International

FOOD AND AGRICULTURE ORGANIZATION

INTERNATIONAL TERMINOLOGY FOR FISHERIES BIOLOGY: Experts from Canada, France, Germany, Italy, Netherlands, Sweden, United Kingdom, and United States were invited by the Biology Branch of FAO Fisheries Division to collaborate in the study of the living aquatic resources of the world, according to the February 1955 report from the FAO Director General. This task involves a great deal of reading and searching of scientific literature, as well as drafting definitions of terms, and classifying and planning a documentation program.

The experts met in Paris from December 8-14, 1954, and discussed at great length problems regarding terminology, classification, and documentation, as well as a bibliographic program for fisheries biology. They drafted a program for FAO Fisheries Division concerned with its work in assessing the scope and content of fisheries science. It is hoped that this will help the standardization of classified terms. They also recommend the use of a provisional decimal classification of fisheries science, primarily for the internal use of the Organization, but also with the view to its being used by other workers and eventually its possible inclusion in the Universal Decimal Classification. Other recommendations consisted in collaborating closely with the editor of "Bibliographia Oceanographica" towards the compilation of comprehensive bibliographic lists of biological publications relevant to both marine and inland fisheries. Dr. George S. Myers represented the U. S. Fish and Wildlife Service at the meeting.

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SURVEY OF WORLD'S FISHERY RESOURCES PROPOSED: A proposal for a survey and appraisal of world agricultural, fisheries, and forestry resources in relation to world needs will be considered by the Food and Agriculture Organization at its November conference, according to that agency's annual report prepared for the United Nations Economic and Social Council and distributed at U. N. Headquarters. The report is one of a series received from U.N. specialized agencies for consideration at the Council's 20th session which opened July 5 in Geneva.

Noting that concern has been expressed whether the world can meet the requirements of the "rapid growth of population now taking place," the report indicates that FAO could be expected to give "a reasonably authoritative answer to such questions as to how resources for the production of food and agricultural and forest raw materials can be made adequate to meet the needs of the existing population or of the much higher population already foreseeable."

Such an answer could be given only on the basis of "a global survey of resources in respect of their potentials for production so far as this can be judged at present levels of knowledge," the report states, adding that the FAO Conference at Rome Headquarters in November will discuss the proposal.

The proposed survey would be of "fundamental importance for FAO's practical task of assisting countries to develop unexploited resources and to raise crop,

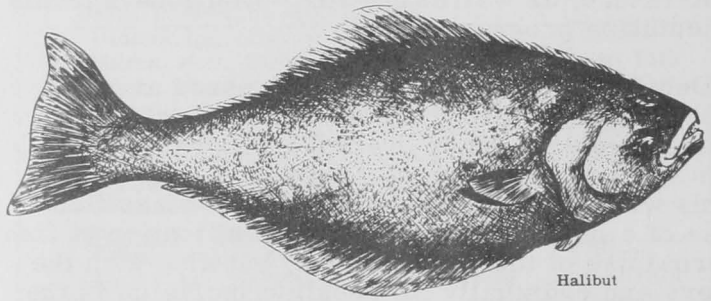
livestock, fisheries, and forestry yields in the areas already under exploitation." Such a survey has already been made for forestry.

Assessing the world's "renewable resources" is one of five fields of activity suggested by the Director-General for FAO's work toward its ultimate goal: "to enlarge human well-being by increasing and improving the production, distribution, and utilization of food and other products of agriculture, forestry, and fisheries."

The other fields are: assessing the needs of people for better nutrition and higher standards of living; improving the quantity, quality, and efficiency of production; achieving methods of distribution and consumption which will most nearly meet the goal of enlarged human well-being; and educating producers, distributors, and consumers in the adoption of more rational and progressive methods.

INTERNATIONAL PACIFIC HALIBUT COMMISSION

AREAS 2 AND 1B CLOSED JUNE 5: The International Pacific Halibut Commission has announced the closure of Pacific halibut Areas 2 and 1B to halibut fishing at 6:00 a.m. (P.S.T.) June 5, 1955, until the commencement of the second fishing season in these areas.



Halibut

The Commission estimated that the 26.5-million-pound limit set for Area 2 would have been caught, and Area 1B which had no quota also was closed when the catch limit for Area 2 was attained.

The opening date for all halibut fishing in the Pacific regulatory areas this year was May 12 at 6:00 a.m. In 1954 the opening date was May 16, and Areas 2 and 1B in that year also closed June 5. This means that halibut fishing in Areas 2 and 1B this year lasted 24 days as compared with 21 days in 1954 (the shortest season on record for these areas), 24 days in 1953, 26 days in 1952, 28 days in 1951, and 32 days in 1950.

The second fishing season in Areas 2 and 1B shall commence at 6:00 a.m. (P.S.T.) on July 27 and shall terminate at 6:00 a.m. (P.S.T.) on August 3 with no catch limit, and said areas shall be closed to halibut fishing thereafter until reopened in 1956.

Area 2 includes all Convention waters off the coast of the United States and Alaska and Canada between Area 1B and a line running through the most westerly point of Glacier Bay, Alaska, to Cape Spencer Light and south one-quarter east, and to be exclusive of the nursery areas defined in the regulations.

Area 1B includes all Convention waters between a line running northeast and southwest through Heceta Head Light and a line running northeast and southwest through Willapa Bay Light on Cape Shoalwater.

Areas 3A and 3B are still open to halibut fishing and will close when the catch limit for Area 3A of 28.0 million pounds has been attained.

LATIN AMERICA TERRITORIAL WATERS

PERUVIAN CONGRESS RATIFIES TRIPARTITE AGREEMENT ON 200-MILE TERRITORIAL-WATERS ZONE: The Peruvian Congress convoked for a special session beginning May 5 to ratify the Tripartite Agreement concluded between Peru, Chile, and Ecuador establishing maritime sovereignty over a zone of 200 miles from

the coast (Declaration of Santiago), reports a May 5 U. S. Embassy dispatch from Quito.

