



International

FISH MEAL

PRODUCTION AND EXPORTS FOR SELECTED COUNTRIES, JANUARY-JUNE 1963:

Member countries of the Fish Meal Exporters' Organization (FEO) account for about 90 percent of world exports of fish meal. The FEO countries are Angola, Iceland, Norway, Peru, and South Africa/South-West Africa. Exports of fish meal by FEO countries during January-June 1963 were up 3.0 percent while their total production was up 21.3 percent from that in the same period of the previous year.

Table 1 - Exports of Fish Meal by Member Countries of the FEO, January-June 1963

Country	May		June		Jan.-June	
	1963	1962	1963	1962	1963	1962
.....(1,000 Metric Tons).....						
Angola	2.4	1.5	2.3	2.2	13.9	14.9
Iceland	7.2	8.1	3.2	7.2	37.2	38.4
Norway	7.4	1.5	5.6	1.6	41.6	23.1
Peru	78.1	97.9	84.6	96.9	614.1	559.9
So. Africa (including S.W. Africa)	14.1	23.7	16.1	18.8	72.4	120.0
Total	109.2	132.7	111.8	126.7	779.2	756.3

Table 2 - Production of Fish Meal by Member Countries of the FEO, January-June 1963

Country	May		June		Jan.-June	
	1963	1962	1963	1962	1963	1962
.....(1,000 Metric Tons).....						
Angola	2.3	1.5	2.3	2.5	13.0	14.4
Iceland	4.6	9.7	4.8	5.4	39.6	32.4
Norway	10.6	3.8	19.5	10.7	44.5	30.6
Peru	160.2	121.5	98.7	83.8	701.7	544.4
So. Africa (including S. W. Africa)	33.2	32.0	32.2	23.6	146.9	157.6
Total	210.9	168.5	157.5	126.0	945.7	779.4

During the first half of 1963, Peru accounted for 78.8 percent of total fish-meal exports by FEO countries, followed by South Africa with 9.3 percent, Norway with 5.3 percent, Iceland with 4.8 percent, and Angola with 1.8 percent. (Regional Fisheries Attache for Europe, United States Embassy, Copenhagen, September 18, 1963.)

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WORLD PRODUCTION, JULY 1963:

World production of fish meal in July 1963 was down 27.3 percent from that in the same month of 1962, according to preliminary data from the International Association of Fish

Meal Manufacturers. The decline was due mainly to lower production in Peru, the United States, Iceland, and Norway.

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

World Fish Meal Production by Countries, July 1963				
Country	July		Jan.-July	
	1963	1962	1963	1962
.....(Metric Tons).....				
Canada	5,335	5,914	43,245	49,193
Denmark	11,497	11,700	58,941	50,570
France	1,100	1,100	7,700	7,700
German Federal Rep. .	5,632	7,196	44,581	43,317
Netherlands	1/	500	2/ 1,900	2,900
Spain	1/	2,117	3/10,869	15,829
Sweden	224	10	3,331	2,506
United Kingdom	7,250	7,287	46,099	44,935
United States	34,424	50,436	4/116,198	4/160,947
Angola	1,078	1,190	4/ 14,540	15,558
Iceland	6,316	19,094	4/ 45,884	51,424
Norway	25,255	36,494	69,743	67,178
Peru	39,240	65,716	740,747	610,158
So. Afr. (incl. SW Afr.)	30,487	22,120	178,484	180,316
Total	167,838	230,874	1,382,262	1,302,531

1/Data not available.
 2/Data available only for January-June.
 3/Data available only for January-May.
 4/Revised.
 Note: Belgium, Chile, Japan, and Morocco do not report their fish meal production to the International Association of Fish Meal Manufacturers at present.

World fish meal production during the first 7 months of 1963 was 6.1 percent greater than in the same period of the previous year. Production in 1963 was boosted by heavier landings of anchoveta in Peru. But there was a sharp decline in production in the United States.

Peru accounted for 53.6 percent of total fish meal production during January-July 1963, followed by South Africa with 12.9 percent and the United States with 8.4 percent.

GULF AND CARIBBEAN COMMISSION

SIXTEENTH ANNUAL MEETING HELD IN MIAMI:

The Sixteenth Annual Session of the Gulf and Caribbean Fisheries Institute was held in Miami, Fla., November 11-15, 1963. The site of the meeting on Key Biscayne was near the Institute of Marine Science, University of Miami, making it convenient for those attending the meetings to visit the Institute.

Themes of the sessions held during the five-day meeting included: "The Challenge to U. S. Fisheries," "Shrimp Research Results," "Seafood and Public Health," "Current Fish-

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eries Research," and "The Future for Caribbean Fisheries."

Other organizations which met concurrently with the Gulf and Caribbean Fisheries Institute were the Southeastern Fisheries Association and the National Shrimp Congress.

INTERNATIONAL ASSOCIATION OF FISH MEAL MANUFACTURERS

FOURTH ANNUAL CONFERENCE HELD IN PERU:

The Fourth Annual Conference of the International Association of Fish Meal Manufacturers was scheduled to be held Oct. 28-31, 1963, in Lima, Peru. The Conference was to coincide with the holding in Lima of the 3rd International Fair of the Pacific.

The Peruvian fish meal industry, represented by the Sociedad Nacional de Pesqueria, was host to the Conference.

Over 100 delegates and observers from almost all the fish meal producing countries in the world, covering North and South America, Europe, Africa, and Asia, were expected to attend. The fact that some 60 of those were from countries outside South America emphasizes both the importance of and interest in the Peruvian fish meal industry, the largest in the world, and the importance which members attach to the International Association's Annual Conference. Facilities were provided for visits to the Peruvian fish meal and fishing industries.

The delegates and observers attending represent the leading manufacturers and scientists in the industry. Those attending from outside South America met a large Peruvian delegation as well as many observers from Chile. Representatives from Mexico and the Argentine were invited. Denmark, Germany, Norway, South Africa, Great Britain, and the United States sent large delegations. Delegations were expected to attend from Canada, France, Iceland, the Netherlands, Portugal, Spain, and Sweden. Japan was expected to send observers, and plus official observers from the Food and Agriculture Organization (FAO) of the United Nations, probably from UNICEF, from CORFO in Chile, and from the Fishmeal Exporters Organization (FEO).

The International Association (which was formed in 1959) is the recognized international body representing the world fish meal industry and as such provides a valuable forum for discussions between producers, many of whom are also major exporters or whose countries are major importers as well as producers, concerning the many commercial, promotional, scientific, and technical problems affecting the industry. In this way, while the Association is not concerned with matters relating to price or actual marketing, it helps all producers to ensure a regular well marketed supply of high-quality fish meal, so essential in modern animal nutrition. It is also concerned with the expansion of markets in both developed and underdeveloped countries.

Specific problems which have received attention during the year and which were considered at the Conference included an economic survey of the industry to help ensure steady supplies to consumers and a fair and economic return to producers without unnecessary market fluctuations; a summary of promotional activities in various countries to see how these can be adopted in newer and expanding markets; and further publications on the use of fish meal in animal nutrition. The many scientific questions considered included analytical methods and quality standards where the Association is closely collaborating with a number of national and international bodies; fish flour for human consumption (fish protein concentrate), which is now arousing ever widening interest; and problems of international

feedstuffs regulations. These regulations involve liaison with the European Economic Community (EEC), and other European bodies.

The Association actively collaborates and exchanges information with FAO, WHO, and UNICEF, on a wide range of topics, and is interested particularly in the Freedom from Hunger Campaign and the development of fish protein concentrate. It also collaborates with the European Federation for Animal Technology (FEZ), various official committees in the United States and the EEC, and with the Fishmeal Exporters Organization in the activities of FEO that relate to marketing promotion, exchange of statistics, and similar matters.

INTERNATIONAL CONVENTION FOR THE SAFETY OF LIFE AT SEA

DEPOSIT OF INSTRUMENT OF ACCEPTANCE BY PARAGUAY:

The Instrument of Acceptance by the Government of the Republic of Paraguay of the International Convention for the Safety of Life at Sea, 1960, was deposited with the Intergovernmental Maritime Consultative Organization on September 11, 1963. As of that date, the States which had accepted the Convention were as follows: Haiti, Norway, France, Republic of Viet-Nam, Ghana, Peru, United States, Madagascar, Morocco, Spain, Greece, Japan, Tunisia, Cuba, and Paraguay. (United States Embassy, London, September 20, 1963.)

NORTH PACIFIC FISHERIES CONVENTION

INTERNATIONAL FISHERIES CONSERVATION EFFORT URGED BY PRESIDENT:

President Kennedy called for increased international cooperation in the conservation of fisheries resources in a strong statement issued on September 10, 1963, in which he expressed his support for the abstention principle. The full text of the President's statement, which was issued in conjunction with the opening of the North Pacific Treaty discussions in Tokyo on September 16 follows:

"Ambassador Benjamin A. Smith II will lead a delegation being sent to Japan to discuss with Japan and Canada international arrangements for the conservation and use of fishing resources in the North Pacific Ocean. The discussions, which are scheduled to begin on September 16, represent the second attempt to reach agreement on the questions raised by Japan about the restrictions upon its rights under an existing convention relating to fishing in the North Pacific. The first attempt was made last June.

"The abstention principle, which calls for the fishing restrictions when certain criteria occur, will be the central issue in the new discussions. I believe this principle is sound and reasonable. Without restraints of this nature the nations of the world would run serious risks of depleting fisheries. We have already seen Atlantic halibut fisheries decline from 13,500,000 pounds to 300,000 pounds. In Bristol Bay, the record catch of 24.7 million salmon in 1938 has fallen to a level of 2.8 million. On the other hand, research and careful regulation have restored depleted Pacific halibut fisheries from a low of 40 million pounds in 1923 to an annual average of 70 million pounds.

"It is obvious that unless international conservation agreements are strictly enforced there is grave danger of

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permanent injury to our ocean resources. I hope that it is possible to implement Senate Resolution 392, which called for an international fishery conference so that such damage can be avoided.

"In dealing with the North Pacific fisheries problems we shall be mindful of our responsibility for the preservation of vital fishing resources. When the Convention criteria called for the removal of Bering Sea halibut from abstinence, this was done despite the disadvantage to American fishermen. We shall hope for the same understanding from other nations--to retain the abstinence principle when appropriate--for only in this way will it be possible to reach agreement in the common world interest."

Senate Resolution 392, to which the President referred in his statement, was passed by the Senate on September 20, 1962. It calls for the convening of "an International Conference on the Conservation of Fishery Resources to consider the technical, economic, and scientific problems relating to the conservation, utilization, and regulation of living marine resources in the high seas and estuarine waters of the world," and the encouragement of "government, industrial, scientific, and technical participation in such Conference on as wide a basis as may be practicable. . ."

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CONFERENCE RECONVENES IN TOKYO:

On September 16, 1963, the Second Meeting of the Parties to the International Convention for the High Seas Fisheries of the North Pacific Ocean opened in Tokyo, Japan. The meeting between delegates of the United States, Canada, and Japan is a continuation of an earlier meeting held in Washington, D. C., in June 1963, and is primarily concerned with establishing the understandings necessary for the drafting of a new treaty to cover the salmon and halibut fisheries of the North Pacific.

Immediately after the opening session, it was apparent that the fundamental difference between the positions of the United States and Japan on the principal of "abstinence," which had ended the June meeting in deadlock, remained substantially unchanged. As a result, the proceedings moved at a slow pace. (United States Embassy, Tokyo, September 20, 1963.)

Note: See Commercial Fisheries Review, October 1963 p. 43.



Angola

FISHERIES TRENDS, SEPTEMBER 1963:

The Naval Commandant and Director of the Merchant Marine Commodore in Angola has announced plans to create an "Escola Profissional de Pesca" and a "Casa dos Pescadores." At the same time it was announced that a group of South African busi-

nessmen were planning to visit Luanda to discuss the further development of the spiny lobster fishery. (United States Consul, Luanda, September 26, 1963.)



Argentina

LANDINGS BY OFFSHORE FISHING FLEET HIGHER IN 1962:

In 1962 Argentina's commercial fisheries landings amounted to 92,326 metric tons (about 204 million pounds), an increase of 1.8 percent over the 1961 landings, but 7.7 percent under the record 1960 landings of 99,984 tons. It is believed that the total 1963 fisheries landings will be about 110,000 tons.

There is considerable public and official interest in exploiting Argentina's rich ocean-fisheries resources, developing the present rather small fishing industry and expanding foreign markets. In order to exploit these resources the Argentine Government has prepared a request to the Special Fund of the United Nations for assistance in a US\$5 million 5-year plan for the study of its ocean fisheries and development of its ocean-fishing industry. This will be the early stage of planning for an ambitious \$25-30 million fishing-industry development program. In March 1962, the Argentine Government issued two decrees aimed at stimulating the local fishing industry by means of customs and taxation benefits and government credits.

The use of the 1962 commercial fisheries landings for freezing, salting, canning, fish meal, and fish oil rose to 46,082 metric tons, a 17-percent increase over 1961, while fresh fish consumption declined to 45,939 tons. Exports of fish and fish products rose to 2,532 tons, valued at \$394,395, and imports slipped slightly to 2,560 tons, valued at \$1,022,014.

The convergence of the Antarctic Malvinas Current with the Equatorial Brazilian Current in an extensive continental shelf area off the Argentine coast between parallels 38 and 44 degrees south latitude results in extremely favorable conditions for deep sea trawlers. International fisheries experts estimate the annual possible yield of those waters at 3-3.5 million tons of fish per year, the preponderance of which would be fine species with high world market values.

The deep-sea landings of 1962 represented slightly over one-half the entire ocean landings

Argentina (Contd.):

for the year--only a fractional increase over 1961--but it was the first year that the deep-sea landings exceeded the coastal landings. The increase in the deep-sea landings is expected to continue with the addition of modern vessels in 1963. The relative stagnation of coastal fishing is expected to continue.

The Atlantic coast resort city of Mar del Plata is the center of the Argentine fishing industry and in 1962 accounted for 72 percent of all of Argentina's ocean-fish landings. Mar del Plata is the home port for Argentina's 37 deep-sea fishing vessels, which landed 40,941 metric tons of fish in 1962, and also the home port for 204 old coastal vessels which landed 30,981 tons of the 40,919 tons landed by the entire Argentine coastal fleet of 400 vessels. There are an estimated 3,000 fishermen, mainly of Italian origin, at Mar del Plata.

The "merluzza," similar to United States east coast whiting, accounted for 46 percent of the total ocean landings in 1962 as compared to 44 percent the previous year. The landings of miscellaneous species of fish was second to "merluzza," displacing both the small anchovy and mackerel, the miscellaneous species largely being used for fish-meal production.

Shad (sabalo) composed 68 percent of the total landings of fresh-water fish in 1962, a year in which the fresh-water landings slumped considerably from 1961 and 1960. (United States Embassy, Buenos Aires, September 14, 1963.)



Australia

JAPANESE BUYING AUSTRALIAN SHRIMP:

The Japanese are outbidding United States importers for Australian frozen king shrimp. Also, the Japanese are attempting to tie-up the Australian production for the next three years, reports the July 1963 issue of (Australian) Fish Trades Gazette. Up to 9s. or US\$1.01 a pound f.o.b. has been paid for frozen king shrimp tails by the Japanese, and it is believed they have offered as much as 11s. or \$1.23 a pound f.o.b. These prices are reported to be higher than those offered by United States buyers.

Apart from the higher price, Australians say that the big advantage of dealing with Japan is that exporters are paid when the shrimp are delivered to the ship in Australia. With the United States buyers, shrimp are sent on a consignment basis and exporters carry the risks as well as waiting longer for their money.

This season, Japan is likely to get the entire export pack of Australian king shrimp.

Japan's interest in Australian shrimp has given a spurt to the exploitation of new grounds in Western Australia and the Gulf of Carpentaria.

In Western Australia the industry is being geared to supply Japan with a firm order, worth A£1,340,000 (\$3 million), while the Queensland Government is helping to speed up the development of new grounds in the Gulf of Carpentaria.

