	1,0 Ca
In oil or sauce:				
Sardines	55,272	2,909	53,484	2,
Chinchards	3,305	174	2,134	
Mackerel	5,349	214	6,323	
Tuna & tunalike	2,097	70	3,887	
Anchovy fillets	3,247	325	4,811	
Others	665	35	437	
Total	69,935	3,727	71,076	3,

Portugal's principal canned fish buyers 1964 were Germany with 14,017 metric to the United Kingdom 9,113 tons, Italy 8,138 tons, France 6,627 tons, the United States 5,990 tons, and Belgium-Luxembourg 4,47 tons. Germany's purchases of canned fis from Portugal in 1964 increased 10 perc from those in 1963. Purchases by the Un Kingdom and France were also up. But p chases by the United States and Italy in 1 were down 16 and 31 percent, respectivel (Conservas de Peixe, February 1965.)

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CANNED FISH PACK, 1963-1964:

Portugal's total pack of canned fish in or sauce in 1964 was up 22 percent from due to an expanded sardine pack. The ga

Portugal (Contd.):

Portuguese Canned Fish Pack, 1963-1964

Product	1964		1963	
	Metric Tons	1,000 Cases	Metric Tons	1,000 Cases
In oil or sauce:				
Sardines	70,209	3,695	49,644	2,613
Orchards	1,542	81	3,363	177
Mackerel	4,211	169	6,736	269
Tuna & tunalike	5,931	196	5,907	197
Anchovy fillets	3,002	300	4,170	417
Others	737	39	600	32
Total	85,632	4,480	70,420	3,705

was partly offset by a smaller pack of chinchards, mackerel, and anchovy fillets. (Conserveiros de Peixe, February 1965.)

South Africa Republic

FISH PROTEIN CONCENTRATE DEVELOPED:

Fish protein concentrate has been developed by the Fishing Industry Research Institute of the South Africa Republic, according to a report in the South African Parliament. The new product is said to be a stabilized fish flour which retains an attractive fish flavor after months of storage. It can be used to prepare fish cakes or, in small quantities, to enrich cereal products. (South African Digest, April 16, 1965.)

Spain

FISHERY TRENDS AT VIGO, JANUARY-MARCH 1965:

Landings and Prices: Fishery landings at the Port of Vigo, Spain, in January-March 1965 totaled 13,552 metric tons valued at 190.8 million pesetas (US$3.2 million), down 49 percent in quantity and 24 percent in value from landings in the last quarter of 1964. As compared with January-March 1964, the first quarter 1965 landings were 13.5 percent less in quantity and the value dropped 16.9 percent. Catches are seasonally low during the first part of the year because of bad weather, and also because sardines and tuna (yellowfin) are scarce on the fishing grounds.

In addition to the fresh fish landings, the freezer-trawler fleet out of Vigo landed 8,550 tons of frozen fish (over 7,000 tons were small hake) valued at 157 million pesetas ($2.6 million). This compares with 3,686 tons of frozen fish landed in the first quarter of 1964. In 1964 a total of 22,444 tons of frozen fish was landed with a value of 404 million pesetas ($6.7 million). This was above the estimate of 20,000 tons made earlier in the year by the Vigo firm handling frozen fish.

A number of fishing vessel operators reported they were having difficulties in getting crews. Fishermen were believed emigrating in growing numbers to better paying jobs aboard foreign vessels.

Canned Fish Industry: There was very little fish canning activity during the period. An indication of the rate at which the canning industry worked (well below 10 percent of ca-

Table 1 - Landings and Average Ex-Vessel Prices of Selected Species at Vigo, January-March 1965 with Comparisons

Species	1965			1964					
	January-March			October-December			January-March		
	Quantity	Avg. Price		Quantity	Avg. Price		Quantity	Avg. Price	
	Metric Tons	Pesetas/Kilo	US$/Lbs.	Metric Tons	Pesetas/Kilo	US$/Lbs.	Metric Tons	Pesetas/Kilo	US$/Lbs.
Octopus	3,834	5.07	3.8	1,126	6.51	4.9	906	7.09	5.4
Horse mackerel	1,617	4.67	3.5	3,239	5.03	3.8	1,934	4.69	3.5
Smoothhound	1,615	38.02	28.8	1,946	31.12	23.5	4,503	26.47	20.0
Cuttlefish	692	11.51	8.7	392	9.37	7.1	484	6.99	5.3

Table 2 - Distribution of Fishery Landings at Vigo, January-March 1965 with Comparisons

	Shipped Fresh to Domestic Markets	Canned	Other Distribution (Smoking, Drying, Fish Meal, etc.) and Local Consumption
	(Metric Tons)		
1st quarter 1965	7,113	1,109	5,330
4th quarter 1964	11,445	8,439	6,735
1st quarter 1964	11,139	890	3,643

Spain (Contd.):

pacity) was the amount of fish purchased, which was only about 8 percent of the total landings for the quarter.