CONFERENCE OF THE PERMANENT COMMITTEE OF SOUTHERN PACIFIC: It was announced on May 3 that the Governments of Chile and Peru have designated their respective delegations to the Conference of the Permanent Committee of the Southern Pacific scheduled to be held in Quito beginning the first week of July. As of May 4 the Ecuadoran Government had not yet named its delegation to the Conference.

ECUADORAN CABINET DISCUSSES PROTECTION OF FISHERIES RESOURCES: A meeting of the Ecuadoran Cabinet was held on April 29 during which the Acting Minister of Foreign Affairs discussed the protection of fisheries resources off the Ecuadoran coast, as well as the defense of Ecuador's national sovereignty over the territorial sea up to 200 miles seaward in conformity with the Declaration of Santiago. The Cabinet (Consejo de Ministros) gave a vote of congratulations to the Minister, as well as the Minister of Economy, for the manner in which they were handling fishing problems, particularly as regards foreign fishing vessels that have been fined for "violating territorial waters."

UNITED NATIONS

ROME MEETING ON WORLDWIDE FISHERIES CONSERVATION: The Rome International Conference on "the conservation of the living resources of the sea" attended by experts from countries in many parts of the world ended on May 10. The purpose of the Conference was to examine all fishery conservation techniques, both national and international, which have been employed to date and see how they could be applied in areas where conservation is needed but where little or nothing has so far been done. The United States delegation was expected to leave Rome by mid-May for Geneva, Switzerland, where the report of the Conference will be submitted to the International Law Commission.

The Conference agreed on objectives of conservation, types of scientific information required, types of conservation measures applicable, and applicability procedures in present conventions to existing problems not now covered by conventions. They also agreed upon the proposal for resolving disagreement through findings of qualified experts and the principle that all states fishing a stock of fish accept responsibility to cooperate in conservation programs.

The problem of special rights of coastal states was agreed to be outside the province of the Conference, but this problem was included in Conference conclusions with recommendations for further study.

The final report and conclusions were accepted by all but a few delegates who filed reservations. Over-all results of the Conference were considered satisfactory, or better, by most delegations.

TRADE AGREEMENTS

JAPANESE-NATIONALIST CHINA TRADE AGREEMENT INCLUDES DRIED AND SALTED FISH: The Governments of Japan and Nationalist China (Formosa) agreed to extend the present trade agreement to cover the period April 1, 1955, to March 31, 1956. Under the agreement Japan will ship Nationalist China dried and salted fish valued at approximately US$3.5 million during the period. Nationalist China will not ship any fishery products to Japan under this agreement, reports an April 25 U. S. Embassy dispatch from Taipei, Formosa.

WHALING

WORLD WHALE- AND SPERM-OIL PRODUCTION, 1955: World production of whale and sperm whale oils in 1955 is forecast at 415,000 and 85,000 short tons, respectively, as compared with 455,000 and 75,000 tons in 1954, according to the May 9 Foreign Crops and Markets, a U. S. Department of Agriculture publication. A smaller output of whale oil and a much larger production of sperm oil during the 1954/55 Antarctic pelagic season largely account for the respective changes from last year in the total outturns forecast for 1955 (see table).

Antarctic production of baleen whale oil in the past 5 years, including the production of 3 South Georgia shore stations, has accounted for nearly 90 percent of the world supply. During the same period oil produced from sperm whales taken in this area has made up slightly less than one-half of the total output of sperm oil. Numerous shore-station operations in scattered parts of the world and sperm whaling by factoryship, mainly off the coast of Peru, account for the remaining production. Those countries which normally engage in Antarctic whaling--Norway, United Kingdom, Japan, Netherlands, Panama, Union of South Africa, and the Soviet Union--produce the bulk of the world's whale oil. Australia's production of whale oil also has been substantial in recent years.

World Whale- and Sperm-Oil Production by Major Producing Countries, 1955 with Comparisons

Country	Whale Oil			Sperm Oil		
	1955 1/	1954 2/	1953	1955 1/	1954 2/	1953
	(1,000 Short Tons)					
Norway	138	188	148	26	7	6
United Kingdom	77	90	81	11	9	10
Japan	69	58	44	16	15	6
Netherlands	11	17	19	1	1	3/
Panama	27	-	29	3/	10	2
Union of South Africa	21	31	33	6	4	5
Soviet Union	33	32	31	15	15	14
Australia	17	19	19	-	-	-
Argentina	9	10	6	3/	3/	1
Chile	3	3	3	3	3	3
Portugal 4/	-	-	-	4	4	3
Others	10	7	7	3	7	5
World Total	415	455	420	85	75	55

1/ Forecast.
2/ Preliminary.
3/ Less than 500 short tons.
4/ Production of Azores and Madeira Islands.

Nineteen factoryships and about 230 catcher boats engaged in Antarctic pelagic whaling in 1954/55. The combined production of whale and sperm oil, according to provisional data, was 383,657 short tons, or slightly less than in 1953/54, reports the United States Embassy at Oslo. Whale oil output alone was down about 10 percent but sperm-oil production was twice that of the previous season.

In addition to Antarctic pelagic operations, production of whale and sperm oil by the 3 shore stations on South Georgia was reported at 32,967 and 763 tons, respectively. This compares with 32,882 tons of whale oil and 1,620 tons of sperm oil in 1953/54.

The catch of baleen whales in the 1954/55 Antarctic season, provisionally reported at 15,300 blue-whale units, was well under the maximum catch quota of 15,500 units established by international agreement. This may account partly for the lower outturn of whale oil in the past season, as the 1953/54 catch of baleen whales reached 15,456 units. No maximum quota has been established for the catch of sperm whales, however, and the increase in Antarctic production this season was due largely to more favorable prices.

EASTERN PACIFIC OCEANIC COUNCIL--CORRECTION

The Eastern Pacific Oceanic Council, an organization for the purpose of furthering oceanographic and biological investigations in the eastern Pacific for the benefit of fisheries, was organized at an informal meeting held at the Scripps Institution of Oceanography in California on November 2 and 5, 1954. The March 1955 Commercial Fisheries Review, page 48, incorrectly reported on the meeting under the heading "Pacific Science Association," and that the meeting was an informal conference

of the Pacific Science Association. The Eastern Pacific Oceanic Council has no formal connection with the Pacific Science Association, although the work of both groups is closely related.