In Queensland, late in June 1963, the first commercial fishing expedition to the Gulf of Carpentaria left Bundaberg accompanied by a Government survey party.

The expedition consisted of 8 trawlers which will later be joined by a freezer boat. It was organized and financed by a well-known Sydney firm. The fleet will operate out of Karumba where shore installations have been set up and shrimp will be transported to Cairns or Townsville.

The shrimp fleet is likely to move south during the "wet" season from December onwards.

A Western Australian firm in July 1963 said it had firm orders from Japan for shrimp. The first order of shrimp for Japan was processed by the firm at Geraldton. The shrimp were caught outside the Shark Bay area but landed at that point and transported to Geraldton for processing. The firm was converting 4 spiny lobster freezer boats, fitted with new types of winches and nets, at a cost of A£3,000 (\$6,700) each for deep-water shrimp fishing in the Exmouth Gulf area. A shrimp expert from the eastern States would supervise the initial stages of shrimp fishing in that area. The same company had been working with the Western Australia Fisheries Department and the Department of Industrial Development on plans to develop shrimp fishing north of Shark Bay.

Another firm intends to bring a 126-foot supply and research ship, Kwinana Empress from the eastern States to work with the catching boat north of Shark Bay. The same company also has orders for shrimp from America.

Fremantle Fishermen's Co-operative Society Ltd, had orders for shrimp from Italy. Also, a trial shipment of spiny lobster tails sent this year had been well received and prospects looked good for next season. (Australian Fish Trades Review, July 1963.)

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SPINY LOBSTER FISHERY REGULATIONS FOR WESTERN AUSTRALIA AMENDED:

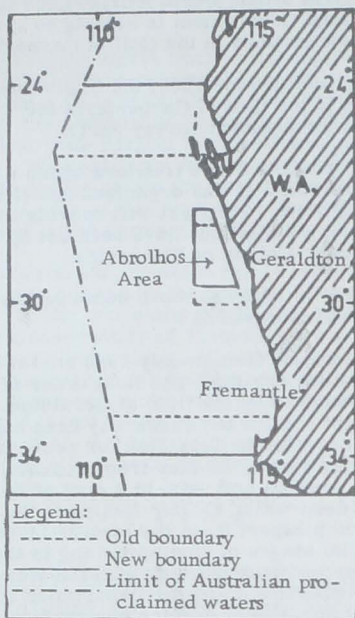
Following investigations in the spiny lobster or crayfishing centers in Western Australia by the Fishermen's Advisory Committee, the Western Australian Government has approved changes in the regulations governing closed seasons, and the areas to be affected by those seasons, for spiny lobster in State waters.

The new regulations will eliminate the previous division of areas by the 30° S. latitude. The closed season formerly began on August 31 in the area south of 30° S. and on August 15 in the area north of 30° S. latitude.

There is now a single closed season between August 15 and November 14 each year in the waters bounded by 24° S. and 34° S. This area differs from the area previously

Australia (Contd.):

subject to closed seasons, which was bounded by 26° S. and 33° S.



The map outlines the new areas affected by closed seasons (shown by solid line) compared with the old areas (dotted line).

As previously, separate regulations will apply to the Abrolhos area. This area has been redefined by moving the southern and northern boundaries northward by 30 minutes of latitude. The eastern and western boundaries will continue to follow the same lines as before, but will extend northward from 27°30' S. to 29°30' S., instead of 28° S. to 30° S. as previously.

The date on which the closed season in the Abrolhos will begin will now be uniform with the date applied outside the Abrolhos, or August 15. The Abrolhos closed season will terminate on March 14 instead of (as previously) the last day of February.

Notices under the Commonwealth Fisheries Act 1952-1959 will be issued to complement the State regulations in the area of proclaimed waters adjacent to those affected by the State regulations. (*Fisheries Newsletter*, September 1963.)

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TUNA FISHERY TRENDS IN SOUTH AUSTRALIA, 1963

A record 3,966 short tons of tuna were landed during South Australia's 1963 tuna

season which ended in June, but production was well below the anticipated 5,000 tons. Although the tuna fleet increased in 1963, the average catch per vessel was 16 percent below that in the previous year.

Good catches were taken at the start of the 1963 season, and by the end of February, landings had reached 1,931 tons--almost double the production during the corresponding period in 1962--but catches were down sharply in April and May. Toward the end of the season, tuna were scattered and hard to hold at the surface. The weather was also poor.

Year	No. of Vessels Participating	Landings (Short Tons)
1963	23	3,966
1962	18	3,710
1961	12	2,481
1960	8	1,536
1959	4	770
1958	3	593

A disappointing tuna season from the point of view of most vessel owners has raised doubt as to the long-term potential of the fishery. At present, the fishery is not subject to any control, and because the industry has enjoyed a boom period over the last few years, the tuna fleet has rapidly expanded. The total vessel capacity of the 1963 fleet was assessed at about 900 tons.

Vessels have been operating on immature fish, but it may be possible with the introduction of new fishing techniques to exploit adult stocks and as a result to greatly increase landings. However, a change from the pole-and-line method to any other technique would involve considerable cost to the fisherman. (*Fisheries Newsletter*, Australia, August 1963.)

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WHALING STATION AT CARNARVON CLOSES:

The Australian whaling station at Carnarvon, Western Australia, ceased operations on August 9, 1963. This left only one active Australian whaling station located at Albany, Western Australia.

The Carnarvon station began baleen whaling on July 6 and up to August 9 this year had taken 68 humpbacks, 3 sei, and one blue whale. To the same date (from June 6) it had taken 24 sperm whales.

The Albany station began baleen whaling on June 13 and up to August 10 had taken 19 humpbacks. To the same date (from March

Australia (Contd.):

10) it had taken 298 sperm whales. (Fisheries Newsletter, Australia, September 1963.)



Brazil

FISHERIES DEVELOPMENT:

With the joint aims of providing additional protein for the Brazilian people and creating new export possibilities, an advisory group has proposed to the Brazilian Ministry of Agriculture a series of measures which are to form the basis for a national policy on fisheries development. Strongly recommended were measures for increasing the yield of coastal and river fisheries; establishing a fish-processing industry in northeast Brazil; and developing tuna, lobster, and shrimp fishing and processing for the internal market and for export. The advisory group also proposed building an offshore fishing fleet over the next 3 years composed of 82 large fishing vessels, 255 medium vessels, and 1,000 vessels in smaller categories.

Offshore and river fishery stocks are a potentially rich but basically undeveloped Brazilian natural resource. The Superintendencia do Desenvolvimento da Pesca (SUDEPE), responsible for administering the development program, will face practical problems in reeducating and coordinating the diverse elements of the traditional Brazilian fishing industry. Providing funds for the program may also be a problem. (United States Embassy, Rio de Janeiro, September 11, 1963.)



Burma

MARKET FOR CANNED SARDINES AND MACKEREL:

During fiscal year 1961/62, Burma imported 8.2 million pounds of canned fish. Of that total, 98.8 percent was supplied by the South Africa Republic. (The United States supplied only 500 pounds.) However, since November 1962, all imports from South Africa have been banned as Burma's contribution to the Afro-Asian boycott due to South African racial policies. Japan has replaced South Africa as the primary supplier of canned fish.

Canned fish is a controlled item in Burma and the Government Civil Stores Committee No. 2 is solely responsible for the import and distribution. Canned fish in tomato sauce and canned fish in oil (sardines and saury packed in oval and tall tins) are popular in Burma. Other types of canned fish are imported in small quantity by hotels and restaurants. (United States Embassy, Rangoon, September 16, 1963.)



Canada

BRANDING IRONS USED TO MARK LARGE FISH IN MIGRATION STUDIES:

As a result of the growing interest in the mackerel shark fishery off Nova Scotia, the Fisheries Research Board of Canada has started a study of shark migrations, since only limited information is available on their movements.

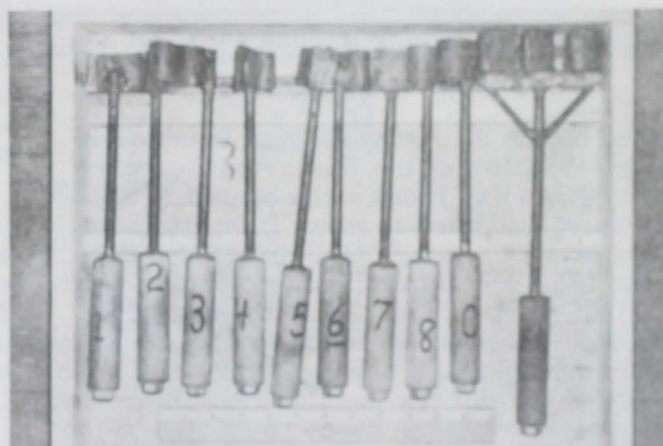


Fig. 1 - Branding irons used to mark sharks. The larger iron at the right has the letters FRB (Fisheries Research Board). Any combination of numbers is possible since each figure is on a separate iron.

In fish migration studies, marking is usually done by clipping off various combinations of fins, or by attaching some kind of tag to the fish. Many of the tags used on large fish are of the dart type, that is, they are held in place by a barb in the flesh, while identifying data are carried in a suspended tube or on a plastic dangler. On large fish, dart tags are relatively small.

Since many sharks are cut clear of fishing gear without being boated, it is important that they be marked conspicuously enough to attract attention in the water alongside the vessel. Scars on the back or sides of large fish are easily seen, so a branding technique was

Canada (Contd.):

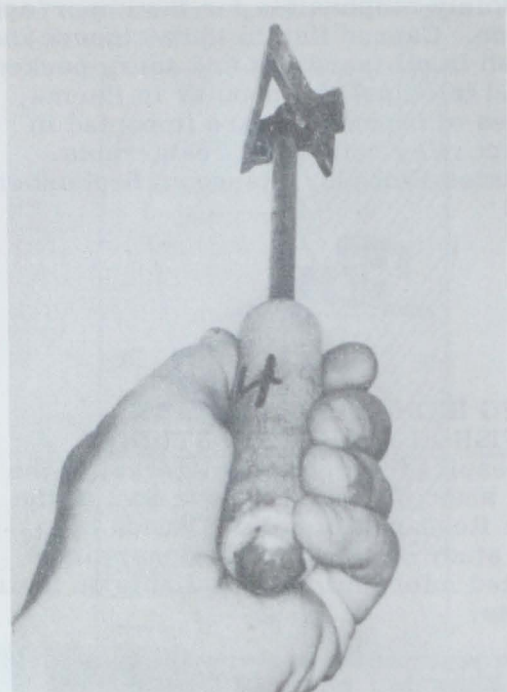


Fig. 2 - Individual branding iron.

devised by the St. Andrews (New Brunswick) Biological Station of the Fisheries Research Board. Branding irons were heated in a gasoline stove and used to mark fish with bold letters about $1\frac{1}{2}$ inches high and $\frac{3}{8}$ inch deep. During 1962, a total of 23 sharks were marked in that manner, and one of the branded sharks was recovered. That fish was marked with both a tag and a brand at Corsair Canyon on southeast Georges Bank and recaptured at Hydrographer Canyon about 150 miles to the southwest a month later. (Canadian Department of Fisheries, January 4, 1963.)



Chile

FISHERIES DEVELOPMENT INSTITUTE TO BE ESTABLISHED:

The Government of Chile and the United Nations Special Fund on August 31, 1963, signed an agreement covering the Plan of Operation for the establishment of a Fisheries Development Institute. The purpose of the project is to provide through a permanent Fisheries Development Institute the technical basis for the accelerated development and rational exploitation and utilization of Chile's fisheries resources. The project,

which originated with the Chilean Government's request in 1960 for technical assistance in the investigation and development of its fisheries resources, will be developed over a 5-year period at an estimated cost of US\$4,958,300. The United Nations Special Fund will contribute US\$1,327,550 toward the financing, and the Government of Chile the equivalent of \$3,630,750. The headquarters of the Fisheries Development Institute and its principal laboratory will be in Santiago. The Institute is to be a legal autonomous entity.

To achieve its purpose, the Fisheries Development Institute will undertake the following program:

(1) To study the nature, distribution, and density of marine resources in Chilean waters, as well as the effects of fishing on stocks presently being exploited; and to conduct related oceanographic work.

(2) To improve fishing methods, vessels, and gear (with special emphasis on small-craft fishermen), through experiments and demonstrations.

(3) To study the marketing of fishery products with particular reference to problems of handling, transportation, and distribution in national and foreign markets.

(4) To draw up quality standards and establish quality controls for fishery products; to train personnel in quality grading; and to establish an inspection service. To assist fishery processing plants to improve products through better handling of fresh fish, better selection of raw material, better packing, and improved factory efficiency.

(5) To raise standards of technical skills of fishermen, processors, research workers, and other persons associated with the fisheries industry by improving the fisheries studies offered by universities and technical schools. To encourage fishery cooperatives.

(6) To improve statistical information in the fishing industry for use in economic and biological studies.

Where appropriate, the studies of the Fisheries Development Institute will be carried out in coordination with the Chilean Ministry of Agriculture, the Chilean Development Corporation (CORFO), universities, and other appropriate agencies. The Institute also will work in collaboration with the Marine Resources Research Institute in Peru, and the National Fisheries Institute in Ecuador, and will collaborate in the work of the Permanent Commission for the Conservation and Exploi-

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tation of the Marine Resources of the South Pacific.

The Food and Agriculture Organization of the United Nations will act as executive agency for the Special Fund which will provide the Project Manager of the Fisheries Development Institute and other experts and consultants required to carry out the approved work program. An administrative council will be appointed by the Government of Chile to guide the work of the Institute.

The Fisheries Development Institute is intended to be a continuing permanent institution operating as an autonomous body. At the conclusion of the 5-year development project, the United Nations Special Fund will transfer the title of its equipment in the Institute to the Government of Chile. (United States Embassy, Santiago, September 25, 1963.)

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PERMITS REQUIRED FOR FOREIGN VESSELS FISHING WITHIN 200-MILE ZONE:

By Decree 453 of July 18, 1963, the Government of Chile limits operations of mother- or factoryship fishing vessels in Chilean waters to the southern zone below the 37° S. latitude (off Coronel, or about 19 miles south of Concepcion).

The Decree provides:

- (1) That only the Ministry of Agriculture may issue fishing permits for motherships or factoryships to operate within the 200-mile zone of Chile's territorial waters.
- (2) That requests for fishing permits for factoryships be accompanied by information as to the nature of fishing operations to be carried out, quantity of fish to be taken, length of time and location in the zone the factoryship expects to operate, date the ship desires to begin operation, actual period for the operations, port of discharge for products processed by the ship, and port where the Chilean inspector should board the factoryship to assess charges on its take.
- (3) That no permit may be granted for factoryships to operate within the 200-mile zone of territorial waters from the northern limit of Chile south to the 37° parallel.

This decree, like Decree 332, is intended to tighten the Government's control over the activities of foreign fishing vessels in the 200-mile zone claimed by Chile as its territorial waters. Strict application of the restrictions placed on operations of foreign vessels may encourage foreign capital to establish fish-processing plants within Chile particularly in view of the concessions and tax privileges available under the Fisheries Law to companies engaged in all phases of the fishing industry. (United States Embassy, Santiago, September 13, 1963.)

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JAPANESE FIRM TO PARTICIPATE IN SURVEY OF FISHERY RESOURCES:

At the request of Chilean fishery authorities, a Japanese fishery company is planning to assist Chile in a survey of Chilean waters. One of the main purposes of the survey is to determine the extent of king crab and hake resources off Chile. Research vessels are expected to be furnished by Chile. (*Shin Suisan Shimbun Sokuho*, September 12, 1963.)