The marketing situation was somewhat improved during the first part of 1965. This was probably due to the increase in the rate of tax rebate on exports from 6 percent to 11 percent of the net value of the merchandise exported. That measure was implemented early in 1965, and was made retroactive to July 1, 1964. (United States Consulate, Vigo, April 19, 1965.)

Note: See Commercial Fisheries Review, March 1965 p. 90.

Sweden

FISH MEAL AND MARINE OIL INDUSTRY TRENDS, FISCAL YEARS 1963/64 AND 1964/65:

Fish Meal: Imports account for the bulk of the Swedish fish meal supply. Shipments were up sharply from Norway, Iceland, and Denmark in 1964, although Peru continued as the leading supplier. Most of the Swedish meal supply is used for animal feed. Dem is increasing because of the expansion of broiler industry.

Marine Oils: Sweden is also dependen foreign sources for the bulk of her marin

Table 1 - Swedish Supply and Disposition of Fish Meal, Fiscal Years 1/ 1963/64 and 1964/65

Item	2/ 1964/65	1963/64
	. . . (1,000 Metric Tons) . . .	
SUPPLY:		
Production	7.5	7.1
Imports	32.0	30.8
DISPOSITION:		
Exports	1.0	0.2
Domestic consumption (animal feed)	40.5	37.7

1/Period from July 1 to June 30.
2/Estimated.

Table 2 - Swedish Imports of Fish Meal, Calendar Years 1963-1964

Commodity Country of Origin	1964	1963
	. . . (Metric Tons)	
Herring Meal:		
United States	16	-
Norway	10,108	3,133
Denmark	4,785	2,422
Iceland	912	20
Peru	99	-
Total herring meal	15,921	5,575
Unclassified Fish Meal:		
United States	270	195
Denmark	290	410
Iceland	5,121	1,338
United Kingdom	343	688
Chile	-	3,542
Peru	17,274	18,139
Norway	270	-
Canada	49	-
Total unclassified fish meal	23,617	24,312

Table 3 - Swedish Supply and Disposition of Edible Marine O Fiscal Years 1/ 1963/1964 and 1964/1965

Item	2/ 1964/63	196
	. . (1,000 Metric Ton	
SUPPLY:		
Opening Stocks 2/, July 1:		
Whale oil	1.5	
Herring oil	1.0	
Other marine oils	11.8	
Production (herring oil)	4.5	
Imports:		
Whale oil	-	
Other marine oils	40.0	
Total supply	58.8	
DISPOSITION:		
Exports	3/	
Domestic Disappearance:		
Food uses (all marine oils)	26.0	
Other disappearance (all marine oils)	3/	
Closing Stocks 2/, June 30:		
Whale oil	0.5	
Herring oil	0.5	
Other marine oils	17.0	

1/Period from July 1 to June 30.
2/Estimated.
3/Not available.
Note: Production and imports are stated on a crude oil bas The quantity used for food is stated in terms of refined oi Stocks include crude and refined oils.

Table 4 - Swedish Imports of Marine Fats and Oils, Calender Years 1963-1964

Commodity and Country of Origin	1964
	. . . (Metric Tons)
Whale Oil, Raw:	
Norway	-
Herring Oil, Raw:	
Norway	2
Denmark	616
Iceland	-
West Germany	798
Total herring oil	1,416
Medicinal Oils:	
Norway	2,059
Denmark	92
Iceland	283
Japan	-
West Germany	72
United Kingdom	26
Total medicinal oils	2,532
Hydrogenated marine fats and oils	340
Unclassified Marine Oils:	
United States	24,768
Norway	189
Denmark	44
West Germany	4,064
Peru	-
Iceland	1,659
Total unclassified marine oils	30,724

Sweden (Contd.):

supply. Imports from the United States have become increasingly important in recent years as shipments from other countries have declined sharply. United States shipments also declined in 1964, but still accounted for over 70 percent of total Swedish marine oil imports.

Swedish import taxes on edible marine oil (animal or vegetable oils) in early 1965 totaled 84 ore a kilo (7.4 U.S. cents a pound), as compared with import taxes a year earlier totaling 75 ore a kilo (10.2 U.S. cents a pound).