Angola

FISH-OIL INDUSTRY: Angolan fish-oil production appears to have averaged about 3,000 short tons per year from 1950 through 1952 and about 7,000 tons were produced in 1953. Production may have been near 10,000 tons in 1954, according to Foreign Agriculture Circular of April 9 (FFO 11-55), a U.S. Department of Agriculture publication. The available information indicates there has been a steady increase from production of a few hundred tons per year in the period 1940-1945. Annual exports are believed to have varied widely and to have averaged about 3,000 tons in the last few years. There may have been as much as 4,500 tons in some years.

It is expected fish-oil production will increase. There is a growing internal market for fish, transportation facilities are being extended in the interior, and there is a good supply of many kinds of fish in the coastal waters. This trend is indicated by issuance of licenses for 23 new fish-oil installations in 1952 and 16 in 1953. About 31 of these newly-licensed plants were installed and in operation by the middle of 1954.

The Angolan fishing industry centers in the coastal districts of Lobito and Mocamedes. There are many small processors of dried fish, fish meal, and fish oil in the coastal towns from the vicinity of Benguela to Bafa dos Tigres to the south. The fishing industry is of importance because it supplies a protein food in the diet. Modern plants are located at Baia Farta and Samba Marie. Sun drying of fish is being replaced by mechanical driers and centrifugal extractors for processing meal and oil are being installed in some plants previously using presses. Improvement in processing methods and mechanization of all plants is now required and additional production of higher-grade products may result. A considerable part of the production is used in the Angolan fish-canning industry, but fish oil is not used industrially in Angola. The fish-canning industry also uses the commercial production of peanut oil.

Argentine Republic

FISHERIES PRODUCTION EXPECTED TO INCREASE: The second Five-Year Plan (1952-57) of the Republic of Argentina foresees an increase in fish production of about 185 percent above the average for 1947-51 (67,000 metric tons), and to reach a total of 200,000 tons in 1957.

To obtain such an increase, a coordinated research program for the systematic investigation of the continental seas of Argentina was started in May 1954. These investigations are to be carried out at sea and in various scientific institutions of the country, reports the January-March Fisheries Bulletin published by FAO.

The program includes (1) physical, chemical, and biological studies of the sea; (2) study of the geological characteristics of the sea bottom; (3) study of the areas of major concentration of hake (merluza), a basic resource for the trawl fisheries; (4) study of the populations of hake covering age composition, growth, feeding habits, reproduction, and migration; (5) investigation of the correlation between the variations of productivity of the seas and the natural fluctuations in the annual yield of commercial fisheries; (6) calculation of exchanges between the sea and the atmosphere for future climatologic predictions based on oceanographic data.

The following institutions will be cooperating in this program: The Oceanography Branch of the Division of Navigation and Hydrography, the recently created

Fisheries Research Branch in the Argentine Fish and Wildlife Service (Direccion General de Pesca y Conservacion de la Fauna), the National Institute for the Investigation of Natural Sciences "Bernardino Rivadavia;" and the School of Sciences of the University of Buenos Aires. Scientists from other institutions will also take part.

Unloading and packing fish at fish wharf, Mar del Plata, Argentina

The first research expedition was conducted during May and June 1954 with the oceanographic vessel Madryn of the Ministry of the Navy, in the main trawl fishing areas, between latitudes 36° S. and 42° S. The chemists, general biologists, and fishery biologists taking part in this investigation were divided into working groups of three members each, covering the study of plankton, benthos, physical oceanography, and commercial fisheries.

Observations and collections were made in 53 oceanographic stations from the surface to a depth of 1,600 feet. On board the vessel determinations of phosphates, alkalinity, and pH were made. Water samples for determining salinity, oxygen, and other elements were analyzed by the Oceanography Branch of the Ministry of the Navy, and samples of bottom sediments are being studied in the National Institute for the Investigation of Natural Sciences. Fish collections have been distributed to this Institute and the Fisheries Research Branch for examination.

Concurrently with this expedition, fishery biologists went out with the trawlers to make a general study of the species caught with particular regard to the yield of hake per haul in the areas where oceanographic observations are being made.

The Madryn will make further oceanographic expeditions, one during each season of the year, to obtain a complete cycle of observations, and each month fishery biologists will go out in different types of fishing boats to make continuous observations to collect samples of hake, pursue the study of the life cycle of this fish, and to determine the fishery potentialities of the Argentinian waters.

This research program, which is being initiated and developed in the Argentine, at present covers a limited number of related oceanographic and fisheries problems, however, these are well defined and of immediate interest to the country. It also proves the advantage of cooperation between the institutions engaged in a combined effort which permits a maximum yield with a minimum of expense.

The final results of these investigations will be used as basic data for the composition of fishing charts, which will be edited by the Division of Navigation and Hydrography in cooperation with the Argentine Fish and Wildlife Service. They will also help to establish norms to be followed in the exploration of the fisheries resources of the country.

Australia

IMPORTS OF CANNED SARDINES AND SALMON ALLOWED FROM DOLLAR AREA: The Australian import control authorities announced recently that imports of canned sardines from the dollar area will be permitted in 1955, reports the May 14 Foreign Trade, a Canadian Government publication. This product has been a prohibited import from the dollar area in recent years. In addition, it has been announced that the arrangements for imports of canned salmon from the dollar area which were made in 1954 will be continued this year.

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TUNA MARKETING TRENDS: Australia's young tuna industry has been suffering from growing pains, reports the February Fisheries Newsletter, an Australian fishery magazine. Marketing problems, temporary suspension of buying by canneries on the south coast of New South Wales, and price reductions caused misgiving and brought a flood of wild statements. But these events should prove beneficial in the long run and help put the Australian tuna industry on a sound footing.