Denmark

LOWER SIZE LIMIT FOR NORWAY LOBSTERS DISCUSSED:

Norway lobsters are caught by Danish fishermen mostly in the northerly part of the Kattegat. They are exported frozen as Danish "baby lobster tails" to the United States (678,000 pounds valued at US\$951,000 in 1962). In early September 1963, the Danish Fisheries Association was determining whether a majority of north Jutland fishermen wished to request the Ministry of Fisheries to lower the minimum size from 15 centimeters (5.91 inches) to 13 centimeters (5.12 inches), the lower limit for Norway lobsters taken by Swedish and Norwegian fishermen. (Regional Fisheries Attache for Europe, U. S. Embassy, Copenhagen, September 11, 1963.)



El Salvador

INCREASE IN DUTY ON CANNED MACKEREL PROPOSED:

As of early September 1963, it was probable that the Salvadoran duty on canned mackerel

El Salvador (Contd.):

would be raised from its preferential rate of US\$5 per 100 kilograms (about 2.268 U. S. cents a pound). The new rate has not been announced but may be near \$35 per 100 kilograms (about 15.876 U. S. cents a pound).

It is believed that canned mackerel is one of the items whose tariff equalization for the Central American Common Market was agreed upon at the technical level at a meeting held at Tegucigalpa, Honduras. The meeting of the Executive Council which was scheduled for August 29 in San Salvador to consider the recommendations of the Tegucigalpa meeting was postponed and was held later in Guatemala. Apparently the recommendations of the technicians were being closely held until they were considered by the Executive Council.

According to an official in the Salvadoran Ministry of Economy, the other countries of the Central American Common Market have already leveled their duty on canned mackerel at a higher rate than that prevailing in El Salvador, and are asking El Salvador to agree to the higher level.

Another official of the Ministry of Economy and one of the members of El Salvador's delegation to the Tegucigalpa meeting stated that although he could not remember the exact figures he knew that the Salvadoran delegation, despite instructions to the contrary, had agreed to higher figures set by the other countries. (United States Embassy, San Salvador, September 6, 1963.)



Faroe Islands

FISHING INDUSTRY TRENDS, 1952-1962, AND OUTLOOK:

Summary: The Faroe Islands, a partly self-governing community within the Danish State, are located in the Atlantic Ocean about 800 miles northwest of Denmark. The Islands' population of 35,000 is almost wholly dependent on fishing. The record Faroese fisheries catch of 143,520 metric tons taken in 1962, mainly cod, came in large part from West Greenland waters with smaller quantities from local Faroese grounds, the Barents Sea, and waters off Iceland and Newfoundland. The herring catch was taken mainly in the

Norwegian Sea. Faroese trawlers as well as long-line and hand-line vessels take demersal fish, while gill-net and purse-seine vessels catch herring. About 6,900 fishermen are engaged in the industry with a declining number employed on foreign vessels. About three-fourths of the Faroese catch is processed into wet- and dry-salted fish and salted herring. Other products are iced and frozen fish. The production of canned fish and fish meal and oil is negligible. The most important exports are dry- and wet-salted fish to Southern European countries and Brazil; iced fish to the United Kingdom; salted herring to European countries; and frozen fish fillets to the United States.

Table 1 - Fisheries Catch by Faroese Vessels, 1952-1962

Year	Demersal Species ^{1/}	Herring	Total
1962	133,665	9,855	143,520
1961	103,193	16,885	120,078
1960	98,011	11,417	109,428
1959	73,505	13,695	87,200
1958	89,069	17,671	106,740
1957	88,550	17,034	105,584
1956	92,648	23,668	116,316
1955	92,503	13,116	105,619
1954	61,828	27,606	89,434
1953	71,694	17,062	88,756
1952	83,298	3,885	87,183
10 yr. average (1953-62)	90,467	16,801	107,268

^{1/}Includes cod, haddock, halibut, ling, plaice, saithe, tusk, porbeagle, Norway lobster, redfish, and catfish.

^{2/}Round fresh weight.

Note: Includes landings in foreign ports.

Fisheries Landings: The record Faroese fisheries landings in 1962 were 19 percent greater than in 1961, the previous record year, and 48 percent over the 10-year average during 1953-1962. Demersal fish--cod, haddock, halibut, ling, plaice, saithe, tusk, porbeagle, Norway lobster, ocean perch, and catfish--made up 93 percent of the catch in 1962. The increase in the 1962 landings was due to a gain in the cod catch which more

Table 2 - Catch of Herring by Faroese Vessels, by Fishing Grounds, 1952-1962

Year	Fishing Grounds			Total
	Faroese	Norwegian Sea	North Sea	
	(Metric Tons ^{1/})			
1962	175	9,680	-	9,855
1961	10	16,875	-	16,885
1960	445	10,972	-	11,417
1959	690	13,005	-	13,695
1958	1,917	15,771	-	17,688
1957	788	16,246	-	17,034
1956	703	22,966	-	23,669
1955	175	12,940	-	13,115
1954	182	27,424	-	27,606
1953	220	16,152	690	17,062
1952	-	3,885	-	3,885

^{1/}Round fresh weight.

Faroe Islands (Contd.):

Species	Fishing Grounds							Total
	Iceland	Faroese	Barents Sea	Newfoundland	West Greenland	East Greenland	North Sea	
	(Metric Tons ^{1/})							
Cod	8,657	6,751	3,109	5,051	92,699	-	-	116,267
Haddock	919	7,041	83	6	13	-	-	8,062
Halibut	80	137	11	-	1	-	-	229
Ling	415	450	-	-	51	-	-	916
Plaice	84	26	-	-	-	-	-	110
Saithe	590	2,494	2	77	31	-	-	3,194
Tusk	614	1,902	6	1	362	-	-	2,885
Porbeagle	-	-	-	797	-	-	-	797
Norway lobster	-	-	-	-	-	-	-	-
Ocean perch	-	-	-	-	204	-	-	204
Catfish	-	-	-	-	-	-	-	-
Unclassified	574	410	17	-	-	-	-	1,001
Total (other than herring)	11,933	19,211	3,228	5,932	93,361	-	-	133,665
Totals (other than herring):								
1961	12,959	21,370	4,291	5,576	57,693	1,304	-	103,193
1960	14,396	19,684	3,509	9,678	50,698	-	46	98,011
1959	9,594	13,097	4,819	7,619	38,371	-	5	73,505
1958	21,691	15,768	4,072	3,939	43,572	-	27	89,069
1957	24,960	13,836	13,889	2,956	32,886	-	23	88,550
1956	18,161	13,704	28,875	101	31,807	-	-	92,648
1955	20,006	13,535	22,939	-	35,982	-	41	92,503
1954	17,075	8,950	9,621	-	26,182	-	-	61,828

^{1/}Round fresh weight.

Note: Includes landings in foreign ports.

than offset a decline in herring landings due to bad weather.

Fishing Grounds: In the past ten years, there has been a strong shift in Faroese fishing effort to the waters off Greenland--mostly West Greenland. Almost 70 percent of the demersal fish catch was taken from Greenland fishing grounds in 1962, as compared with only 38 percent in 1953. The greater catches off Greenland have resulted from the addition of larger, better equipped vessels to the fishing fleet.

Type of Vessel	Total	Average Age	Total Tonnage	Average Size
	No.	Years	(G.R.T./)	
Long Line:				
Steel	48	2	12,650	260
Wood: 20-70 G.R.T. ^{1/}	46	22	1,852	40
Over 70 G.R.T. ^{1/}	14	26	1,495	106
Smacks	47	72	4,659	99
Schooners ^{2/}	12	40	2,226	185
Steam trawlers ^{2/}	8	13	6,247	780
Motor trawlers	6	11	4,147	691
Total	181	-	33,276	-

^{1/}Gross registered tons.

^{2/}Hand-line and long-line vessels.

Disposition of Catch: In the past ten years, the disposition of the Faroese fisheries catch has changed markedly. From a peak of 92.4 percent in 1953, the portion used for curing dropped steadily to only 76 percent in 1962, reflecting market demand and the tendency

of Southern European countries to produce more of their own cured fish. The share of the catch marketed fresh, however, advanced from 6.2 percent in 1953 to 20.5 percent in 1961, dropping back to 16.3 percent in 1962 when lower market prices prevailed in British ports. Between 1953 and 1962, the part of the catch devoted to freezing increased from only 0.2 percent to 7.5 percent, due mainly to the demand for fillets and blocks in the United States.

Year	Landings	Disposition				Reduction (Meal & Oil)
		Fresh Market	Freezing	Curing	Canning	
	(Metric Tons ^{1/})					
1962	143,520	23,407	10,733	109,120	85	175
1961	120,078	24,598	5,749	89,626	80	25
1960	109,428	24,264	4,909	79,678	132	445
1959	87,200	13,182	2,197	69,064	157	600
1958	106,740	15,044	2,789	90,182	25	700
1957	105,584	7,726	1,492	95,428	135	803
1956	116,316	5,861	2,445	107,320	90	600
1955	105,619	7,481	2,095	95,926	42	75
1954	89,434	6,788	759	81,523	364	-
1953	88,756	5,504	147	82,047	263	795
1952	87,183	6,621	120	80,077	365	-

^{1/}Round fresh weight basis.

Note: Includes landings in foreign ports.

Future Production and Markets: The production of dry-salted fish may continue to decline. The large, more desirable sizes of cod are less readily available since Iceland extended its fishery limits. Former importers, such as Spain, are importing more wet-salted

Faroe Islands (Contd.):

cod as well as producing more of their cured fish requirements. Dry-salted fish sales are now limited largely to Brazil where variations in the value of the currency present problems.

Faroese wet-salted fish currently are in good demand even in producing countries such as Norway and Iceland. Faroese exporters do not handle all the wet-salted fish produced by Faroese vessels. Foreign buyers often request that Faroese fishing vessels land their wet-salted fish directly in European ports.

The United Kingdom is practically the sole market for iced Faroese fish. If prices are no more favorable than in 1962, less iced fish will be landed there and more will be processed in the Faroe Islands. The same will be true if British fishery groups block landings of iced fish when Faroese fishery limits are extended on March 12, 1964.

The production of frozen fillets should continue to increase with the bulk going to the United States. Other countries also are becoming more important buyers. Soviet Bloc countries--East Germany, in particular--are taking increasing quantities of Faroese saithe fillets, a cheaper product than cod or haddock. If the British block landings of iced Faroese fish, or if the Faroese exploit more fully the nearby Faroese and Icelandic grounds, the supply of fish for filleting may increase substantially.

Salted herring production varies with the catch, which was poor in 1962. Contracts have been made with Sweden, Denmark, and the Soviet Union for substantial shipments of salt herring from the 1963 production.

Porbeagle production from the present Northwest Atlantic grounds is expected to taper off beginning in 1964 because of diminishing resources. More vessels are expected to enter the fishery from Nordic countries, making it less profitable. The Italian market also is limited in the quantity it can take at profitable prices. At least one porbeagle fishing vessel plans to seek tuna with long lines in the Western Atlantic, the Caribbean Sea, and later off Northwest Africa. If the porbeagle fishery becomes unprofitable, the freezer ships in the fishery will probably operate in Greenland waters, freezing groundfish.

Since the demand for Norway lobsters is good, production may be expected to increase. (Regional Fisheries Attache for Europe, United States Embassy, Copenhagen, October 2, 1963.)



German Federal Republic

FISHING INDUSTRY PROPOSES FREE INTERNATIONAL MARKET FOR NORTH SEA AREA:

The German Fishing Industry Federation has called for a free international market in fish for the entire North Sea area.

A federation spokesman in Hamburg saw the proposed European fisheries union as one which would embrace all European Economic Community (EEC) countries and others with seaboard in the area.

The spokesman suggested that such a union would have a greater economic effect than a common EEC fishing policy, which would have to take into account the entirely different interests of North Sea and Mediterranean fisheries.

The spokesman said that the proposed union would imply cooperation between EEC and the European Free Trade Association (EFTA).

All members would enjoy the same status, and membership would entail full fishing rights for all within each other's territorial waters. Each would have the right to land catches in any harbor in any member country, the spokesman said. (EFTA Reporter, October 1, 1963.)



Ghana

CONTRACTS FOR JAPANESE-BUILT FISHING VESSELS:

A £G5.7 million (US\$16 million) contract for the construction of 10 stern trawlers and 2 carrier vessels for the Ghana Fishing Corporation was signed by Ghana's Minister of Agriculture and a Japanese shipbuilding and engineering firm, on August 6, 1963. According to Ghanaian newspaper reports, 5 of the trawlers will be 1,350 tons each, the other 5 of 1,850 tons, and the carriers 1,200 tons.

Ghana (Contd.):

The first two of the vessels will arrive in Ghana in November 1964. Delivery of the vessels is expected to be completed in 1967 and payments will extend over seven years. (United States Embassy, Accra, August 11, 1963.)

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TWO BRITISH-BUILT STERN TRAWLERS RECEIVED:

Ghana's Minister of Agriculture was the principal speaker at a ceremony at Tema Harbor in Ghana, on August 6, 1963, to welcome two British-built stern trawlers. Purchased from a British shipyard as part of a £G970,200 (US\$2.7 million) contract signed in 1961, the vessels are 127'6" long with 29'6" beams and 11'8" molded depths. They are Diesel-powered and can store 240 metric tons of fish under refrigeration.

In his welcoming speech the Minister stated that the vessels were the first to be delivered to the Ghana Fishing Corporation and would form the nucleus of the Corporation's fishing fleet. Actually, the trawlers are not the "first" deliveries as the British shipbuilding firm also supplied two tuna purse seiners in 1962, but they were later returned to England for repairs and reportedly sold. (United States Embassy, Accra, August 11, 1963.)

Note: See Commercial Fisheries Review, September 1963 p. 92.



Haiti

UNITED STATES FIRM TO ESTABLISH FISHING ENTERPRISE IN HAITI:

A contract to establish a fishing enterprise in Haiti was signed in March 1963, between a New York City wholesale fishery firm and three members of the Haitian Cabinet. The contract was published in the official Haitian Government organ Le Moniteur No. 256, on March 15, 1963, and was in force as a decree as of the date of publication. The decree provides certain exclusive rights and privileges to the United States firm for the ten-year duration of the contract which is renewable at the option of the parties involved. The capital of the new firm to be set up in Haiti will be \$50,000.

Under the terms of the contract, the Haitian Government authorizes the United States firm (1) to engage in the fishing industry and trade on the northern, western, and southern coasts of Haiti, and in frog breeding; (2) the Haitian Government shall lease to the Contractor, land necessary for the development of this enterprise along the coast; (3) install one or more plants in Haiti on all spots where natural sources permit centralized preparation, freezing, storage, packing, and shipping in the coastal area at Port-au-Prince or outside that city; (4) give to the Contractor all facilities and necessary privileges to utilize his own ships, boats, or other means of sea transportation in use in fishing industries. (United States Embassy, Port-au-Prince, August 9, 1963.)



Iceland

EXPORTS OF FISHERY PRODUCTS, JANUARY-JUNE 1963:

During January-June 1963, there was a considerable increase in exports of frozen herring and herring meal as compared with the same period in 1962, according to the Statistical Bureau of Iceland's Statistical Bulletin, August 1963. Exports of fish meal and herring oil showed a considerable decrease in the first 6 months of 1963.