In fiscal year 1963/64, the Swedish margarine industry consumed 24,274 metric tons of refined marine oil, which was 95 percent of the total edible marine oils used by the domestic food industry. Most of the remaining 5 percent went into baking aids and lard.

Table 5 - Swedish Exports of Marine Fats and Oils, Calendar Years 1963-1964

Commodity and Country of Destination	1964	1963
	(Metric Tons)	
Herring oil, Raw:		
Norway	3,461	2,941
Other countries	209	90
Total herring oil	3,670	3,031
Hydrogenated Marine Fats & Oils:		
United States	25	-
Norway	1,826	2,012
Denmark	5,289	5,462
Finland	1,246	678
United Kingdom	3,498	2,120
Ireland	1,170	2,019
France	500	634
Australia	756	928
Czechoslovakia	-	1,313
Other countries	439	1,225
Total hydrogenated marine fats and oils	14,749	16,391

Sweden maintains a sizable export trade in hydrogenated marine fats and oils. Leading buyers are Denmark, the United Kingdom, Norway, Finland, and Ireland. Raw herring oil is also exported by Sweden, mainly to Norway. (Agricultural Attache, United States Embassy, Stockholm, April 15, 1965.)

Note: Commercial Fisheries Review, June 1963 p. 90.

Taiwan

FISHERIES TRENDS IN 1964:

Landings in 1964: Taiwan's fishery landings in 1964 totaled 376,398 metric tons, an increase of 7.3 percent over 1963. In 1964 there were increases in all of Taiwan's fisheries except the outer coastal fishery which dropped 12.7 percent from the previous year.

Taiwan's Fisheries Production, 1963-64

Type of Fishery	1964	1963
	(Metric Tons)	
Offshore and deep-sea fisheries	126,765	119,880
Inshore coastal fisheries	161,151	144,023
Outer coastal fisheries	32,191	36,854
Fish culture	56,291	49,972
Total	376,398	350,729

The total fish production target for 1965 has been set at 388,000 tons under that country's 4-year development plan.

Fig. 1 - Tuna displayed before auction at Taiwan's Kaohsiung fish market.

Fresh-Water Fish Culture: Taiwan at one time imported from Hong Kong some 15 million Chinese carp fingerlings a year valued at about US$100,000 for stocking fresh-water ponds. The species were grass carp (Ctenopharyngodon idellus), silver carp (Hypophthal-

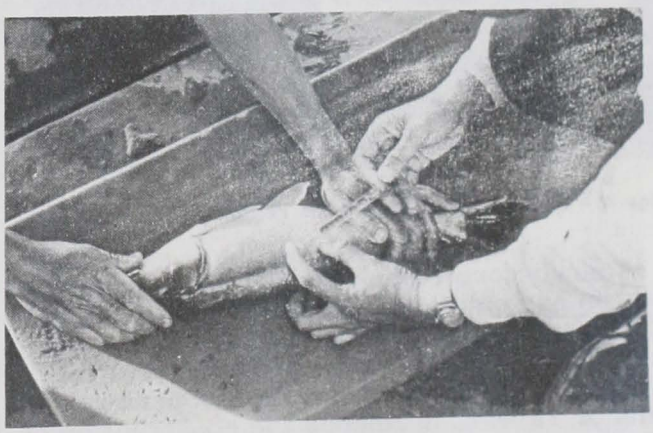

Fig. 2 - Silver carp being injected with pituitary hormone to induce rapid spawning.

Taiwan (Contd.):

michthys molitrix), and big head carp (Aristichthys nobilis). In 1964, fish culturists in Taiwan succeeded in artificially propagating those fish by hormone-induced spawning and hatching the fertilized eggs in running water. It is estimated that 3 to 5 million fingerlings were produced commercially that year. With the artificial propagation technique further refined, it is expected that sufficient fry will be produced in 1965 to meet all of Taiwan's needs.

Vessel Construction: The construction of the thirteen 300-ton tuna long-liners and three 100-ton tuna long-liners financed by a World Bank loan is under way, and most of them are expected to be completed and ready to begin fishing by the end of 1965.