Table 1 - United Kingdom Wholesale Canned Tuna (Fancy in Oil) Prices

Date	Peruvian (C.I.F. + 10% duty) Per Dozen 7-oz. Cans		Australian (C.I.F.) Per Dozen 7-oz. Cans	
	Stg.	US$	Stg.	US$
1954				
July	18/-	2.52	18/4	2.56
August	16/6	2.30	-	-
November	16/3	2.27	15/6	2.16
	14/4	2.00	-	-

Canned and raw tuna are world trade commodities. Tuna is the first Australian fish to attain that status and it is the first Australian fish product which potentially can match imported fish in quality and price. Tuna must be regarded differently from Australian salmon, barracouta, and the minor species canned in Australia. Taking a long view, the tunas appear to be the only species which can provide the mainstay of a strong Australian fish-canning industry.

Table 2 - Australian Tuna Production 1954/55 and Comparisons

Season	Pounds (round weight)
1954/55 (to 12/17/54)	1/ 1,400,000
1953/54	1,273,601
1952/53	683,445
1951/52	214,008
1950/51	1/ 40,859
1949/50	807,839

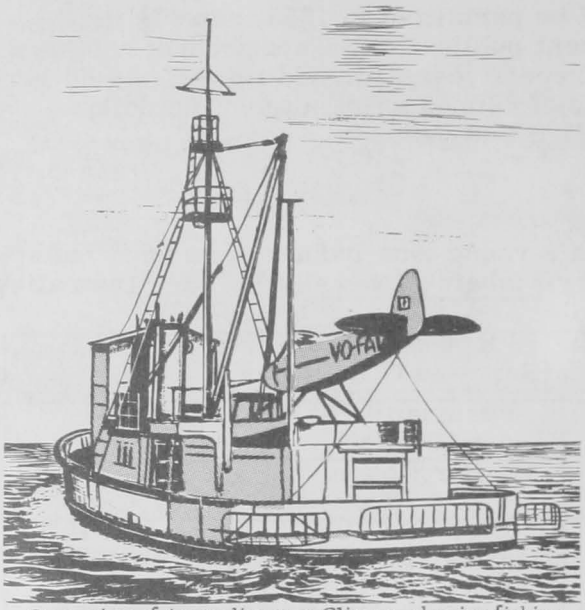
1/ New South Wales production only.

In mid-1954 the outlook for disposal of the new season's tuna catch seemed good. It was planned to offer tuna in 7-oz. cans to the United Kingdom at greatly reduced prices, compared with those obtained for $3\frac{1}{2}$-oz. cans in 1953.

But orders from the United Kingdom were not forthcoming. Relaxation of restrictions on non-Commonwealth countries by the United Kingdom, and deals involving the importation of large quantities of Canadian salmon made the market highly competitive.

Tuna in 7-oz. cans was not offered in Australia at the new low prices as Australians are not yet educated to appreciate tuna, and there was a heavy accumulation of $3\frac{1}{2}$-oz. cans from the previous season's catch. A total of 5,000 cases of 7-oz. cans of tuna in brine are now passing into local outlets. The brine pack has a pink appearance and should appeal as a quality substitute for imported salmon. But an extensive sales promotion program will probably be necessary before large quantities of the brine and oil packs can be disposed of in Australia.

The fact that stocks were in the $3\frac{1}{2}$-oz. size appears to be one of the reasons for the recent break in the industry. One should hesitate however, to criticize the earlier decision to pack tuna as a luxury snack rather than as a standard grocery line. Introduction of the 7-oz. can required expensive changes in plants. The approach to marketing this new product was necessarily tentative and only experience could point the way. Tuna catching commenced in 1949/50, and table 2 shows annual production since that year.



Stern view of Australian tuna Clipper, showing fishing racks and live-bait tanks. Spotting plane fitted with floats on top of tanks.

The potential capacity of the vessels (14 with live-bait tanks) on the New South Wales coast, provided the fish run normally, is perhaps 3 million pounds in a season. It is still a small fishery but could become Australia's largest in a short time.

All the effort put into prospecting markets for tuna bore fruit in late November and December 1954. Orders totaling 18,000 cases from the United Kingdom and the shipment of one-half million pounds of frozen fish to the United States changed the outlook. The fishermen agreed to accept 5d. (5 U. S. cents) per pound--previously they received 8d. (8 U. S. cents). All the publicity given to Australian tuna proved valuable. Inquiries were received from Egypt and Singapore for raw fish, presumably with the sale in Europe in view. At 5d. (5 U. S. cents) per lb., or an average of 6d. (6 U. S. cents) for the season, there is no doubt that the fish can be sold now and in the future.

The various markets for Australian tuna require careful study.

Canned Tuna Markets: The domestic market demands first consideration for availability of stocks and distribution of canned tuna. Australia imports £2,330,000 (US$5.1 million) worth of canned fish annually. With imaginative advertising, an increasing quantity of these imports should be displaced by tuna in its various canned forms. The aim should be to establish tuna as a standard grocery article as it is in the United States. There is considerable scope for selling it to Government Departments, especially the Navy, Army, and Air Force. If National Service trainees were given tuna in camp, they would be sure to sing its praises in their homes. But it is unlikely that the local market would absorb the total output as the industry expanded.

The United Kingdom is a potential outlet for large quantities of canned tuna but many factors are involved and the demand is likely to be variable. There is a duty of 10 percent against non-Commonwealth countries. The present foothold in this market needs to be consolidated and a continuous demand for Australian tuna worked up.

The New Zealand market is being prospected. New Zealanders eat about 6 million pounds of imported fish annually. Norwegian tuna is on sale there, and even some high-priced United States packs are sold. South Africa has plenty of fish of its own, but no tuna is packed there. It is not unlikely that Australian tuna could be placed in South Africa.

South-East Asia would bear investigation, especially the British places, but in some countries Japanese competition would make sales difficult.

Currently the possibility of exporting tuna in brine to the United States is being considered. It is dutiable at 12½ percent.

Frozen Tuna Markets: While possibilities may exist for selling frozen tuna in Europe, the United States must be treated as the only established outlet. The view is held that sale of raw fish should be regarded as a safety valve, rather than as the main outlet. It is desirable that Australia can as much as possible. Sale of raw fish to the United States has, however, the virtue of earning dollars.

The present poor market for raw tuna in the United States is due to several main causes.