Product	Jan.-June 1963			Jan.-June 1962		
	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	1,411	28,467	660	1,324	25,566	593
Salted fish, uncured	14,446	185,887	4,313	17,403	211,821	4,914
Salted fish fillets	767	8,877	206	817	10,591	246
Wings, salted	1,402	17,499	406	837	9,624	223
Stockfish	3,034	81,538	1,892	4,851	124,240	2,882
Herring on ice	7,224	23,417	543	4,899	17,144	398
Other fish on ice	17,753	90,360	2,096	13,077	59,608	1,383
Herring, frozen	24,212	131,593	3,053	14,717	79,213	1,838
Other frozen fish, whole	1,612	18,698	434	918	11,982	278
Frozen fish fillets	28,668	522,645	12,125	28,328	485,229	11,257
Shrimp and lobster, frozen	180	17,876	415	97	8,522	198
Roes, frozen	659	10,497	244	597	11,377	264
Canned fish	105	5,822	154	120	6,873	158
Cod-liver oil	4,609	31,749	737	2,533	20,403	473
Lumpfish roes, salted	218	3,568	83	291	4,421	103
Other roes for food, salted	3,176	44,919	1,042	2,743	37,899	879
Roes for bait, salted	974	7,203	167	311	2,113	49
Herring, salted	17,520	166,558	3,866	16,620	149,570	3,470
Herring oil	15,614	62,717	1,455	19,917	85,740	1,989
Ocean perch oil	116	515	12	15	59	1
Whale oil	2,035	11,042	256	388	2,558	59
Fish meal	5,614	33,294	772	16,397	102,148	2,370
Herring meal	32,368	196,149	4,597	22,102	140,776	3,266
Ocean perch meal	956	4,479	104	34	204	5
Wastes of fish, frozen	1,095	3,295	76	2,456	5,987	139
Liver meal	283	1,970	46	180	1,185	27
Whale meal	100	558	13	302	1,567	36
Whale meat, frozen	838	5,887	137	151	1,097	25

Note: Values converted at rate of 1 kronur equals 2.32 U. S. cents.

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EXPORTS OF FISH OILS, JANUARY-JUNE 1963:

Iceland's exports of herring oil during the first 6 months of 1963 declined by 22 percent

Iceland (Contd.):

to 17,212 short tons from 21,954 tons in the comparable period a year earlier.

Exports of cod liver oil (including non-freezing, nondestearinated, and industrial cod liver oil) amounted to 5,080 tons in January-June 1963--up from the 2,793 tons exported in January-June 1962. Exports of redfish (ocean perch) oil totaled 127 tons in January-June 1963 as compared with 16 tons in January-June 1962. (Foreign Agriculture, October 7, 1963.)

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**NEWLY CONVERTED FREEZER
TRAWLER'S MAIDEN TRIP SUCCESSFUL:**

The Icelandic side trawler Narfi, converted recently to a freezer trawler, made a successful first voyage to the Greenland grounds, after spending three days in Icelandic waters testing the freezing equipment.

Most of the catch consisted of medium-size cod which, with some haddock, was headed and frozen into blocks. A total of 5,820 blocks was landed at Grimsby, the total catch amounting to 302 tons. The catching rate on the grounds was about 16 tons per day of all fish and the freezing rate 12 tons per day. Quality was said to be excellent, due, it is thought, to the improved freezing equipment which insures better contact between plates and fish, and to the care taken in bleeding and washing the fish on board.

The Narfi conversion involved the building of covered accommodation for the freezers on the port well deck and other modifications, carried out by a Bremerhaven shipyard. (World Fishing, September 1963.)



Indonesia

**NEW OCEANOGRAPHIC RESEARCH
VESSEL DELIVERED:**

A new oceanographic research vessel, the Jalanidhi, was delivered to the Indonesian Government on January 12, 1963. Construction began on August 4, 1962, and she was launched on October 29, 1962. The Jalanidhi was scheduled to participate in the International Indian Ocean Expedition.

The Jalanidhi is 746 gross tons; 53.9 meters (176.8 feet) over-all length; and is fitted with Diesel machinery. Accommodation is provided for 12 officers, 26 crewmen, and 26 research workers. She is fitted with a balloon station, a code recorder, and radiosonde equipment for aerological observation. Other equipment includes a precision echo sounder for 10,000-meter deep-sea use, a fish "mirror" (an echo sounder operable in all directions), a telefinder, and an echo sounder for detecting characteristics of the bottom of the sea.

In addition, there is a carbon-14 tracer for the measurement of basic productivity of seawater samples and a soft X-ray projector for X-ray observation of fish. For experiments on embryological and physiological studies of plankton, fish eggs and larvae for estimation of stock size and fluctuation of fisheries resources, a graduated thermal incubator is installed, and there is also a nongraduated thermal incubator for embryological and taxonomical studies of fish eggs and larvae. (National Oceanographic Data Center, Newsletter, July 31, 1963.)



Iran

UNITED STATES FIRMS BID FOR CAVIAR:

The National Iranian Fisheries Company (Shilat) opened bids submitted by four United States firms for the sale of 60 metric tons of caviar on September 16, 1963. The winning bids submitted by a New York City firm for the various grades of caviar were as follows: Beluga, No. 1, 15 metric tons at US\$15.88 a pound; Beluga, No. 2, 2 metric tons at \$7.71 a pound; Osetra, No. 1, 2 metric tons at \$15.20 a pound; Osetra, No. 2, 2 metric tons at \$7.71 a pound; Sevruga, No. 1, 5 metric tons at \$9.98 a pound; Sevruga, No. 2, 23 metric tons at \$5.44 a pound; Pressed, No. 1, 6 metric tons at \$3.40 a pound; and Pressed, No. 2, 5 metric tons at \$2.95 a pound. The total value of the contract was \$1,123,500. Bids for the best grade (Beluga No. 1) caviar ranged from a high of \$15.88 to a low of \$13.61. (United States Embassy, Tehran, September 19, 1963)



Japan

CATCH OF ATLANTIC OCEAN BIG-EYED TUNA HIGHER IN SEPTEMBER 1963:

The Japanese Atlantic tuna long-line vessels are reported to have taken unusually large quantities of big-eyed tuna since early September 1963. Their big-eyed catch is said to run well over 50 percent of their landings, compared to 20-30 percent for yellowfin. This development may adversely affect Japanese frozen tuna exports to Italy since Italian importers are said to be very reluctant to purchase tuna if the ratio of yellowfin to big-eyed in a shipment exceeds 70:30.

September c.i.f. prices paid by Italy per metric ton of frozen tuna imports were quoted at US\$390-400 (dressed, without head but with tail) for yellowfin and \$330-340 for big-eyed.

Abundance of big-eyed in the Atlantic tuna catch is expected to intensify competition among Japanese exporters to sell that species to Czechoslovakia, the only European country that is said to be willing to accept pure shipments of big-eyed. Czechoslovakia in September was offering \$335-338 per metric ton for big-eyed, delivery Hamburg, Germany, or Trieste, Italy. (Suisan Tsushin, September 16, 1963.)

CANNED TUNA IN BRINE SALES TO UNITED STATES, SEPTEMBER-NOVEMBER 1963:

Japanese tuna packers, at a directors' meeting held on September 26, 1963, voted to release for export to the United States 150,000 cases of canned tuna in brine per month, or a total of 450,000 cases between September-November 1963.

The Japan Canned Foods Exporters Association, which also convened a meeting on that same date, announced that it would go along with the packers' decision. Accordingly, for September the Association agreed to offer for sale 150,000 cases but did not specify the amount of each kind of pack (white meat or light meat) to be sold. Export f.o.b. prices will be the same as for previous sales, i.e., \$10.50 per case for white meat tuna and \$7.65 per case for light meat tuna for No. $\frac{1}{2}$ (7-oz.) 48's.

Japanese canned tuna in brine approved for export to the United States as of the end

of September totaled 2,010,000 cases. Japan's export target for the year (December 1962-November 1963) is 2,300,000 cases. (Suisan Tsushin, September 27, 1963; and other sources.)

EXPORTS OF CANNED TUNA IN OIL, APRIL-JULY 1963:

According to data compiled by the Japan Tuna Packers Association, canned tuna in oil approved for export by the Association's sales company for the period April-July 1963 totaled 682,331 cases. This represents an increase of 128 percent over exports approved

Japanese Canned Tuna in Oil Exports, April-July 1962-63		
Principal Countries of Destination	April-July	
	1963	1962
	(Cases)	
West Germany	229,493	102,134
Canada	82,093	65,074
Lebanon	42,186	9,025
England	39,084	12,400
Netherlands	36,194	30,702
Switzerland	34,907	10,835
Belgium	34,659	2,065
Aden	32,499	3,939
Saudi Arabia	30,963	2,155

during the corresponding period in 1962, which totaled 299,402 cases. (Suisan Tsushin, September 21, 1963.)

EXPORTS OF CANNED TUNA IN OIL TO CANADA APPROVED:

The Japanese Ministry of International Trade and Industry has approved the application of the Canned Tuna Packers Association to export chunk-style packs of canned tuna in oil to Canada. Heretofore, only exports of solid and flake-style packs were authorized by the Japanese Government.

The following f.o.b. Japan export prices per case were established for the different chunk-style packs: Tuna in oil: white meat chunk ($\frac{1}{4}$ lb.) 48's, \$5.05; white meat chunk, No. $\frac{1}{2}$ ($6\frac{1}{2}$ -oz.) 48's, \$8.65; white meat chunk, No. 1 (13-oz.) 24's \$7.80; white meat chunk (4-lb.) 6's, \$9.60; light meat chunk ($\frac{1}{4}$ -lb.) 48's, \$4.10; light meat chunk, No. $\frac{1}{2}$ ($6\frac{1}{2}$ -oz.) 48's, \$6.90; light meat chunk, No. 1 (13-oz.) 24's, \$6.30; and light meat chunk, 4-lb. 6's, 7.35. (Suisan Keizai Shimbun, September 15, 1963.)

Japan (Contd.):

**GREEN MEAT IN TUNA EXPORTS
CONTINUES TO BE PROBLEM:**

Claims against exports of green meat tuna continue to plague Japanese exporters of frozen tuna to the United States, according to the Japan Frozen Foods Inspection Corporation, a public corporation responsible for examining the quality of frozen foods for export. About 3 percent of the frozen tuna exported to the west coast and about 1 percent shipped to the east coast of the United States are rejected by U. S. packers due to the occurrence of a greening condition, which happens principally in yellowfin tuna.

Research is continuing in Japan to find ways of maintaining good quality tuna meat color. The study on the green meat condition is being conducted by a scientist at the University of Tokyo. (Minato Shimbun, September 20, 1963.)

**LARGER VESSELS REQUESTED
FOR SOUTH PACIFIC TUNA FISHERY:**

Japanese firms conducting fishing operations from tuna bases in the South Pacific Ocean are seeking Government permission to operate 180-ton refrigerated tuna clippers, which have a wide range of operation. At present, they are authorized to employ only fresh fish carrying-vessels under 100 gross tons, which have a limited operating range.

The Japanese overseas tuna base operators are experiencing increasing difficulty in contracting ice boats to fish for them because of declining catches in waters adjacent to their bases. Similarly, Japanese tuna mothership operators are faced with the same problem, and for that reason one company has decided not to dispatch a second tuna mothership fleet to the South Pacific this year. (Suisan Tsushin, September 26, 1963, and other sources.)

**NEW TUNA TRANSSHIPMENT
PORT IN EAST AFRICA PROPOSED:**

Eleven Japanese fishing companies are jointly seeking approval for the establishment of a transshipment port in East Africa, from which frozen tuna can be exported directly to Europe and to the United States. At the present time, transshipments of Indian

Ocean tuna for export to the United States are only permitted via Penang (Malaya) and Singapore. Transshipments of Indian Ocean tuna to Japan proper are permitted only at Durban, South Africa. (Suisan Tsushin, September 12, 1963, and other sources.)

**OFFICIAL VISITS UNITED STATES
TO DISCUSS CANNED TUNA TARIFF:**

The Japanese Minister of Forestry and Agriculture, who was scheduled to attend the Japan-Canada Ministerial Economic Conference in Canada on September 25-26, 1963, planned to visit the United States after that conference. Reportedly, the Minister planned to discuss with the U. S. Secretary of the Interior the U. S. tariff on canned tuna in brine and the present method of assessing duties on that product.

It was reported that Japanese canned tuna packers are concerned over the low United States pack of canned tuna in 1963, because it would result in a smaller quantity of foreign-produced canned tuna in brine that can be admitted into the United States in 1964 at the lower duty rate of 12½ percent ad valorem. Under the present United States tariff structure, ad valorem duty of 12½ percent is assessed on canned tuna in brine imports amounting to 20 percent of the total United States domestic production for the previous calendar year. Imports exceeding that amount are dutiable at 25 percent ad valorem. Japanese packers are said to be seeking arrangements through their Government whereby some adjustment can be worked out for 1964 imports only. (Suisan Keizai Shimbun, August 23, 1963.)

**RESEARCH VESSEL TO STUDY
YELLOWFIN TUNA IN EASTERN PACIFIC:**

The Japanese Government-operated research vessel Shoyo Maru, 602 gross tons, was scheduled to depart Japan on September



A Japanese research vessel, Shoyo Maru.

Japan (Contd.):

26, 1963, on a 175-day exploratory cruise to the eastern Pacific Ocean to study the geographical distribution, ecology, and size distribution of yellowfin tuna. At the invitation of the Japanese Government, scientists from the Inter-American Tropical Tuna Commission and from the U. S. Bureau of Commercial Fisheries will board the vessel for part of the cruise. (Suisan Keizai Shimbun, September 12, 1963, and other sources.)

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SOUTH PACIFIC TUNA CATCH POOR AS OF EARLY SEPTEMBER 1963:

The two Japanese mothership tuna-fishing fleets, Yuyo Maru (5,500 gross tons) and Nojima Maru (8,800 gross tons), operating in the South Pacific Ocean in the general vicinity of the Fiji Islands, were reported to be experiencing poor fishing as of early September 1963. The 33 catcher vessels of the Yuyo Maru fleet were reported to be averaging 2.4 metric tons per day as compared to 2.8 and 3.3 metric tons in 1962 and 1961, respectively; the 68 catcher vessels of the Nojima Maru fleet were said to be averaging 2.1 metric tons per day compared to 2.6 and 2.8 metric tons in 1962 and 1961, respectively. The large Japanese tuna vessels fishing with portable vessels (20 tons or less) in the same general area as the two mothership fleets were also reported to be doing poorly averaging two metric tons or less per catcher vessel per day.

As a result of prevailing poor fishing conditions this year and evidences of a continuing decline in tuna availability over the last few years in the South Pacific, Japanese vessel operators are seeking more promising fishing grounds elsewhere in the Pacific. One evidence of this is the renewed interest shown by a large Japanese fishing company (operators of the Yuyo Maru fleet) in establishing a tuna fishing base in Tahiti. That company, which normally operates two tuna mothership fleets per year on a rotational basis, has decided not to dispatch a second mothership fleet to the South Pacific later this year. Reportedly, that company has not been able to attract a sufficient number of small tuna vessel owners to form a second mothership fleet. (Suisan Keizai Shimbun, September 12; Suisan Tsushin, September 20, 1963.)

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TUNA RESOURCES OFF WEST COAST OF SOUTH AMERICA SURVEYED:

The Japanese Fisheries Agency on September 18, 1963, released a report on the results of the December 1962-March 1963 tuna survey in the eastern Pacific Ocean by the Government-operated research vessel Shoyo Maru, 602 gross tons. According to that report, tuna, especially big-eyed, were found in abundance north of the equator in the eastern Pacific, but were completely absent south of the equator to 13° S. latitude. The absence of tuna in the areas fished by the Shoyo Maru was attributed to the influence of the cold Peru Current. The area between 15° S. lat., at 95° W. long., and 30° S. lat. showed good fishing potential for albacore, yellowfin, and striped marlin, particularly between 20°-30° S. latitudes and 100°-110° W. longitudes.

The exploratory fishing conducted by the Shoyo Maru has shown that the eastern Pacific Ocean off South America holds definite promise as a suitable tuna fishing ground, particularly for land-based type operations employing small and medium-size tuna vessels. (Suisan Keizai Shimbun, September 19, 1963.)

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TUNA MOTHERSHIP OPERATIONS OFF SOUTH AMERICAN WEST COAST:

The Japanese portable-vessel-carrying tuna mothership Keiyo Maru (3,691 gross tons), fishing with eight 20-ton vessels in the eastern Pacific, is reported to have landed, as of August 31, 1963, a total of 817 metric tons of tuna, spearfish, and shark. This amounts to a catch average of well over two metric tons per catcher boat per day. The mothership's catch consists of: big-eyed, 309.8 metric tons (37.9 percent of total catch); yellowfin, 157.6 metric tons (19.2 percent); spearfish, 140.5 metric tons (17.2 percent); shark and other miscellaneous species, 209.2 metric tons (25.7 percent).