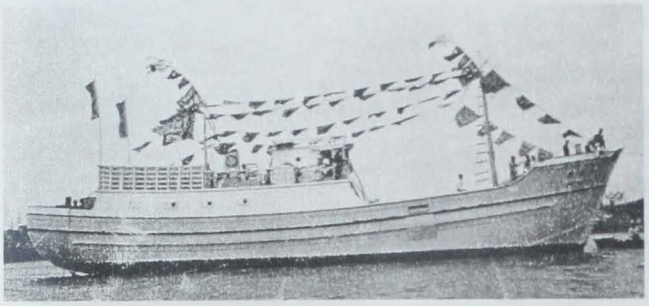

Fig. 3 - Shows launching of a newly built Taiwan tuna long-liner.

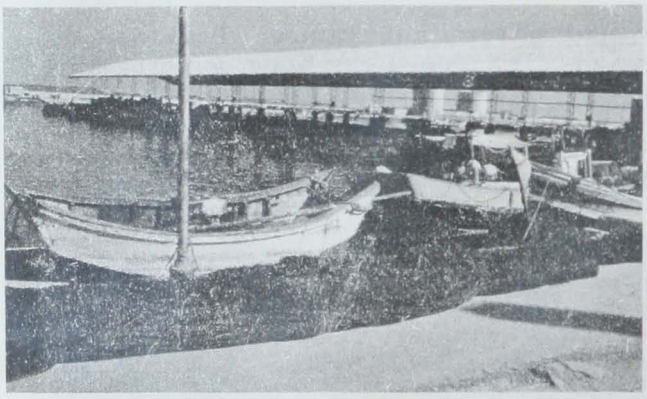

Fig. 4 - Fish market at Makung on Pescadores Island, Taiwan.

A newly formed private fishing firm in Taiwan has obtained a loan of NT$34 million (US$850,000), half of which is from the American-Chinese Joint Commission of Rural Reconstruction and half from the Cooperative Bank of Taiwan, to finance the construction of ten 120-ton tuna long-liners. When completed, they will fish in the Western Indian Ocean using Port Louis (Mauritius), in the Mascarene Islands group, as the base of operation.

Note: See Commercial Fisheries Review, June 1965 p. 78; April 1965 p. 51; April 1964 p. 69.

Tonga Islands

LARGE SHRIMP CAUGHT IN SOUTH PACIFIC LAGOON WATERS:

Large shrimp (heads on) measuring from 4 inches and up were caught for the first time in the lagoon at Tongatapu, the main island of the Tonga Islands group in the South Pacific Ocean. They were caught in a Japanese trammel mesh net in the deeper areas of the lagoon.

The Tonga Government has been interested in the fishing potential of the lagoon and tested the area with that type Japanese net which has been set at various depths. (Pacific Islands Monthly, January 1965.)

U.S.S.R.

JAPAN LAUNCHES SECOND IN SERIES OF FACTORYSHIPS FOR SOVIETS:

A Japanese shipbuilder announced the launching at Yokohama on April 22, 1965, of the fish factoryship Slavjansk (19,000 gross tons), the 2nd of 8 such vessels of the same class for V/O Sudoimport in the Soviet Union. The first of the series was the Spassk launched January 14, 1965.

Both the Spassk and the Slavjansk have the following specifications: length between perpendiculars 160 meters (525 feet), breadth moulded 24 meters (79 feet), depth moulded 14.8 meters (48.5 feet), main diesel engine 5,500 brake horsepower at 125 r.p.m., cruising speed 14 knots, gross tonnage 19,000 tons and deadweight tonnage 10,000 tons.

The Slavjansk will be equipped with modern equipment for fish freezing, canning, and salting. It will also have a reduction plant to process fish meal and oil. The new factory ship is expected to have a daily processing capacity of 350-400 metric tons of herring or 200-250 tons of groundfish such as cod and ocean perch.

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

The Slavjansk is scheduled for delivery to the Soviets in August 1965. (Fisheries Attache, United States Embassy, Tokyo, April 30, 1965.)

* * * * *

FREEZER-TRAWLER "GEIZER" DELIVERED TO SOVIETS BY DANISH SHIPYARD:

The 2,570-ton freezer-trawler M/S Geizer was delivered to Sudoimport, Moscow, April 22, 1965. The vessel is another in a series of 11 freezer-trawlers for the U.S.S.R. being built by a Danish shipyard to the following specifications: length between perpendiculars 91 meters (298.5 feet), breadth 16 meters (52.5 feet) and deadweight tonnage 2,550 to 2,600 tons. The first vessel in the series was the M/S Skryplev launched May 10, 1962. (Regional Fisheries Attache for Europe, United States Embassy, Copenhagen, May 5, 1965.)

M/S Geizer on trial run. Speed on loaded trials was 14 knots.