Recent reports from San Francisco and New York show that there is very lively interest in Australian tuna, both in California and on the East Coast. There was a time when it was rumored that a move would be made for a duty on raw tuna but this now seems unlikely. All reports indicate that there will be a continuing demand in the United States for the raw fish.

Summarized, the outlook for Australian tuna is good. By exploiting all markets to the fullest extent, the industry can become big enough to operate economically and maintain profit margins at world price levels.

British Honduras

FISHERY PRODUCTS EXPORTS, 1954: British Honduras exports of fishery products in 1954 totaled 343,100 pounds, valued at BH$143,500 (US$100,400), compared with exports for 1953 totaling 260,200 pounds, valued at BH$102,400 (US$71,500). The United States received 62 percent of the British Honduras fish and shellfish exports in 1954 as compared with 79 percent a year earlier. Spiny lobsters comprised the bulk of these exports, and a large increase in shipments of whole spiny lobsters in 1954 accounted for the increase in total fishery products exports from British Honduras.

British Honduras Exports of Fishery Products, 1954 and 1953
(Total Exports and Exports to United States)

Product	1954			1953		
	Quantity	Value		Quantity	Value	
	1,000 Lbs.	1,000 BH$	1,000 US$	1,000 Lbs.	1,000 BH$	1,000 US$
Fresh, frozen, or live fish:						
Total exports	67.7	17.4	12.2	62.7	16.2	11.3
Exports to U. S.	51.6	14.8	10.4	52.2	13.8	9.7
Salted, dried fish, etc.:						
Total exports	75.9	17.4	12.2	28.9	5.2	3.6
Exports to U. S.	-	-	-	-	-	-
Spiny lobsters, whole:						
Total exports	97.9	31.2	21.8	14.7	3.0	2.1
Exports to U. S.	65.2	24.6	17.2	3.7	.8	.6
Spiny lobster tails:						
Total exports	94.2	75.1	52.6	143.2	75.3	52.7
Exports to U. S.	92.8	73.9	51.7	142.2	74.7	52.3
Conchs:						
Total exports	3.9	.5	.3	8.4	1.2	.8
Exports to U. S.	1.5	.3	.2	6.5	1.1	.8
Shrimp:						
Total exports	3.5	1.9	1.3	2.3	1.5	1.0
Exports to U. S.	3.5	1.9	1.3	2.3	1.5	1.0
Total all fishery products:						
Total exports	343.1	143.5	100.4	260.2	102.4	71.5
Exports to U. S.	214.6	115.5	80.8	206.9	91.9	64.4

Canada

NEWFOUNDLAND SCHOOL FOR FISHERMEN: Fishermen, young and old, in many parts of Newfoundland are going back to school--a very special one making an important contribution to the program of development in the fisheries currently taking place there, reports the February 1955 Trade News, a Canadian Government publication. With the new look in the Province's fisheries placing greater emphasis on offshore fishing involving larger boats and more powerful engines than those used in the inshore fishery, the school is filling a fundamental need in giving the fishermen groundings in navigation and Diesel engineering.

The school is tailored to meet fishermen's requirements in certain necessary respects; for example, instead of being established in one place and bringing the fishermen to it, a highly impractical course to pursue, it has been set up as a traveling school to bring its benefits to the fishermen. The school is conducted by the provincial fisheries department of the Newfoundland Government and its operations are directed by the Newfoundland Fisheries Development Authority. The Federal government is giving valuable assistance in that half the expenses involved are met by the Federal Department of Labour.

During 1954, school "terms" were held in various parts of the Province's south coast, and this year an early start has been made at Bonavista on the northeast coast, which is a focal point of the fisheries in that area and is accessible to a large number of fishermen throughout a wide section of that district.

Fishermen who have already taken the courses are putting their newly acquired knowledge to good use in various aspects of the fisheries. Many others will put to sea better informed and better equipped to cope with their old element and with new devices, when the fishery reopens in other districts in 1955.

Colombia

200-MILE TERRITORIAL-WATERS ZONE STUDIED: The Colombian Agricultural Society is studying the problem of the continental shelf and conservation of marine fisheries, according to the Colombian press (El Tiempo, April 16, 1955). Colombia may be preparing a resolution to claim the continental shelf surrounding its coast, and adherence to the tripartite claims of Chile, Peru, and Ecuador to jurisdiction over a 200-mile zone of territorial waters, according to an April 18 U. S. Embassy dispatch from Bogota.

Colombia's most prominent expert on international law spoke to the Natural Resources Committee of the Agricultural Society. This expert has been a vocal advocate of Colombian claims to its continental shelf and the 200-mile limit. He has previously recommended to the Colombia Constitutional Study Commission a constitutional amendment claiming Colombian sovereignty over the continental shelf. The Commission has accepted the recommendation. In an address to the Agricultural Society Committee he did not confine himself to the continental shelf, but called for support by the Committee of proposed action by Colombia to adhere to the "Latin American movement to protect its maritime resources."

Cuba

FROG LEG EXPORTS, 1954: Cuban exports of frog legs (mostly to the United States) in 1954 totaled 325 metric tons, valued at US$430,000, reports a May 12 U. S. Embassy dispatch from Habana (see table). This is an increase of 47 percent in quantity and 20 percent in value as compared with 1953 exports. In 1938 Cuban frog leg exports totaled only 3 metric tons, valued at US$2,000. Most of the frog leg exports are frozen.

Year	Quantity	Value	Year	Quantity	Value
	Metric Tons	US$1,000		Metric Tons	US$1,000
1954	325	430	1949	349	521
1953	220	358	1948	307	437
1952	145	210	1947	140	271
1951	134	164	1946	114	166
1950	200	255	1945	89	73

Denmark

FAROE ISLAND FISHERY LIMITS AGREEMENT REACHED WITH BRITISH: Agreement has been reached between the United Kingdom and Denmark that the fishery limits around the Faroe Islands should remain at three miles from the coastline, with adjustments to preserve spawning grounds, reports an April 29 U.S. Embassy dispatch from London. The new limits, which became effective July 1, can be regarded as a reasonable compromise between the interests of Faroese inshore fishermen and those of British deep-sea trawlers. They are to be firm for at least 12 years and will apply to the fishing vessels of all other countries.