The Keiyo Maru refueled at Balboa, Panama Canal Zone, and departed that port September 1 on the second leg of her planned 185-day trip, which started June 5. (Hokkai Suisan, September 16, 1963.)

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TUNA VESSEL OWNERS SET UP COOPERATIVE AT MALAYSIA BASE:

The Japanese Overseas-Based Tuna Fishery Cooperative Association, an organization

Japan (Contd.):

of tuna vessel owners operating out of Penang, Malaysia, was inaugurated at a meeting held in Tokyo on September 26, 1963. The Association is under the auspices of the Japan Federation of Tuna Fisheries Cooperative Associations.

Objectives adopted by the Association for the first year are:

(1) Advise Association members on applicable regulations and revisions thereof, extend guidance on business management and on safe operation of vessels, and develop measures to stabilize fish prices. Guidance to be coordinated with the Japan Federation of Tuna Fishermen's Cooperative Association.

(2) Progressively undertake sales activity after the Association develops into a strong organization, structurally and financially.

(3) Extend loans to vessel owners according to vessel size as follows: (a) pre-departure loans, US\$13,889-\$22,222; and (b) loans for refrigeration equipment, \$13,889-\$16,667. At the end of each trip, a fixed amount will be deducted from the value of the trip to repay the loan. The loans will carry an interest charge of $9\frac{1}{8}$ percent.

(4) Purchase 7,750 kiloliters (2,046,000 gallons) of fuel per year to supply 30 fishing vessels based at Penang. (Suisan Tsushin, September 27, 1963.)

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ATLANTIC TRAWL FISHERY DEVELOPMENTS:

East Atlantic: A Japanese fishing company accepted delivery of its new 2,500-ton stern trawler Kurama Maru on August 31, 1963. Built at a total cost of approximately US\$1.5 million, the vessel was scheduled to depart on her maiden voyage to the Atlantic Ocean trawling grounds around September 10.

Specifications of the Kurama Maru are: horsepower (main engine) - 2,750; length - 260 feet; beam - 44 feet; draft - 28 feet. The vessel is equipped with loran, direction finder, fish finder, and radar.

With the addition of the Kurama Maru, the owners will have 8 trawlers in the 2,500-ton class operating in the Atlantic Ocean. The first was the Amagi Maru, which was launched in July 1960. The other six trawlers are: Ibuki Maru, Unzen Maru, Hidehiko Maru, Oe Maru, Kaibun Maru, and Kiso Maru. In addition, the company operates several older trawlers under 1,000 tons gross in the Atlantic Ocean. (Minato Shimbun, September 12 and August 31, 1963.)



Fig. 1 - Japanese stern-ramp factory trawler Akebono Maru No. 51.

Another Japanese fishing company, which is presently operating two 1,500-ton stern trawlers (Akebono Maru Nos. 50 and 53) off the west African coast with excellent results, was reported to be planning on expanding its Atlantic trawl fleet. Under present plans, the company intends to divert to African waters the two 1,500-ton stern trawlers Akebono Maru Nos. 51 and 52 currently operating in the North Pacific. As replacements, the company would construct two 3,500-ton stern trawlers for year-round operation in northern waters. (Minato Shimbun, August 30 and Shin Suisan Shimbun Sokuho, September 10, 1963.)

North Atlantic: The 1,200-ton Japanese trawler Aoi Maru No. 2, the first Japanese trawler to operate in the North Atlantic Ocean, terminated operations in mid-September, slightly ahead of schedule. The trawler has been operating out of Saint Pierre Island (French), fishing primarily for cod. The vessel will undergo repairs in Japan before returning to the North Atlantic fishing grounds. (Minato Shimbun, September 12, 1963.)



Fig. 2 - Typical catcher boat of the Tenyo Maru No. 3 fleet.

Another company's stern trawler Tenyo Maru No. 3 (3,700 gross tons) was scheduled to depart Tokyo sometime between October 1-5 for the North Atlantic Ocean. Assigned to her are two 300-ton trawlers, Chuyo Maru No. 6 and Eiyo Maru, which departed Tokyo on September 24. Those vessels will operate out of Miquelon Island (French possession) off the southern coast of Newfoundland for approximately 18 months, and will fish primarily for cod, which will be processed on the Tenyo Maru No. 3 for export to the United States. (Suisan Tsushin, September 12; Nihon Suisan Shimbun, August 28, 1963.)

The introduction in Japan of merluza (hake) caught by the Japanese trawlers in the Atlantic Ocean has aroused considerable interest in the Japanese industry in view of the market potential of that species. Some Japanese fish processors are reported to be considering the possibility of using hake, instead of whale meat, tuna, and other species of fish (which are becoming less available and more expensive) as an ingredient for fish sausage. (Minato Shimbun, August 30, 1963.)

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Japan (Contd.):

STERN TRAWLERS FOR ATLANTIC OCEAN FISHERY PLANNED:

Three Japanese fishery companies have submitted applications to the Fisheries Agency to construct stern trawlers ranging in size between 2,500-3,000 gross tons for assignment to the Atlantic Ocean.

Six other fishing companies are planning on submitting applications to the Agency to construct large stern trawlers, also for assignment to the Atlantic Ocean. However, the Fisheries Agency is expected to limit the number of new trawlers to a total of eight vessels over 1,000 gross tons for assignment to the Atlantic Ocean. (Suisan Tsushin, September 26, 1963, and other sources.)

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PRODUCTION OF BERING SEA BOTTOMFISH FISHING FLEETS AS OF MID-SEPTEMBER 1963:

Of the 19 mothership fleets licensed to operate in the Bering Sea east of 170° E. long. in 1963, all but 5 fleets have returned to Japan. Total production of the 19 fleets, as of mid-September, was reported to have exceeded 257,000 metric tons. The production consists of: Alaska pollock, 104,000 tons; flatfish, 66,300 tons; herring, 31,500 tons; shrimp, 27,000 tons; rockfish, 15,000 tons; and cod, 14,000 tons.

Two of the 19 fleets engaged in fish-meal production. The fish-meal factoryship Gyokuei Maru (10,537 gross tons) produced 15,300 metric tons of fish meal and about



Fig. 1 - Trawler attached to Japanese fish meal factoryship Gyokuei Maru, operating in Bering Sea.

1,500 metric tons of fish oil. The Soyo Maru (11,192 gross tons), which was due to leave the fishing grounds in late September, produced as of mid-September about 6,000 metric tons of fish meal.



Fig. 2 - Japanese trawler No. 18 Soho Maru operating in the Bering Sea as part of a mothership fleet.

The total production of the two fish-meal factoryships is expected to be consumed in Japan. It is believed that informal agreements have been made to release the fish meal on the Japanese domestic market for US\$178 per metric ton. (Suisan Keizai Shimbun, September 28, 1963.)

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BERING SEA BOTTOMFISH OPERATIONS MAY BE REORGANIZED:

Unprofitable operations were reported by five Japanese Bering Sea mothership fleets licensed to fish for bottomfish during 1963 in Areas A, B, and CF (east of 170° E. longitude and west of 175° W. longitude but south of the Navarin-Sarichef line), according to the Japanese periodical Suisan Keizai Shimbun, August 29, 1963. Those fishing fleets (No. 1 Tosui Maru, 381 gross tons; No. 12 Sumiyoshi Maru, 578 gross tons; No. 15 Kotoshiro Maru, 701 gross tons; No. 31 Banshu Maru, 1,772

Japan (Contd.):

gross tons; and Ishiyama Maru, 3,539 gross tons) were reported to have met, on an average, only two-thirds of their respective catch targets.

The five fleets, which were originally scheduled to return to Japan in late October 1963, terminated their operations by September, partly because of poor prospects for halibut fishing. However, their principal reason for leaving the grounds so early was said to be the intense fishing competition they encountered. The increased competition was attributed to the action taken by the Japanese Fisheries Agency in opening the waters between 170° E. longitude and 175° W. longitude to Japan-based trawlers in 1963. About 72 Japan-based trawlers were reported to have converged on the Olyutorskii fishing grounds this year.

The Japanese periodical further stated that the Japanese Fisheries Agency was considering a plan to encourage year-round fishing in the Bering Sea, and to reorganize mothership-fleet operations in 1964. Most of the 19 mothership bottomfish fleets operating in the Bering Sea in 1963 were reported to have lost money. This occurred in spite of a reduction of 4 motherships and about 40 catcher vessels in the fleet licensed to operate in 1963.

A proposal to restrict the size of motherships in the Bering Sea bottomfish fleet to not less than 1,000 tons gross was being studied. From the standpoint of efficiency, the Fisheries Agency was reported to believe that the employment of 2,000 to 3,000-ton motherships accompanied by 2 or 3 catcher vessels would be ideal. Motherships of that type could be designed so that they could also fish, thereby reducing operational costs materially. In addition, they could operate on a year-round basis, rather than on a seasonal basis, like many of the larger motherships (5,000 to 10,000-ton class) which are presently deployed in the Antarctic Ocean during the winter whaling season and the Bering Sea bottomfish fishery during the summer season.

One reason given for the failure of the 1963 Bering Sea mothership fleet operation was the great emphasis placed on long-line gear. Those fleets which primarily fished long-line gear were said to have lost the most money. The Fisheries Agency hopes

to guide fishing companies in diversifying their fishing gear, with emphasis on trawl gear, so that they will be in a more flexible position to fish for different species of fish.

The regional (Shimonoseki) newspaper Minato Shimbun reported on September 6, 1963, that the first phase of the Japanese Government's three-year plan to gradually transfer trawlers from other depressed fisheries to the land-based North Pacific trawl fisheries would be completed by the end of 1963. By then, about 40 trawlers will have been permitted to transfer to the northern water fishery.

The second phase of the vessel transfer program is scheduled to begin in 1964, but, as a result of increased competition on the fishing grounds between land-based trawlers and mothership fleets, the Fisheries Agency is expected to carefully review its vessel transfer policy. The Fisheries Agency reportedly thinks that further transfers should not be allowed. However, the Hokkaido Prefecture Government is reported to be already planning on permitting 32 trawlers under Hokkaido registry to transfer to the northern water trawl fishery under the second phase of the vessel transfer program.

Note: See Commercial Fisheries Review, April 1963 p. 57.

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PERMIT REQUESTED FOR BERING SEA FISH-MEAL OPERATION:

One of the large Japanese fishing companies, which terminated its fish-meal operations in the eastern Bering Sea in 1963, is reported to have applied to the Japanese Fisheries Agency to reactivate the venture in 1964. The company plans to use the fish-meal factoryship Renshin Maru (14,094 gross tons) for the operation.



Japanese fish-meal factoryship Renshin Maru operating in Bering Sea.

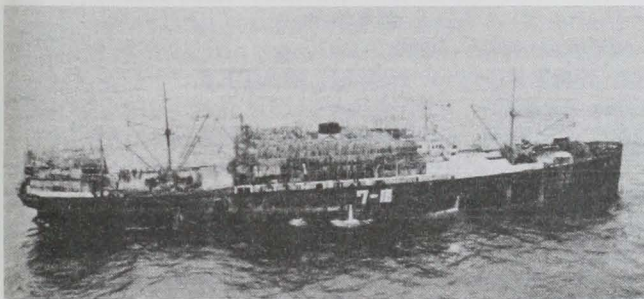
Japan (Contd.):

The company has decided on reactivating its Bering Sea fish-meal operation as a result of: (1) failure to come to agreement with Chile on establishing joint fish-meal operations off that country; and (2) improved economic outlook for 1964, based on current fish-meal trends in Japan. (Suisan Tsushin, September 25, 1963.)

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BERING SEA HERRING FISHERY TRENDS, AUGUST 1963:

Five Bering Sea mothership fleets consisting of the Soyo Maru, 11,192 gross tons; Shinyo Maru, 3,811 gross tons; Shikishima



Shinyo Maru, mothership factoryship, operates with other fishing vessels.

Maru, 10,144 gross tons, Itsukushima Maru, 5,871 gross tons; and the Seifu Maru, 8,269 gross tons, were having good herring fishing and their total combined herring catch, as of August 20, 1963, had exceeded 20,000 tons. The Japanese ex-vessel price for herring was reported to have dropped 10 yen per kilogram (US\$25 per short ton) from the original price of 85 yen per kilogram (\$214 per short ton). But even at the lower price, the mothership fleets were said to be able to fish for herring on a profitable basis. (Suisan Keizai Shimbum, August 28, 1963.)

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CHIBA COMPANY TO CONTINUE VENEZUELAN JOINT ENTERPRISE:

A Japanese company in Chiba Prefecture, which in August 1959 established a joint fishing company in Venezuela, is reported to have decided to continue participation in that company. The joint enterprise had been beset with various management problems, and a special delegation from Chiba Prefecture, headed by the prefectural vice-governor, was dispatched to Venezuela to discuss the

problems with Venezuelan authorities. The negotiation, which began on August 11, 1963, reportedly resulted in strengthening the management authority of the Japanese and in obtaining assurance of greater cooperation from the Venezuelan Government. (Nihon Suisan Shimbum, September 11, 1963.)

Editor's Note: A September 1962 press report indicated that the joint company was operating a total of seven fishing vessels in the Caribbean Sea.

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JAPANESE-BRAZILIAN FISHERIES FIRM TO EXPAND:

The Japanese-Brazilian jointly-owned cold-storage and fish-processing company (capital about US\$3 million) at Recife, Brazil, will be enlarged to double its present capacity in 1964, according to the company's president.

The joint company operates three 300-ton tuna vessels and two spiny lobster fishing vessels. Present base facilities of this company include a 500-ton capacity cold-storage plant, 15-ton ice machine, 10-ton freezing plant, and a packing plant. (Minato Shimbum, September 22, 1963.)

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FISHERIES AGENCY INCREASES BUDGET FOR FY 1964:

The Japanese Fisheries Agency is requesting a budget of US\$61 million for fiscal year 1964 (April 1964-March 1965). This represents an increase of \$13.6 million, or 29 percent, over the FY 1963 budget request of \$47.4 million.

Under a new program titled "Promotion of Fisheries Products Consumption," the Fisheries Agency is requesting \$117,400. That appropriation would be used to assist frozen fish-marketing campaigns in Japan and to subsidize the installation of refrigeration facilities for holding fish at 40 agricultural cooperatives in 4 prefectures.

To assist the saury industry, the Fisheries Agency is requesting \$138,900 for the purpose of stabilizing saury prices.

For the purpose of maximizing the utilization of fisheries resources and promoting fishing efficiency, the Fisheries Agency plans

Japan (Contd.):

to expand the existing fishing condition forecasts. The forecasts are presently the responsibility of the Tohoku Regional Fisheries Research Laboratory. The Tohoku Laboratory publishes, at regular intervals, fishing charts showing oceanic conditions (temperature isotherms, currents, etc.) and fishing results, including landings and prices, on the skipjack, albacore, and saury fisheries. Under the FY 1964 budget proposal, the program would be expanded on a national basis to cover the Pacific Ocean mackerel fishery off northern Japan, the Japan Sea mackerel and sardine fisheries, and the East China Sea mackerel fishery.

For existing programs, the Agency is requesting large increases in appropriations for biological research related to international fisheries as well as for the guidance, supervision, and control of the northern water (North Pacific, Okhotsk Sea, and Bering Sea) fisheries and other distant-water fisheries. Budget submissions for those programs total \$1.8 million, an increase of \$0.6 million (50 percent) over the current year's allotment. (Nihon Suisan Shimbun, September 9, 1963, and other sources.)

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FROZEN CUTTLEFISH
EXPORTS TO PORTUGAL:

Two Japanese exporting firms are reported to have concluded agreements to export to Portugal a total of 2,000 metric tons of frozen cuttlefish at prices ranging from US\$ 142 to \$154 per metric ton (believed to be f.o.b. prices). Reportedly, export prices this year are down over 20 percent from last year, and the decline is attributed to stiffer competition between exporters. The highest price paid in 1962 was \$230 a ton for 470 tons of cuttlefish. Exports that year totaled 2,770 tons.