See Commercial Fisheries Review, June 1965 p. 79; April 1965 p. 87; October 1964 p. 56.

United Kingdom

SUPPLY AND DISPOSITION OF FROZEN PROCESSED FISHERY PRODUCTS, 1964 AND 1954:

British consumption of frozen processed fishery products in 1964 was up 8 percent from 1963, according to a report issued by the White Fish Authority, London. Since 1954, British consumption of frozen fishery products has increased more than fourfold.

Although production of frozen fishery products in Britain has more than doubled since 1954, the domestic supply has been insufficient to meet the demand. As a result, imports have increased sharply, rising from 1,638 long tons in 1954 to 23,439 tons in 1964. British imports of frozen fishery products increased 25 percent from 1963 to 1964, due mainly to larger purchases of the bulk or institutional packs.

British Supply and Disposition of Frozen Processed Fishery Products, 1964 with Comparisons

	1964	1963	1954
	(Long Tons)		
SUPPLY:			
Domestic Production:			
Institutional pack	29,890	27,445	1/
Consumer pack	30,941	30,617	1/
Total domestic production	60,831	58,062	25,929
Imports:			
Institutional pack	14,969	10,451	1/
Consumer pack	8,470	8,297	1/
Total imports	23,439	18,748	1,638
DISPOSITION:			
Domestic Consumption:			
Institutional pack	42,660	39,153	1/
Consumer pack	37,393	34,748	1/
Total domestic consumption	80,053	73,901	17,320
Exports 2/:			
Institutional pack	7,293	7,385	1/
Consumer pack	4,149	4,003	1/
Total exports	11,442	11,388	8,008

1/Breakdown not available.
2/Includes direct exports and also ship's stores (765 tons in 1964 and 922 tons in 1963) and consumption abroad by British Government personnel (646 tons in 1964 and 545 tons in 1963).
Source: British White Fish Authority Economics and Statistics Branch, London.

British exports of frozen processed fishery products have been much more stable, amounting to 8,008 tons in 1954 and increasing only moderately to 11,442 tons in 1964.

Note: See Commercial Fisheries Review, July 1964 p. 79.

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GOVERNMENT SUBSIDY FOR FISHING VESSEL IMPROVEMENT:

The British Government has authorized grants of up to 30 percent of the cost of certain types of improvements to fishing vessels "holding out a clear promise of economic return." Details of the plan were announced April 2, 1965, by the White Fish Authority.

The types of improvement which qualify for assistance are those designed primarily to improve catching capacity and the handling of fish in the interests of quality and efficiency.

The scheme will assist owners who want to convert vessels for boxing fish at sea, and

United Kingdom (Contd.):

will contribute--up to a maximum grant of £1,250 (US$3,500)--to the cost of modifying trawl winches and winch drives.

It will apply to certain engine, propeller, and gear improvements to increase power when towing fishing gear.

The scheme will also apply to the fitting of fish-washing machines where this is not already fleet practice and where it is part of a more comprehensive and ambitious improvement project. It will help a fishing vessel owner insulate his fish holds and provide refrigeration, fit shelter decks, modify fuel stowage arrangements, strengthen his vessel for navigation in ice, and provide de-icing equipment.

It will also assist conversion from long-lining to trawling.

Grants may be approved for up to 25 percent of improvement costs on vessels of 80 feet or more, and up to 30 percent of cost on smaller craft. (Fishing News, London, April 9, 1965, and Fish Trades Gazette, April 10, 1965.)

Republic of Viet-Nam

FISHERIES TRENDS, 1964 AND EARLY 1965:

The commercial fisheries catch in South Viet-Nam increased from 165,000 metric tons in 1959 to 342,775 tons in 1963 and 363,000 tons in 1964, according to preliminary data. The assistance of the United States Agency for International Development contributed to the increased landings. Vietnamese fisheries are believed to have a good potential for further development.

Considerable emphasis has been placed on developing export markets for Vietnamese frozen shrimp, fresh fish, and processed fish in the form of dried, salted, and pickled products. Over the past several years export contracts for mackerel, pompano (spiny food-fish), threadfin, and other Vietnamese fishery products have been signed with commercial distributing firms in Singapore, Bangkok, and Honk Kong. Those fishery export contracts in 1964 had a value in excess of VN piastres 32.6 million (US$448,260). In addition, pilot shipments of frozen shrimp were exported during 1964 to Hong Kong, Japan, France, the Netherlands, Switzerland, and the United States.