According to the April 29 issue of The Fishing News, the British Foreign Secretary remarked: "The Danish Government proposed an extension of fishery limits around the Faroe Islands. During the negotiations this proposal has been modified so that the new limits can now be regarded as a balance between the fishing interests of the two parties. The Danish Government have given an assurance that the new limits will be applied to the fishing vessels of all other countries. The limits will be firm for at least 12 years; this period of stability will be valuable to our fishing industry.

"The Secretary for Scotland and the Minister of Agriculture, Fisheries and Food, have kept the organizations representing our trawling industry informed of these negotiations.

"We welcome these Agreements, which show that problems of fishing grounds can be settled by negotiation without economic dislocation and bitterness. I am confident that we have arrived at a reasonable compromise between the interests of Faroese inshore fishermen and those of British deep-sea trawlers."

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FISH MEAL AND OIL INDUSTRY EXPANDS: Production of herring fish meal and oil in Denmark is going through a phase of rapid development, reports the March 25 issue of The Fishing News, a British fishery periodical. The great richness of herring on Bloden Grund is in itself a marvel. England, Germany, Holland, and Belgium all get their supplies there. In Denmark it has caused a mighty rise in this trade.

The main centers of production in Denmark are concentrated in the harbors of Skagen, Frederikshaven, Hirtshals, and Esbjerg, where byproduct plants are being extended and new plants built.

In Hirtshals there are two modern plants. Esbjerg has two big plants. To these will be added two new ones. These will be opened with a capacity of 250-300 metric tons of raw material per day. The machinery will be delivered from Norway and West Germany and will be of the most modern type. At Thyboron on the west coast of Jutland another plant is planned for immediate building. This plant will be started on a cooperative basis. These expansions will allow Denmark, before long, to double its exports of herring oil and fish meal.

Besides these stationary plants, the building of a big modern trawler is planned, which will be constructed as a fish-meal and herring-oil factoryship and a salting-house at sea. Moreover, a freezing machine will be installed. It will also be able to fulfill all the functions of a modern trawler.

As a herring-oil plant it is an obvious advantage that this floating factory can stay on the fishing grounds. It is both an experiment and innovation made for the Danish fishing industry. Many look forward with great interest to the result.

The factories have already received in advance considerable export orders besides those for the home market.

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BYPRODUCTS IMPORTS AND EXPORTS, 1953-54: Denmark's byproducts imports amounted to 34,422 metric tons in 1954 as compared with 22,378 tons in 1953, according to an April 15 U. S. Embassy dispatch from Copenhagen. Byproducts exports amounted to 35,303 tons in 1954 as compared with 20,153 tons the previous year.

Danish Imports of Marine Oils and Meals, 1953-54

Product	1954			1953		
	Quantity	Value		Quantity	Value	
	Metric Tons	1,000 Kroner	1,000 US$	Metric Tons	1,000 Kroner	1,000 US$
Fish-liver oil	2,798	5,382	779	2,597	4,503	652
Herring oil, etc.	1,622	2,527	366	422	611	88
Whale and seal blubber	-	-	-	1,128	1,142	165
Whale oil	13,581	18,542	2,685	10,468	13,926	2,016
Seal oil	1,882	2,798	405	18	24	3
Herring meal	7,475	8,265	1,197	4,763	4,902	710
Other fish meal	7,064	7,558	1,094	2,982	2,870	416
Total	34,422	45,072	6,526	22,378	27,528	4,050

Danish Exports of Marine Oils and Meals, 1953-54

Product	1954			1953		
	Quantity	Value		Quantity	Value	
	Metric Tons	1,000 Kroner	1,000 US$	Metric Tons	1,000 Kroner	1,000 US$
Fish-liver oil	418	673	97	715	1,050	152
Herring oil, etc.	9,526	12,520	1,813	6,727	8,511	1,232
Whale and seal blubber	-	-	-	12	12	2
Whale oil	86	122	18	312	333	48
Seal oil	153	267	39	241	380	55
Herring meal	23,453	25,677	3,718	10,296	11,642	1,686
Other fish meal	1,667	1,597	231	1,850	1,860	269
Total	35,303	40,856	5,916	20,153	23,788	3,444

Ecuador

LATIN AMERICAN FISHERIES COUNCIL RATIFIED: Ecuador by publication of a legislative decree in the May 5 Registro Oficial ratified the Latin American Fisheries Council which was approved at the FAO Conference at Rome in December 1953, reports a U. S. Embassy dispatch (June 3) from Quito.

Formosa

FISHERY PRODUCTS EXPORTS, 1954: Formosan exports of fishery products in 1954 totaled 16,466 metric tons, valued at NT$53 million (US$3.4 million), according to an April 22 U. S. Foreign Operations Administration dispatch from Taipei.

Iceland

TRANSPORTATION WORKERS' WAGE INCREASE WILL AFFECT FISH EXPORTS: Ten percent wage increases and a State-subsidized unemployment fund have been granted to 7,000 transportation strikers who returned to work in Reykjavik and two other main Icelandic towns late in April after a 42-day stoppage.

The wage rise will add to the financial burdens of Iceland's fish export industry. Higher taxes are expected if other wage demands are granted.

Fishing is reported to be good. Winter fishing was continued by hundreds of fishing boats whose small-town labor unions refused to sympathize with the strike, which tied up 10 Reykjavik trawlers, reports the May 6 issue of The Fishing News, a British fishery paper.

Iran

FISHERY PRODUCTS PRODUCTION AND CONSUMPTION, 1954: Iranian production of fishery products in the year ending August 22, 1954, amounted to 30,000 metric tons, according to a November 2, 1954, U. S. Embassy dispatch from Tehran. Iranian fishery products production in the year ending August 22, 1953, totaled 27,000 metric tons.

Domestic consumption for the year ending August 22, 1955, was estimated at 20,000 metric tons, and exports were estimated at 8,000 tons. Consumption for the previous 12 months was estimated at 18,000 tons. (Iranian statistics are kept on the basis of the marketing year, August 23 to August 22.)