The frozen cuttlefish contracted for export were to be shipped from the port of Kushiro, Hokkaido, in October 1963 for delivery to Lisbon. According to Japanese exporters, there is a likelihood that Portugal may purchase an additional 500 to 600 tons of frozen cuttlefish this year. (Nihon Keizai Shimbun, August 25, 1963.)

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MODIFIED UNITED STATES PURSE-SEINE
GEAR SUCCESSFUL IN SKIPJACK
TUNA FISHERY:

The Japanese skipjack tuna industry has been experimenting since 1962 with one-boat purse-seine gear, employing a power block. It involves a United States-type purse seine which has been modified for local fishing conditions. The skipjack vessels fishing with the modified purse seines and power blocks have been able to outfish other skipjack vessels equipped with conventional pole-and-line gear. Views are now being expressed among Japanese skipjack vessel operators that this development may start a trend toward replacing pole-and-line gear with one boat purse-seine nets. (Suisan Keizai Shimbun, September 20, 1963.)

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SEA WATER TO FRESH WATER
CONVERSION APPARATUS
SUCCESSFUL ON TUNA VESSEL:

A device which produces fresh water from sea water was reported to have been successfully installed in a Japanese tuna vessel operating out of Yaizu, Japan. The converter contains an evaporator which vaporizes the sea water used in cooling the ship's engine. The vaporized sea water is then cooled by means of a vacuum, producing distilled water. The converter can produce 1 ton of fresh water from 5 tons of sea water and supply an average of 1 to 2 tons of fresh water per day.

The advantages of the converter were cited as follows: (1) produces fresh water of good quality, (2) converter is light and compact, (3) no fuel expense is required since the heat of coolant water is utilized, (4) manufactures fresh water even while vessel is in operation, and (5) low in cost and safe in operation. (Minato Shimbun, August 30, 1963.)

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TANKER TO REFUEL
FISHING VESSELS AT SEA:

The Japan National Federation of Tuna Fishermen's Cooperative Associations is sending the 1,500-ton tanker Shimmei Maru to the central and eastern Pacific Ocean tuna fishing grounds on a trial basis to serve as a "mobile fuel depot" for refueling tuna-fishing vessels at sea. The tanker will rendezvous at predetermined locations on the high seas with tuna vessels and refuel those vessels at

Japan (Contd.):

sea. Approximately 90 Japanese tuna vessels are expected to participate in the first ship-to-ship high seas fueling experiment.

The cost of fuel oil to the tuna vessels participating in the trial will be about 20,000 yen per kiloliter (US\$0.21 per gal.). Ordinarily the vessels would refuel at Hawaii or at Tahiti. Fuel cost at those localities is over 15,000 yen per kiloliter (\$0.16 per gal.). Added to that cost is the rather high port entry and docking fees, so actual total cost of fuel purchased at those ports amounts to over \$0.21 per gallon.

The loss in fishing time and other costs to a 400-ton tuna vessel, which spends 10 days for refueling purposes, is said to amount to about 4 million yen (\$11,000). By refueling at sea on the fishing grounds, that cost would be eliminated, thereby greatly increasing vessel operating efficiency.

The Shimmei Maru was scheduled to depart Yokohama on October 10, 1963, and will first call at Honolulu before proceeding south-eastward to a point located at approximately 3° S. latitude, 140° W. longitude where the initial rendezvous will be made with tuna vessels fishing in that general locality. The tanker will then proceed on an easterly course to 120° W. long.; then south along 120° W. long. to 10° S. lat.; then northeast to 5° S. lat., 100° W. long., before running to Balboa (Panama Canal Zone) for fuel around December 3, 1963.

On the return journey to Japan, the Shimmei Maru will head for a point at approximately 15° S. lat., 95° W. long., and then proceed on a straight course to approximately 5° S. lat., 150° W. long.

Throughout the trip radio contact will be maintained with the 90 tuna vessels participating in the high seas fueling experiment. At predetermined points along the route traveled by the tanker, those vessels will rendezvous with the tanker to receive fuel. (Suisan Keizai Shimbun, September 22, 1963.)

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**GOVERNMENT LEADERS PRESS FOR
REVISION OF NORTH PACIFIC
TRIPARTITE TREATY:**

Government leaders, at a meeting held on September 12, 1963, for the purpose of de-

termining Japan's official position with respect to the Japan-United States-Canada Fisheries Treaty, agreed to definitely press for removal of the abstention principle at the Treaty renegotiation scheduled to begin on September 16 at Tokyo, and unanimously expressed support of the Prime Minister's decision to seek conclusion of a new fisheries treaty. As to whether Japan will serve notice of her intention to terminate the present Treaty in the event negotiations should fail, the conferees agreed that Japan's notification of intention is not an end but a means for concluding a new treaty.

Japan expects the United States to firmly insist on the continuance of the abstention principle. However, information received by the Japanese Government on September 12 indicated that the United States was willing to consider replacing the wording "voluntary abstention principle" in the text of the present Treaty with such other words as "restraint or conservation," provided the effect remained the same. In commenting on this development, the Fisheries Agency Director and the Production Division Chief are quoted as saying that Japan cannot accept this compromise unless the rewording brings about a change in the basic character of the abstention principle, but the fact that the United States has shown her readiness to consider this change is being carefully evaluated by Japan.

Japanese Government authorities are emphasizing the fact that a new fisheries treaty concluded along the line proposed by Japan at the June 1963 Washington conference will not result in what President Kennedy states as irreparable losses to fishery resources of the Pacific Ocean, and are claiming that the Japanese proposal is the most rational, equitable approach to resource conservation. The Japanese Government on September 12 informally announced the makeup of the Japanese Government delegation scheduled to take part in the Treaty renegotiation slated to convene in Tokyo from September 16. (Suisan Keizai Shimbun, September 13, 1963.)

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**PROGRAM FOR TRANSFER OF
COASTAL VESSELS TO NORTHERN
TRAWL FISHERIES UNDER STUDY:**

The Japanese Fisheries Agency is reported to be planning to discontinue in 1964, the program it initiated in January 1961 of transferring vessels engaged in the coastal trawl

Japan (Contd.):

fishery to the northern water trawl fishery. Purpose of the program was to solve the conflict over domestic fishing grounds between non-trawl coastal fishermen and coastal trawl fishermen and to stabilize management of the coastal trawl fishery.

The vessel transfer program was to be carried out in two phases. The first phase, which began on January 1, 1961, is scheduled to end March 31, 1964, after three years. By that deadline, a total of 150 trawlers are to be taken out of the coastal trawl fishery and transferred to the distant northern water trawl fishery.

Area of operation assigned to the transferred trawlers in 1961 was the waters north of 48° N. lat. between long. 148° E. and 170° E. In 1963, the area was extended easterly by 15° to 175° W. long.

The second phase of the program, to begin after April 1964, is to be carried out pending a full review of the progress and effect of the three-year program.

During the first phase, a total of 150 trawlers from five northern prefectures--Hokkaido, Aomori, Miyagi, Iwate, and Fukushima--are scheduled to be transferred to the northern water trawl fishery. Hokkaido's vessel quota is 80 trawlers, Aomori and Miyagi 30 each, and Iwate and Fukushima a combined total of 10. However, as of June 20, 1963, only 99 vessels were transferred or approved for transfer. They ranged in size primarily between 70 to 300 tons gross.

The 150 vessels to be transferred have been divided into two categories, called "sengyosen" (a vessel exclusively engaged in only one fishery) and "kengyosen" (a vessel engaged in more than one fishery). Of the 150 vessels, 100 have been designated as "sengyosen." They will be taken out completely from the coastal trawl fishery and be licensed to only engage in the land-based northern water trawl fishery. The 50 vessels designated as "kengyosen" are to be taken out from the coastal trawl fishery for no less than 6 months and be licensed to operate for 6 months in the northern water trawl fishery. All vessels transferred can be replaced with newer and larger vessels, within certain limitations.

Available data in 1961 on the bottomfish resources off Kamchatka Peninsula indicated that commercial fishing operations were feasible. However, Hokkaido vessel owners, who have access to rather abundant resources close by, without having to travel 700-800 miles to the trawling grounds off lower Kamchatka, and who did not wish to convert or replace their vessels at great cost to themselves, showed little enthusiasm for the program for a long while. As of June 20, 1963, a total of only 27 vessels under Hokkaido registry had taken advantage of the program.

On the other hand, as of that same date the four prefectures in northern Honshu (main Japanese island) had more than filled their quota, with a total of 72 vessels being transferred or approved for transfer. Fishermen in those prefectures were willing to make the transfer since they lacked good trawling grounds off their prefectures.

Main grounds fished by the Japan-based trawl fleet in the North Pacific are off the southern tip of Kamchatka Peninsula near Paramushiro Island and in the Okhotsk Sea near the southwestern tip of the Kamchatka Peninsula. Operations in those areas have been found to be most efficient for the smaller trawlers under 200 tons gross but have appeared to have proven a hardship for the larger vessels. Thus, in 1963 the Fisheries Agency expanded the fishing grounds to include the waters west of 175° W. long.

This expansion of the fishing grounds, which opened the grounds between Cape Navarin and Cape Olyutorskii to the Japan-based trawlers, resulted in improving the economic outlook of those vessels. Reportedly, large numbers of the transferred vessels began fishing the Cape Navarin-Cape Olyutorskii region in 1963, and they did quite well. As a result, Hokkaido vessel owners, who heretofore were reluctant to transfer to the northern water trawl fishery, are now reported to be willing to consider making the change. They are expected to request an extension of the program since Hokkaido will not be able to meet its quota (80 vessels) by the end of March 1964.

On the other hand, the mothership-type bottom fishing fleets are reported to have suffered as a consequence of having to compete with the Japan-based trawlers on the same grounds in 1963. Some of the large

Japan (Contd.):

companies operating mothership fleets in the Navarin-Olyutorskii region claim they had to recall their fleets earlier this year due to the intense competition on the fishing grounds, and to resultant dwindling catches. They are now asking that their area of operations in the Bering Sea be further expanded eastwards. Because of this development, i.e., intense competition on the Bering Sea fishing grounds, the Fisheries Agency is said to be not now planning on licensing the transfer of additional coastal trawlers to the northern waters after April 1964.

The Agency is also reported to feel that in the Bering Sea the employment of large motherships are not economically practical and favors the employment of large 2- to 3,000-ton trawlers fishing with 2 or 3 smaller trawlers. The large trawler, in addition to fishing herself, would serve as a mothership to the smaller trawlers. In this connection, one Japanese fishing company is planning to divert to the Atlantic Ocean its two 1,500-ton trawlers presently assigned to the Bering Sea and the North Pacific Ocean and replace them with two 3,500-ton trawlers, each fishing with 2 or 3 smaller trawlers. (Suisan Shuho, August 1963; 1962 Japan Yearbook of Fisheries, and miscellaneous newspaper reports.)

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NORTH PACIFIC WHALE
CATCH QUOTA INCREASED:

The Japanese Fishery Agency recently notified a Japanese fishing firm that the Agency will grant an increase of its current North Pacific baleen whale catch quota by 60 blue-whale units (from the presently allocated quota of 227 to 287 units) in order to compensate that firm for losses incurred by suspension of a joint venture with another firm to fish for king crab south of the Alaska Peninsula. Distribution of the profits from additional whales caught will be divided between those two firms. Two other Japanese whaling fleets (Kinju Maru and Nitto Maru), currently operating in the North Pacific, were not granted increases for their baleen whale catch quotas.

In connection with the increased quota for the North Pacific, it is reported that Japanese fisheries circles are critical of the Government's policy for high-seas fishing, saying

that it lacks consistency and tends to be "safety first."

Officials of the firms owning the two whaling fleets are not raising the issue because their catch quotas have not been increased, but they have expressed dissatisfaction that (1) equality of the three companies is the rule for North Pacific whaling and it is unreasonable to treat crab fishing in the same light with whaling, and (2) despite the fact that North Pacific whaling is being operated autonomously on the basis of the Japanese Government's own judgment, earlier requests for an increase in the quota were denied on the grounds of preserving the whaling resources. (Fisheries Attache, United States Embassy, Tokyo, August 8, 1963.)



Morocco

EXPORTS OF FROZEN
SARDINES TO FRANCE RESUMED:

According to Moroccan press reports, exports of frozen sardines to France were scheduled to begin late in September 1963. These exports were stopped early in July after French dockers refused to unload Moroccan sardines because of local surpluses. According to the original agreement between the French and Moroccan Governments, exports of sardines would stop between July 15 and September 15. (United States Embassy, Rabat, September 20, 1963.)



New Zealand

IMPORTS OF CANNED SALMON
FROM U.S.S.R. INCREASED:

During the latter part of September 1963, the New Zealand press published claims of some importers of salmon that the Soviet Union was granted a substantial import license for cars, cameras, matches, and canned fish for the

Value of New Zealand Imports of Canned Fish, 1960-1961, and July 1, 1962-June 30, 1963

Species	July 1, 1962- June 30, 1963		Calendar Years					
			1962		1961		1960	
	NZ\$ 1,000	US\$ 1,000	NZ\$ 1,000	US\$ 1,000	NZ\$ 1,000	US\$ 1,000	NZ\$ 1,000	US\$ 1,000
Salmon . . .	343	960	208	582	751	2,103	492	1,378
Other fish .	633	1,772	370	1,036	899	2,507	1,457	4,080
Total . . .	976	2,732	578	1,618	1,650	4,610	1,949	5,458

New Zealand (Contd.):

licensing year, July 1, 1963, to June 30, 1964. It is alleged that this licensing arrangement is a part of the agreement reached with the Soviets coincident with the negotiation of the recently signed most-favored-nation treaty.

A comment attributed by the press to the Minister of Customs that import licenses for canned fish are 125 percent of the 1962/63 allocation requires explanation. Although the 1963/64 Licensing Schedule authorizes 125 percent of 1962 licenses, the immediately preceding 1962/63 Licensing Schedule authorizes 33-1/3 percent of 1960 licenses (calendar year). Thus, the effective license authorization for 1963/64 appears to be about 43 percent of 1960 which tends to substantiate importers' claims that there has been a great shortage of salmon on the New Zealand market. (United States Embassy, Wellington, September 20, 1963.)



Nicaragua

SHRIMP FISHERY TRENDS, SECOND QUARTER 1963:

A large United States fishery company is negotiating for the purchase of the assets of a shrimp-processing firm in Bluefields which was taken over recently by the National Bank in Nicaragua. If consummated, the arrangement would entail an initial capitalization of US\$400,000.

A new shrimp-processing plant in Puerto Somoza was due to begin operating about mid-July this year. The new shrimp-processing plant will export to the United States. (United States Embassy, Managua, September 12, 1963.)



Norway

FISHING AND WHALING TRENDS, SECOND QUARTER 1963:

A committee named by the Norwegian Ministry of Fisheries to make recommendations for an investment program for the fishing fleet in the period 1963-65, submitted its report during the second quarter of 1963. The main theme of the proposed program is to promote investment in larger and more modern fishing vessels. The report called for the scrapping of 1,000 fishing vessels annually for the next three years and recommends that Government lending through the State Fisheries Bank and the District's Development Fund be directed largely to the financing of larger fishing vessels.

Pronouncements concerning Norway's future as a major pelagic whaling nation were pessimistic during the quarter when it was announced that Norway's most modern factoryship Thorshøvd was up for sale to the Japanese. Further concern was caused by the sale to Japan of the British factoryship Southern Harvester with its whale quota of 5 percent or 500 blue whale units. This not only meant the end of British pelagic whaling but also the end of Tønsberg's participation inasmuch as the Southern Harvester's crew and most supplies and equipment have been furnished by this Norwegian city. Concerned for the future of the 480 whalers who would be out of work and over the loss in foreign exchange involved, the Government refused to permit the sale of the Thorshøvd.