Exports of frozen shrimp during February 1965, as reported by the Vietnamese fisheries Directorate, amounted to 36.3 tons (including shipments to the United States of 20.3 tons, France 7.0 tons, Japan 8.0 tons, and Switzerland 1.0 tons). Exports of processed shrimp (other than frozen) in February 1965 included 3.5 tons shipped to France. (United States Embassy, Saigon, April 30, 1965.)

Note: See Commercial Fisheries Review, July 1964 p. 80, and July 1963 p. 96.

Yugoslavia

RESULTS OF TUNA MARKET SURVEY BY JAPANESE:

In 1964 a survey of the Yugoslav tuna market was made by the Japanese Government agency Japan External Trade Promotion Organization (JETRO). The survey report states, in part:

1. Yugoslavia has been purchasing frozen tuna from Japan and Turkey, but since 1961 Turkey has not supplied tuna to that country. In 1964 it was unofficially reported that Yugoslavia bought some tuna from Italy, but these are believed to be Japanese-caught fish.

2. Two firms monopolize tuna imports. One of the firms is tied up with 22 fish processing plants and is the only one engaged in exporting canned fishery products. The other firm operates two canneries, as well as retail stores.

3. Most of the canned fish production is exported. In 1964, only 8 percent of the production was diverted to the domestic market, consisting of low-quality packs, such as mackerel tuna and tuna in vegetable. Apparently, the

Yugoslavia (Contd.):

Government is pursuing a policy of promoting exports to acquire foreign funds so as to pay for the cost of the imported raw material.

Canned fish exports in 1963 totaled 8,,5 metric tons. Of that quantity, 1,324 tons were exported to Czechoslovakia, 1,156 tons to Italy, 953 tons to West Germany, and 934 tons to Austria. In 1964, only 5 percent of canned fish exports went to eastern Europe, with 95 percent going to western Europe. In 1965 it is anticipated that 20 percent of the exports will be destined for the Soviet Union.

To promote exports, the Government is allowing an exchange rate of 750 dinar for one U.S. dollar to pay for imported frozen tuna, 1,215 dinar to one dollar for canned fish exported to western Europe, and 1,140 dinar to one dollar for canned fish exported to eastern Europe. This is comparable to an export subsidy of approximately 62 percent. (Suisan Tsushin, April 27, 1965.)

Editor's Note: The official exchange rate based on the International Monetary Fund is 750 Yugoslav dinars equal one U. S. dollar.

Note: See Commercial Fisheries Review, October 1964 p. 81.

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IMPORTS OF FISH MEAL AND OIL, 1962-1963 AND JANUARY-JUNE 1964:

Fish Meal: Yugoslav imports of fish meal increased sharply in January-June 1964 to 28,511 metric tons. Annual imports of fish meal amounted to only 23,387 tons in 1963 and 2,793 tons in 1962. Peru has been the leading supplier, accounting for total shipments in the first half of 1964 and also in the year 1962. In 1963, Peru supplied 19,387 tons and the United States shipped 4,000 tons.

Fish Oil: Yugoslav imports of inedible fish oil totaled 1,452 metric tons in the first half of 1964, as compared with annual imports of 1,640 tons in 1963 and 1,003 tons in 1962. Norway has been the main supplier with 1,120 tons of the total in January-June 1964 and 1,495 tons in the year 1963 and 670 tons in 1962, according to Yugoslav foreign trade statistics. (Agricultural Attache, United States Embassy, Belgrade, February 23, 1965.)

OCTOPUS A DELICACY IN NEW CALEDONIA

There are plenty of octopuses in Noumea's market in September--that is the season when they are easily found in reef holes at low tide. Even so they bring a good price because many in New Caledonia (French island and territory in Southwest Pacific) consider them a great delicacy.

Preparation of an octopus for the table is a muscle-developing job as it entails thrashing the animal against a rock, preferably immersed coral which is glass-hard, for half an hour to an hour. Without this, you might as well serve up a dish of plastic garden hose, according to the New Caledonians.

When boiled, the meat is white and tender and tastes like spiny lobster. The skin and suckers easily slip off the cooked meat.

Octopus can be served up in many ways. It may be chopped up and served with "vinaigrette" sauce of vinegar, oil, and garlic; or chopped up and served with mayonnaise or the various sauces that go with spiny lobster.

One of the best ways of presenting octopus is in Coquilles St. Jacques--the meat is minced and mixed with bread crumbs, seasoning, and garlic, put into imitation shells and baked in the oven. (Pacific Islands Monthly, September 1964.)