Irish Free State

NEW SCALLOP DREDGE: A startling new method of scallop fishing has been developed through experiments carried out with a new type of gear used in Bantry Bay, Ireland, by a team of fishermen directed by the Irish Department of Fisheries and the Harbor Master at Bantry.

The new dredge, which is entirely different from that now being used, resembles a miniature plough and is fitted with a 5-foot adjustable swivel-toothed dredge and bar. A hood keeps it level in the water. Adjustable skids to either side make it far easier to pull than the present type of dredge.

The results of the dredging, done from a launch when an old and a new dredge were tried out simultaneously, revealed that the new method secured from 5 to 8 times more scallops than the old, according to the April 22 issue of The Fishing News, a British trade paper.

These results are considered to be little short of revolutionary where scallop fishing is concerned, and will affect hundreds of inshore fishermen along the southwest coast of Ireland who live by dredging scallops during the winter months from November to March. During the season now ended, scallops brought an average of 35s. per hundredweight (5 U. S. cents per pound).

The main centers for the industry are Bantry Bay and Kenmare Bay, but with the new dredging apparatus now available, the industry may extend along the coast on either side, where it has not been an economic proposition up to now with the old type of dredge.

Israel

FISHERIES TO BE DEVELOPED: Shrimp: A program for the development of a shrimp industry in Israel has been under way by the Industrial and Agricultural Division, an April 22 U. S. Foreign Operations Administration dispatch from Tel Aviv states. This would be a new industry to Israel. A survey of Mediterranean waters near Israel's shores revealed the availability of sizable quantities of excellent quality shrimp. Sufficient initial equipment is available to establish the enterprise.

Shrimp is not consumed in Israel in quantity due to religious restrictions, but there is a good demand in the United States; and the program being developed is slanted toward the United States market. It has been established that as much as 250 metric tons can be obtained annually from Israeli waters, with a total value of about US$250,000. Arrangements have been made for quick freezing shrimp samples in a small laboratory freezer.

Sea Fisheries: A tentative program of operations for the next two years in Israeli sea fisheries has been drawn up. Progress was made during February in the location of large supplies of species of "bouri," and a technique has been developed for ready identification of all major species of bouri present in Israel's Mediterranean waters.

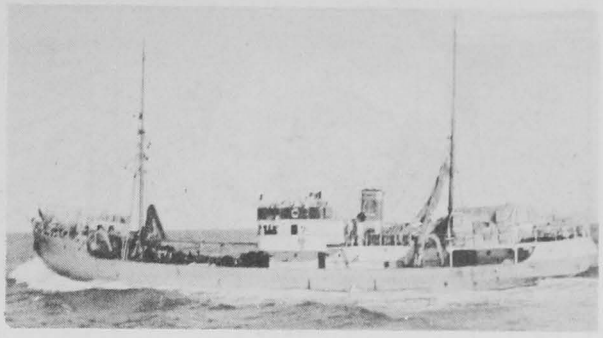
Preliminary arrangments have been made for experiments on sponge culture to start within a short time. Plans have been drawn as well for a program of exploratory fishing in waters over 200 fathoms deep. The possibility of utilizing the seasonal tuna run and the more steady shark fishery resource of Eilat are being considered.

Italy

FISHERIES PRODUCTION, 1954: Italian marine fisheries production in 1954 totaled 192,000 metric tons as compared with 186,000 tons in 1953, according to the Quarterly Statistical Bulletin (Vol. VIII, No. 1, First Quarter 1955) published by the United States Operation Mission to Italy (see table). The 1954 production was the highest in the postwar years. Sardines and mackerels were the principal species landed by the Italian fisheries, and the heaviest landings were made in the midsummer months.

Italian Marine Fisheries Production, 1950-1954

Species	1954	1953	1952	1951	1950
	(1,000 Metric Tons)				
Sardines and mackerels	68	67	79	61	61
Other fish	90	91	83	76	76
Mollusks	28	22	21	21	21
Crustaceans	6	6	5	6	6
Total	192	186	188	164	164



Italian trawler

Japan

SALMON FLEETS SAIL FOR NORTH PACIFIC: A total of 12 Japanese salmon expeditions were due to sail for the North Pacific on May 2, according to a U. S. Embassy dispatch (May 4) from Tokyo. Originally 11 fleets were planned for this year's operations but a twelfth mothership was authorized without increasing the number of fishing boats--its 20 boats were drawn from other fleets. The total number of survey boats is increased from 50 to 56.

Japanese North Pacific Salmon Fleets, 1955

Mothership		Fishing Vessels	Survey Vessels
Name	Gross Tonnage	No.	No.
Miyajima Maru 1/	8,964	30	6
Itsukushima Maru 2/	5,700	23	4
Koyo Maru 2/	7,400	23	6
Einin Maru 1/	7,456	20	6
Kyoho Maru 1/	7,050	25	4
Meisei Maru 1/	5,618	20	6
Kizan Maru 3/	7,933	31	4
Terutama Maru 3/	5,643	24	4
Kyokusei Maru 4/	4,804	23	4
Kyokko Maru 3/	6,979	25	4
Choko Maru 3/	5,598	20	4
Nichian Maru 3/	5,277	20	4
12 Total		284	56

1/ Existing mothership.
2/ Newly-built mothership.
3/ Converted from cargo ship.
4/ Converted from whaling ship Baikal Maru.

The final makeup of the fleets which will fish for salmon in the Sea of Okhotsk has not been officially announced. These fleets were scheduled to sail about June 1.

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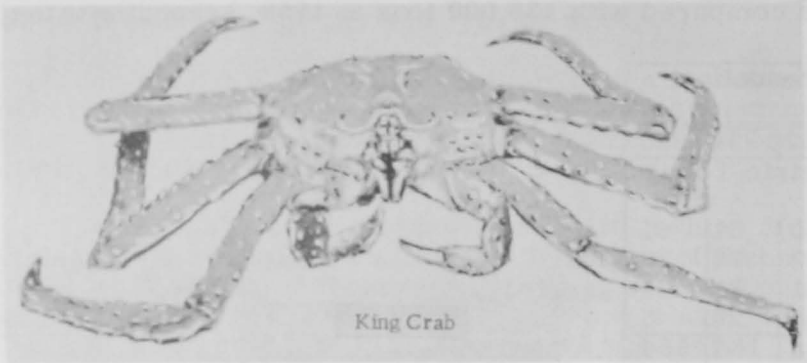
NORTH PACIFIC FACTORYSHIP CRAB FISHING, 1955: Japanese motherships especially fitted for canning crabs departed for their prescribed fishing grounds, reports an April 15 U. S. Embassy dispatch from Tokyo.