Norwegian whaling circles blame Norway's poor whaling results in the past several years on the decimation of the whale population due to overly large global quotas. At the 1963 International Whaling Commission talks in London, the Norwegian delegates pressed for a drastic reduction in the global quota and an inspection system. The agreed reduction from the 1962/63 quota of 15,000 blue whale units to 10,000 units in the 1963/64 season was far from Norway's wish for a 4,000-5,000 global quota, and the agreement on an international inspection system, the complete conservation of the humpback whale, and the partial conservation of the blue whale, failed to alleviate Norwegian fears that the faster and more modern catcher boats of the Japanese and the Russians will contribute further to the decimation of the whale population.

As of the end of the second quarter of 1963, the following Norwegian vessels were due to participate in the 1963/64 whaling season: the Thorshøvd with 7 catcher and 2 buoy boats; the Thorshavet and the Kosmos, both with the same number of supporting boats as the Thorshøvd; and Sir James Clark Ross with 5 catchers and 2 buoy boats. This amounts to an increase of one catcher over the previous year's number. Norway's 1963/64 whale quota is 2,800 blue whale units. (United States Embassy, Oslo, September 5, 1963.)

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NEW "POCKET" FACTORY STERN-TRAWLER:

A Norwegian shipyard delivered the 123-foot stern-trawler Rønstad to its owner-skip-

Norway (Contd.):

per about the end of this past summer. In general lines, the new vessel resembles the 205-foot stern trawler Løngva, and is already becoming known as the "pocket" factory trawler. The wheelhouse follows the Norwegian preference for being well forward, the engine room being aft, and the fishroom midships, with the processing deck above it. The 23-man crew is accommodated forward.

The Rønstad, carries fish heading, filleting, and skinning machines. The daily output of fish fillets on the vessel is estimated at 6 metric tons. The vessel is equipped with a plate freezer having a capacity of 6-8 tons per day. A total of 120 tons of fillets can be stored in the refrigerated hold at -25°C . (-13°F).

The vessel's trawl winch, which is housed under cover at the fore end of the trawl deck, is in two parts, of split-winch type. Each main drum has an auxiliary drum for the gilson wires, the trawl bridles being hauled in on the main drums as in side-trawler practice. The winches are controlled from an operating position forward on the trawl deck, from which both main and gilson drums can be controlled. Trawl warp meters indicate the amount of wire paid out from each drum. Hydraulic pressure for the winch is obtained from a two-stage pump driven from the fore end of the main engine through a hydraulic clutch, the latter being controlled from the deck.

The trawl doors of the Rønstad are hauled up to a lower position on the transom than usual and locked in position by a special device. They can then be reached easily from the deck above. The dan leno bobbins are hauled up to the winch, the ground rope bobbins being then hauled on by an electric capstan, which is also used to empty the cod end when it has been lifted on board by the gilson.

The trawl gear is handled by 3 men--2 on deck and 1 in the operating position. Fish pass through a hydraulically-operated hatch to the processing deck below. Also hydraulically operated is the safety gate on the after ramp, which, in its stowed position, is flush with the ramp surface.

A load-sensing device has been incorporated into the gallows blocks, which will react to a sudden increase in warp tension

brought about by a trawl hand-up, actuating an electric circuit which slows the engine revolutions or could, alternatively, reduce propeller pitch. In the same way, uneven tension of the warps can actuate the circuit and sound an alarm.

The vessel is powered by a Diesel engine which develops 765 hp. at 1,225 r.p.m., and drives a stainless steel controllable pitch propeller through a $4\frac{1}{2}:1$ reduction gear. There are two 117 hp. auxiliary engines. Ninety-six tons of fuel are carried. The main hull dimensions are: length over-all 123 feet, breadth 26.2 feet, depth to main-deck 13 feet, and depth to shelter deck 20.1 feet. Service speed is 11.5 knots.

The reported price of the Rønstad was 2.3 million kroner (US\$322,000), although it is not clear whether this includes the navigational and fish-finding equipment. (World Fishing, September 1963.)



Peru

FISH-MEAL INDUSTRY OBTAINS LOAN TO CONSOLIDATE DEBTS:

In recent months, Peru's great fish-meal industry has passed through a critical situation due to: (1) an off season in the anchoveta fishery; (2) unsold stocks of fish meal; (3) limited bank credits; and (4) tight financial situation due to heavy debts and lack of working capital on the part of a large majority of the plants. Investment in the industry has been estimated at \$190 million, of which \$37 million represent invested capital; the remainder, credits from banks, foreign and domestic suppliers, and financing organizations.

A start has been made in consolidating the debts of the fish-meal industry with the action of industry representatives in obtaining a \$10 million loan from a United States bank. Loan operations will be handled by the Banco Industrial del Peru, which will guarantee 25 percent of the amount of each loan made to individual plants. The remaining 75 percent will be guaranteed by the commercial banks to which plants are indebted. It is rumored that an additional \$5 million will be made available to the industry by other United States banks.

Compared with a total estimated indebtedness of \$153 million, a \$10 or \$15 million loan

Peru (Contd.):

is considered a small sum. However, it represents a start, and if the industry will use the available financing to pay off debts and to consolidate, and not continue increasing production capacity, the promising future predicted for the industry can be realized. (United States Embassy, Lima, September 26, 1963.)



Philippines

MARKET FOR UNITED STATES CANNED SARDINES:

Canned sardines are considered a staple item in the Philippines, and the maintenance of an adequate supply at reasonable prices is of such political importance that the Government has reduced tariffs from 15 percent ad valorem to 8 percent ad valorem (January 21, 1962), and it subsidizes about 40 percent of the imports.

The Government subsidization of imports is implemented by the National Marketing Corporation (NAMARCO) which offers periodic tenders. NAMARCO goods are imported tax-free and are sold through the NAMARCO system of selected Filipino retailers. About 60 percent of sardine imports, however, are handled through normal commercial channels. Total imports amounted to \$13.7 million in 1961 and \$6.6 million in 1962; thus commercial imports amounted to over \$8 million and almost \$4 million in 1961 and 1962, respectively.

A good opportunity for United States sardine packers is presented by the Government's decision to implement the boycott on trade with South Africa proposed by the United Nations General Assembly in November 1962. Since 1961 virtually all imports of sardines have been supplied by South Africa (more than \$5 million in 1962), but with this major competitor ruled out, the door is thrown open to other suppliers. Unless the current NAMARCO requirements (500,000 cases) can be met by United States or other suppliers, however, it is likely that the Government will waive the boycott as regards sardines; it has already been under strong pressure to do so.

The most popular sardine pack is that packed in tomato sauce. Natural sauce and spiced olive oil also have fairly significant appeal. However, cottonseed oil or soybean oil packs are not particularly favored in this market. The best-selling cans are 15-ounce ovals and 5-ounce tallis ("jitneys"). Flats are not considered salable in the mass market.

The Filipino consumer is extremely brand-conscious and often reluctant to try unfamiliar brands. On the other hand, he has a "built-in" preference for United States brands. United States packers interested in reestablishing a position in this market should seriously consider promotional campaigns designed to establish the image of United States sardines in general, as well as of their own brands.

Winning bids (c.&f. prices) for NAMARCO tenders on June 17, 1963, were as follows: South African canned sardines in tomato sauce: 48/15-oz., ovals, \$7.60 a case; 48/15-oz., tallis, \$6.15 a case; 48/8-oz., \$4.25 a case; and 100/5-oz., \$6.75 a case. Quotations (c.&f.) for Japanese canned sardines packed in tomato sauce were: 48/15-oz., tallis, \$5.00 a case; 24/15-oz., ovals, \$3.85 a case; and 100/5-oz., tallis, \$5.65 a case. (United States Embassy, Manila, September 20, 1963.)



Solomon Islands

FISHERIES POTENTIAL PROMISING:

A rich fishery awaits development around the British Solomon Islands, according to an Australian fisheries official who has been taking part in a research and training program. Using a 46-foot converted shrimp fishing vessel, which he sailed from Australia, the Australian official has been taking local crews to sea to learn fishing techniques, simple navigation, engine maintenance, and fish handling, as part of his duties as Fisheries Officer for the Protectorate.

Among the species which he reports as being plentiful are yellowfin and striped tuna, inshore bonito, and Spanish mackerel. Coral crayfish were also plentiful and were caught by hand at night by natives using torches.

The local fishing enterprise includes three cooperatives, one of which had developed a method of drying fish in the form of fish flakes which can be stored in polythene for some time. Some boatbuilding training has also been given, and locally-built 25-footers are now in operational use.

In an interview with the Australian magazine *Fisheries Newsletter*, the Fisheries Officer said that the development of Solomon Islands fisheries by commercial concerns would be welcomed. (*World Fishing*, September 1963.)



South Africa Republic

PILCHARD-MAASBANKER FISHERY, JANUARY-JUNE 1963:

The catch of the pilchard-maasbanker fishery off the Cape west coast of the South African Republic in the first 6 months of 1963 was 377,217 short tons pilchards, 12,782 tons maasbanker, and 14,634 tons mackerel--a total of 404,633 tons. By the end of June last year 400,394 tons pilchards, 63,263 tons maasbanker, and 19,321 tons mackerel had been caught--a total of 492,928 tons. At the end of June 1961, the total catch was 474,072 tons and for the same period in 1960, the total catch was 336,869 tons.

According to figures released by the Division of Sea Fisheries, the June 1963 catch was 77,966 tons pilchards, 322 tons maas-

South Africa Republic (Contd.):

banker, and no mackerel. This compares with 13,615 tons pilchards, 10,585 tons maasbanker, and 34 tons mackerel in June last year; and with 43,181 tons pilchards, 11,439 tons maasbanker, and 10 tons mackerel in June 1961.

The June 1963 catch yielded 18,014 short tons fish meal, 884,871 imperial gallons fish body oil, 4,605,080 pounds canned pilchards, and 214,968 pounds canned maasbanker. (The South African Shipping News and Fishing Industry Review, August 1963.)

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ANOTHER VESSEL CONVERTED FOR TUNA FISHERY:

A new offshore tuna fishing venture off the west coast of South Africa is to be made by a Cape Town company. The company has bought the refrigerated vessel Marinette (285 gross tons) which was previously used for food shipments to West African ports.

Modifications are to be made to the deck and the refrigerating system, and the Marinette will be equipped for long-line and pole fishing. The Marinette, which was built in 1955, is 108 feet long, has a 23-foot beam, and is powered by a 6 cylinder Diesel engine. She will be able to carry at least 120 tons of refrigerated tuna to port.

A company official in Cape Town said: "Of course, the project at this stage is purely exploratory, but we feel that it has great possibilities. Later we may get 1 or 2 more ships. The Marinette will be fully equipped to stay out for at least 40 days without re-fueling." (The South African Shipping News and Fishing Industry Review, August 1963.)

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NEW LARGE PLASTIC-GLASS FISHING VESSEL:

What may be the world's largest glass fiber and plastic fishing vessel should by now have been completed, according to a report in The South African Shipping News and Fishing Industry Review. The design plans called for a vessel 67½ feet in length with a beam of 21 feet, powered by a Diesel engine of 220 hp. at 1,800 r.p.m., driving a 52-inch propeller through a 4½ : 1 reduction gear.

Construction was done in a shipyard in Cape Town, South Africa, which had previously built smaller resin-glass vessels. The hull of the new vessel was built by a method known as "sandwich" construction. (A layer of foamed plastic is "sandwiched" between lay-ups of glass fiber and resin.) Plans called for a final hull thickness of 1¼ inches which would contain 40,000 square yards of glass mat or cloth. Unlike normal resin-glass lay-ups, the "sandwich" method does not require a highly polished rigid female mould. (World Fishing, September 1963.)



South-West Africa

FISHERIES TRENDS, AUGUST 1963:

South-West Africa's tanker Anella (about 5,500 tons) loaded all the available fish oil at Walvis Bay during the last week of June 1963. The entire shipment was destined for the United Kingdom.

The Anella was due back at Walvis Bay in November for another cargo of fish oil stock for the United Kingdom.

During the first half of July the quality of the fish, which has been the poorest for many years, improved and the oil yield rose to 11 to 12 gallons a ton of fish. The six factories were still curtailing canning operations in the hope that the quality of the fish would improve during August and September.

The first of two more fish oil bulk storage tanks at Walvis Bay was completed during the middle of July. The tanks will have a capacity of about 2,000 tons each. (The South African Shipping News and Fishing Industry Review, August 1963.)

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TWO NEW LICENSES GRANTED FOR FISH-REDUCTION PLANTS:

The Executive Committee of the South-West Africa Administration announced on August 24, 1963, that it had granted two new licenses for fish-reduction plants. One of the new plants will be located at Walvis Bay and the other at Luderitz. Each plant will have a quota of 90,000 tons of pilchards for reduction into fish meal and oil, and each is allotted a concession for 25 years. The license for

South-West Africa (Contd.):

Luderitz includes an additional export quota of 500,000 pounds of spiny lobsters. The plants will have to be in operation by 1965. (United States Embassy, Pretoria, Sept. 5, 1963.)



Taiwan

FISHERIES TRENDS,
JANUARY-JUNE 1963:

Taiwan's fisheries production during the first half of 1963 was estimated at 169,746 metric tons, about 3 percent above that in the same period of 1962. The increase would have been larger, except for a 22-percent decline in the yield from pond fish culture, following frost and drought damage.

Shrimp exports during the first half of 1963, are estimated to be about double the 1962 total exports. Most of these exports have been going to Japan.

In connection, with the development of a long-line tuna fleet, the authorities at Kaohsiung Harbor are pressing plans to construct a new fishing harbor. Government officials have, however, revised plans for the harbor, reducing the estimated cost from NT\$89 million (US\$2.2 million) to below NT\$60 million (US\$1.5 million).

In April the Land Bank (JCRR) and the Provincial Fishermen's Association agreed in principle to establish an NT\$30 million (US\$750,000) interest-free revolving loan fund to help rehabilitate debt ridden fishermen's associations.

During the 2nd quarter of 1963, the China (Taiwan) Fisheries Corporation continued technical cooperation agreement negotiations with several foreign fishing corporations, including those of Malagasy, the Philippines, and Thailand, in an effort to expand Taiwan's deep-sea fishery operations and provide outlets for the catch. (United States Embassy, Taipei, August 5, 1963.)



United Kingdom

BREAD MADE FROM FISH PROTEIN
CONCENTRATE EXHIBITED AT
NUTRITIONAL CONFERENCE:

The first firm in Great Britain to produce fish flour for human consumption is located in Aberdeen, Scotland, and produces large quantities of fish meal for animal feed. This firm is now ready to go into large-scale production of this new meal for export to underdeveloped countries fighting the problem of malnutrition. The firm has been conducting research on fish meal refinement for almost 20 years. This research has resulted in a highly refined flour that can be incorporated into any food.

In mid-August this year their specially baked loaves of bread were on show at an Edinburgh exhibition on nutrition. The bread (baked in Edinburgh) with fish flour sent from Aberdeen, had a faint taste of fish, depending on the fish flour concentration.

The Aberdeen firm's exhibit which was concurrent with the International Congress on Nutrition, was organized by the British White Fish Authority which has actively supported the venture.

The exhibit aroused worldwide interest among delegates on the use of proteins in basic foodstuffs.

The managing director of the Aberdeen firm in an interview, stated that the value of fish flour was in its high protein content. The fish meal had been refined to such an extent that, for human consumption, the flour was more than 80 percent protein. Half an ounce of the flour, he explained, would be quite sufficient to cover the daily protein requirement of one man.

The Aberdeen area officer of the White Fish Authority, said they now realized fish was the best source of protein concentrate in the world. It was "the practical solution to the fear of hunger in underdeveloped countries."

Cod, whiting, and haddock are the only fish used in the milling process at present. (Fish Trades Gazette, August 17, 1963.)

LOANS AND GRANTS FOR FISHING
VESSELS AS OF JUNE 30, 1963:

British White Fish Authority figures released in August 1963 reveal that up to July,

United Kingdom (Contd.):

358 grants have been approved this year for new near- and middle-water trawlers.

Twenty-six grants have been approved for conversion of near- and middle-water trawlers to oil fired, steam or Diesel propulsion and grants for new vessels and new engines for the inshore industry number 882 and 546, respectively.

Of grants for new trawlers, Aberdeen received 102, Grimsby 83, Lowestoft 75, Fleetwood 48, Granton 22, Milford Haven 13, North Shields 12, Hartlepool 2, and Hull 1. For conversions, Lowestoft got 5, Milford Haven 13, and Aberdeen 8.

Grants to the inshore industry were split 406 for new vessels and 336 for new engines to England; 16 for vessels and 30 for engines to Wales; and 460 for vessels and 180 for engines to Scotland.

Since the program started, grants worth £12,588,809 (US\$35.2 million), have been approved. Total value of loans approved is £31,157,657 (US\$87.2 million). (The Fishing News, August 30, 1963.)

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NEW TRAWLER ORDERED FROM POLAND:

A new conventional side-fishing deep-water trawler has been ordered by one of the large fishing companies in Grimsby, England, from a shipyard in Gdynia, Poland.

The new vessel, which is due to be delivered in February, 1965, will be the first Grimsby trawler to be built in Poland.

The trawler will be 184 feet 3½ inches between perpendiculars, 207 feet 3½ inches over-all, with a moulded breadth of 32 feet 9½ inches, and a mean draught of 14 feet 6 inches.

The main engine will be a Diesel engine developing 1,800 b. hp., at 250 r.p.m., and is expected to give a service speed of 15 knots. The winch engine will be a 390 hp. Diesel and the winch will have a capacity of 1,600 fathoms of 3-inch warp. The bunker capacity of 194 tons will enable the trawler to stay at sea for up to 30 days. The fishhold capacity will be 20,270 cubic feet.

All the latest electronic equipment will be provided and will include a gyro compass and automatic steering, two radars, and automatic direction finder.

A novel feature of the crew's quarters is the provision of a sick bay, the first to be provided in a Grimsby trawler.

The galley is all-electric and a fully equipped workshop with lathe and drills is provided for the engineers. (Fish Trades Gazette, September 17, 1963.)

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SOME AGREEMENT REACHED ON SHARE-SYSTEM FOR CREW OF AUTOMATED STERN TRAWLERS:

Talks between the British owners of an "automated" small size stern trawler and the Transport and General Workers' Union have produced near-agreement over manning and remuneration scales for members of the crews of the revolutionary, 5-man crew class ships.

With the push-button trawlers, the style for which has been set by the British firm, high mechanization cuts down the crew for North Sea vessels by over half from the customary 11 to 5.

As such, these trawlers are not covered by any existing agreements.

But after the first stage of negotiations, the regional secretary of the Union and the management have reached virtual agreement.

The vessel's owners commented that further negotiations would take place and felt that all points would then be clarified.

The new type vessel was due to be delivered in late September. She will carry two officers, and three crewmen. (The Fishing News, August 30, 1963.)

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TRAINING COURSES AID YOUNG MEN ENTERING TRAWL FISHERY:

Improved training facilities are now available to young men wishing to become trawlermen in Hull, England. They are being put into effect by a Recruitment and Training Officer on loan to the Hull Fishing Vessel Owners' Association.

United Kingdom (Contd.):

Cook's assistants are now placed on trawlers by the Recruitment and Training Department so that any young man who wants to take up this work applies directly to the Training Officer instead of offering his services to individual firms. The Officer then arranges for the recruit to have a medical examination, records his name, and he is "called up" when his turn comes.

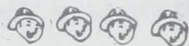
New recruits for the engineroom are given a trip in a trawler as a supernumerary and for this they are paid. At the end of the trip they are then sent on a four-week induction course at the Nautical College, after which they are available to firms as firemen proper.

It is hoped that all future entrants into the engineroom will be trained under this program. In due course, as the number of Diesel-driven trawlers increases and steam-driven trawlers decreases, it is planned to start a similar program for Diesel engine operators which would eventually take the place of the present course in steam engines.

The deckhand-learners' course has been increased from 4 to 6 weeks and on completion of the 6 weeks, learners will be sent to one of the net lofts for a further week's practical training in net-mending and so on. The course also includes two new lectures, "The Meaning of Discipline" and "Safety at Sea."

The biggest improvement is probably in the training of firemen to become second engineers. This course, which was originally 2 weeks steam and 2 weeks Diesel, has been increased to 6 weeks steam and 10 weeks Diesel. It is hoped to award some form of certificate on completion of the course.

A new regulation has been introduced to ensure that no man may sail as bosun or mate without holding a First Class Net-Mending Certificate. The bosuns' course has included this certificate, but it has been possible for a deckhand to take his mate's certificate and eventually sail as mate without ever having held a First Class Net-Mending certificate. Future courses for mate will include instruction and examination for this certificate. (The Fishing News, August 23, 1963.)



Uruguay

FISHERY RESOURCES TO BE STUDIED:

Although Uruguay has access to considerable fish reserves in an area estimated at one million square kilometers, this resource has been underexploited. In 1961, of 6.1 million tons landed in South America only 9,000 tons were landed in Uruguay. The use of fish meal or flour is almost completely undeveloped. The domestic market for fishery products is limited and the per capita consumption per year is only 6.6 pounds as compared to about 240 pounds of meat.

The fishing industry in Uruguay is divided into Government and private enterprises. In 1957, the Government produced 25 percent of the total Uruguayan production with unit costs twice as great as private enterprise. Since 1957, the Government enterprise's proportion has steadily decreased to 9 percent in 1961. Efforts are now being made to increase the efficiency and productivity of the Government fishery unit. The Government, the University of the Republic, and the Ministry of National Defense have set up a joint work group to study and evaluate fishery resources. (United States Embassy, Montevideo, September 7, 1963.)



Venezuela

JOINT JAPANESE-VENEZUELAN TUNA-PROCESSING AND FREEZING VENTURE PLANNED:

According to an official of the Export-Import Bank of Japan, an agreement has been reached between a consortium of Japanese fishing companies and a group of Venezuelan industrialists for the formation of a jointly-owned company, 50 percent subscribed by Japanese interests and 50 percent by Venezuelan interests. Capitalization of the company is to be Bs 4 million (US\$881,000) and the registration was to be made formally on October 11, 1963.

The jointly-owned company will construct near Guiria on the Paria Peninsula in eastern Venezuela a fish cleaning and freezing plant with facilities to convert the fish waste into fish meal at a total cost of approximately Bs 3-1/2 million (\$771,000). In connection with this investment, the Export-Import Bank of Japan will loan Bs 6 million (\$1,322,000) to the corporation for the construction of dock facilities.

The cleaning and freezing plant will process tuna and will have a daily capacity of 450 metric tons of processed fish plus 250 to 300 metric tons of fish meal made from the waste. Construction of the plant was to begin at the end of October, 1963 and should be completed 14 months later or in December 1964 if the construction schedule is followed. The plant will employ approximately 600 workers when in full production.

All of the fish processed will be supplied on contract by Japanese fishing vessels operating in Atlantic waters at a

Venezuela (Contd.):

considerable distance from Venezuela. The fishing operations will not be carried on by the corporation. The vessels will not be of Venezuelan registry and as the catch will come from outside territorial waters, a duty of Bs 2.00 per kilogram (about 10 U.S. cents a pound) would be due on the fish landed in Venezuela.

However, special arrangements have been made with the Venezuelan Government whereby none of the fish or fish meal will be sold by the corporation for consumption within Venezuela and the Venezuelan Government will waive the duty.

A group of Japanese experts has made a study of the waters of the Gulf of Paria and of those off the Territory Delta Amacuro including those of the delta of the Orinoco River, all of which are presently comparatively unexploited. It was the conclusion of the Japanese experts that these waters have ample resources to supply a fish meal industry and a shrimp processing plant. Therefore, if the tuna cleaning and freezing plant is successful, the corporation plans to enlarge the facilities in 1965 at an approximate cost of Bs 2-1/2 million (\$551,000) so as to include both a fish meal and a shrimp processing plant. (United States Embassy, Caracas, September 26, 1963.)

Note: Bolivares converted at official free market rate of 4.54 bolivares equal US\$1.

**Viet-Nam****MECHANIZATION OF FISHING FLEET:**

There were 5,247 powered fishing craft in Viet-Nam at the end of August 1963, according to a census by the Fisheries Directorate's provincial representatives. At the end of 1962, the Fisheries Directorate reported only 3,600 motorized fishing vessels, based on estimates which were understated. Non-motorized fishing craft number 36,749. About 45 percent of the motorized vessels are in the important fishing communities of Phuoc Tuy, Binh Tuy, and Binh Thuan Provinces.

Motorization of the fishing fleet began in 1957 and has been one of the main reasons for a substantial increase in Viet-Nam's

commercial fish catch. (United States Embassy, Saigon, September 26, 1963.)

**Zanzibar****FISHERIES DEVELOPMENT:**

The Government of Zanzibar is the controlling stockholder in the Zanzibar Fisheries Development Co., which was formed to exploit the sardine and tuna resources off the East African Coast and to develop curing, cold storage, and processing facilities.

Zanzibar is centrally located on a large area of water which is protected throughout both monsoon periods. Trials conducted off Zanzibar over the past 18 months have shown that sardines can be caught in commercial quantities throughout the year by purse-seine vessels fishing at night with lights. The 2 fishing craft operated by the Zanzibar Fisheries Development Company can catch between 100 to 150 metric tons of sardines per lunar period. The company is now building a purse-seine vessel to explore tuna stocks.

The Company has completed a curing house with a capacity of 5 tons of sardines per day. Machinery has been ordered for a cold-storage plant with a capacity of 60 tons which should be in operation early in 1964.

The Company is cooperating closely with the East African Marine Fisheries Research Organization which is making a study of pelagic fish off the East African Coast in order to determine their potential for commercial fishing. (United States Consul, Zanzibar, September 8, 1963.)

**FISH CURING METHODS**

"Fish curing comprises all methods of preservation except refrigeration and canning. It includes (1) the drying, smoking, salting, and pickling of fish, (2) various combinations of these methods, and (3) miscellaneous methods such as the use of vinegar and fermentation processes or ripening."

--Principles and Methods in the Canning of Fishery Products,
Research Report No. 18 (page 1).

Foreign Fisheries Briefs

CUBAN FISHERIES CENTER UNDER CONSTRUCTION WITH SOVIET AID:

A Cuban fishing port is under construction, with Soviet technical and economic aid, in Ataras Cove in Havana Bay. A total area of about 25 acres is involved. Included in the facilities will be docks, a shipyard, a cold-storage plant, canneries, warehouses, and a fish-reduction plant. Large warehouses have already been built for the storage of construction materials and supplies. About 2,000 workers will be occupied during construction; five major buildings and a dock area of 2½ acres on concrete piles are being built. The cold-storage plant will be about 825 feet long and about 200 feet wide with a storage capacity of 10,000 tons. The port will be equipped with radio, telephone, the latest indoor and outdoor lighting facilities, radar, and television.

The agreement for the construction of the Soviet-Cuban financed fishing port was announced on September 25, 1962, by Cuban radio and television which broadcast the signing ceremony between the Cuban Premier and Soviet Fisheries Minister. The \$12 million cost of the port will be shared equally by the Soviet Union and Cuba. Earlier on August 5, 1962, a Soviet-Cuban fisheries agreement was signed in Havana providing for Soviet aid to develop a Cuban commercial fishing industry. As a result of the August agreement, the Soviets sent 5 or 6 trawlers to Cuba on a loan basis for a year.

The fishing port in Havana Bay, in addition to serving Cuban needs, is expected to facilitate fishing operations of the Soviet fleet in the Western Atlantic Ocean for an agreed-upon period of 10 years. It has been estimated that about 30 Soviet fishing vessels have thus far been operating out of Cuban ports.

CUBA PROMOTING CONSUMPTION OF FISH:

The Cuban Government is conducting an advertising campaign to persuade Cubans to eat merluza (assumed to be whiting), which is being landed by Soviet fishing vessels. It was reported that shellfish have always been popular in Cuba, but finfish were seldom eaten. Fish were removed from the Cuban

list of rationed items on June 3, 1963, and the Government planned to increase Cuban consumption of fishery products by 220 percent this year. (Fish Trades Gazette, London, August 10, 1963.)

SOVIETS FIND NEW FISHING GROUNDS IN INDIAN OCEAN:

Soviet fishermen are reported to have found a "new fishing ground" in the southern Indian Ocean where they have located large resources of pelagic fish. In the Gulf of Aden, exploratory fishing is under way with "new equipment." (Unpublished sources.)

SOVIET FISHING FLEET IN NORTHWEST ATLANTIC, AUGUST-SEPTEMBER 1963:

Until August 1963, the Soviet fishing fleet on and near Georges Bank in the Northwest Atlantic Ocean was estimated to have numbered about 200 vessels. The fleet size in the area remained fairly constant during the summer, although there was a rotation of vessels. In September, the number of Soviet vessels in the area was reduced to about 100. (Unpublished sources.)

SOVIET FISHING EFFORT DECLINES IN EASTERN NORTH PACIFIC AND BERING SEA:

Beginning in early June 1963 and continuing through July, the Soviet fishing effort in the eastern North Pacific Ocean and Bering Sea remained fairly constant, comprising a fleet of about 200 vessels. In early August, the size of the Soviet fleet in the area began to decrease. Although the major effort still continued to be trawling for ocean perch in the Gulf of Alaska, the Soviet fleet in the eastern North Pacific and Bering Sea had been reduced to about 65 vessels by early September. Many of the vessels which had left the area are reported fishing for herring and saury off the coasts of Siberia and the Kuril Islands. (Unpublished sources.)

SOVIET SAURY FISHING VESSELS TESTING FLUORESCENT LIGHTS:

This year (1963), Soviet saury fishing vessels from Sakhalin are being equipped with fluorescent lamps for night fishing. The new lamps consume considerably less electric current than the older incandescent lamps. Experiments are continuing on the use of the new lamps. (Unpublished sources.)

Foreign Fisheries Briefs (Contd.):

SOVIETS TEST NEW METHOD FOR OPERATING LARGE FREEZER TRAWLERS:

A large freezer stern trawler is now operating out of Vladivostok in what the Soviets call the "voyage method." First adopted during 1963, the stern trawler remains at sea for 90 to 95 days including the round trip from port to the fishing grounds. Between trips the vessel remains in port 10 to 12 days. The vessel processes its entire catch and the Soviets claim that a tremendous increase in productivity has been achieved. Under the old method of operations, the large freezer trawlers, which were at sea for long periods, transferred the catch to cargo vessels at sea. (Unpublished sources.)

SOVIET WHALING FLEET PREPARING FOR ANTARCTIC SEASON:

In September 1963, two Soviet whaling factoryships, the Sovetskaya Ukraina and the Slava, both with decks equipped to handle helicopters, were being readied for a joint Antarctic whaling expedition. In addition to the modern factoryships, the fleet will include 30 whale catcher boats, a scientific research vessel, and support ships. The Soviets have stated that their whaling fleet will also conduct research on the fishery resources of the Antarctic. (Unpublished sources.)

Notes: (1) These briefs were abstracted and compiled by the U.S. Bureau of Commercial Fisheries, Branch of Foreign Fisheries and Trade.

(2) See Commercial Fisheries Review, September 1963 p. 97; August 1963 p. 112.



THE ROLE OF THE FISH AND WILDLIFE SERVICE

A major problem facing the nation is adjusting its fish and wildlife resources to the changing combinations and conditions of land and water and in meeting the challenge of developing the food potential of the lakes and oceans.

To that task the Fish and Wildlife Service is dedicated. The degree of its success in that important undertaking is the measure of its contribution to the cause of conservation.

Science helps us perpetuate our fish and wildlife.

Helping adjust fisheries and wildlife resources to food and recreational needs of the Nation is the task of the Fish and Wildlife Service

FISH AND WILDLIFE SERVICE
U. S. DEPARTMENT OF THE INTERIOR