The Tokei Maru, converted from a World War I Hog Island vessel, is proceeding to the Eastern Bering Sea (Bristol Bay) where it will fish until its limit of 57,000 cases of king crab is reached. This will be the third expedition of the Tokei Maru to Bristol Bay since the Peace Treaty. The fishery will be under a joint management of three Japanese companies. Two catcher boats of about 70 tons and 6 utility boats of about 10 tons (to be carried on board) will join the expedition.



King Crab

The Yoko Maru, a newly converted Japanese cargo ship, is proceeding to the Sea of Okhotsk, where it will fish off the west coast of Kamchatka. Its limit is stated to be 60,000 cases of king crab. This will be not only the first trip of the Yoko Maru in her present role but also the first time a Japanese vessel has entered the Sea of Okhotsk since World War II. This fleet, under the joint management of two Japanese companies, will include besides the factoryship 3 catcher boats of about 70 tons and 9 utility boats of about 10 tons.

Another fleet, with the factoryship Kakuyo Maru under the joint management of two other Japanese companies, consists of 3 catcher boats of about 70 tons and 8 utility boats of about 10 tons (to be carried on board). This fleet will also operate in the Eastern Bering Sea.

Each mothership is the base of operations for the catcher, trawlers, and for the smaller craft (carried on davits) used to handle the tangle nets. Besides the crew of the mothership and 50-60 fishermen to man the small boats carried, each ship houses about 240 cannery hands who clean, cook, and can the crab. On the average, 22 king crabs will supply meat for one case of 48 $6\frac{1}{2}$-oz. cans.

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NORTH PACIFIC 1955 SALMON INVESTIGATIONS: The Japanese 1955 North Pacific salmon and trout investigations program to be conducted by the Japanese Fisheries Agency, as reported in an April 14 U. S. Embassy dispatch from Tokyo, is as follows:

Object: (a) Exchange and migration of the salmon and trout population; (b) Ecology of salmon and trout during living period at sea; (c) Ecology and composition of fish schools which are objects of catch.

Research Vessels: Two vessels of about 150 tons and 350 hp. will be chartered.

Investigation Schedule: May 1--departure from Hakodate and commencement of investigations; May 16--stop at Amchitka Island; June 20 stop at Dutch Harbor; August 20--return to Hakodate.

As the research vessel to be used had not yet been determined, the above program is subject to some changes.

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FISHERY PRODUCTS EXPORTS TO UNITED STATES, JANUARY-MARCH 1955: Japanese exports of the principal fishery products and byproducts to the United States and its territories and possessions in the first quarter of 1955 totaled about 43 million pounds, valued at US$12.0 million as compared with about 39 million pounds, valued at US$11.8 million (see table) in the same period a year earlier, reports a May 12 U.S. Embassy dispatch from Tokyo. Frozen tuna comprised the bulk of the total and in January-March 1955 increased 52 percent above the similar period in 1954. Fish and marine oils and pearl exports were up from a year earlier, while exports of canned tuna and crab meat and other canned fish were down.

Japanese Fishery Products Exports to United States, January-March 1954

Products	Jan.-Mar. 1955		Jan.-Mar. 1954	
	Qty.	Value	Qty.	Value
	1,000 Lbs.	1,000 US$	1,000 Lbs.	1,000 US$
Tuna, fresh or frozen . .	32,450	5,278	21,022	4,500
Tuna, canned	3,193	1,499	5,559	2,918
Crab meat, canned . . .	446	500	242	256
Other canned fish	2,905	1,785	11,690	3,288
Fish & marine oils . . .	4,155	1,549	42	12
Pearls, natural & cultured.	-	1,423	-	783

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FISHERY PRODUCTS EXPORTS, 1954: Total Japanese exports of fishery products (not including certain marine products, such as whale oil, agar-agar, etc.) in 1954 amounted to 141,000 metric tons, valued at US$74.2 million, reports a U.S. Embassy dispatch (March 23) from Tokyo. This is an increase of 16 percent in quantity and 22 percent in value as compared with 1953 exports of 121,000 tons, valued at US$61 million. In 1952 exports of 100,000 metric tons were valued at US$46 million.

Japanese Fishery and Marine Products Exports, 1954 (Total Exports and Exports to the United States)

Product	Total Exports				Exports to the United States		
	1953	1954			1954		
	Quantity	Quantity	Value		Quantity	Value	
	Metric Tons	Metric Tons	Millions of Yen	Millions of US$	Metric Tons	Millions of Yen	Millions of US$
FISH PRODUCTS							
Oceanic bonito, frozen	541	1,979	211	0.6	1,969	209	0.6
Tuna, frozen	40,218	51,027	7,544	21.0	46,862	6,971	19.4
Salmon, canned	1,801	7,915	3,376	9.4	1/	1/	1/
Tuna, canned	11,648	8,197	3,289	9.1	6,677	2,750	7.6
Oceanic bonito, canned	4,204	8,068	2,489	6.9	6,770	2,125	5.9
Sardine, canned	13,592	14,491	1,871	5.2	2,079	255	0.7
Crab meat, canned	1,837	2,949	2,095	5.8	1,119	894	2.5
Other fish	1/	1/	5,850	16.2	1/	532	1.5
Total	1/	1/	26,725	74.2	1/	13,736	38.2
MARINE PRODUCTS							
Whale oil	24,000	33,072	2,332	6.5	1/	1/	1/
Pearls	7	12	2,663	7.4	5	1,452	4.0
Fish & fish-liver oil	7,405	9,463	2,730	7.6	4,546	1,133	3.1
Agar-agar	999	684	964	2.7	136	197	0.5

1/Not available.

Japanese exports of agar-agar in 1954 totaled 684 tons (valued at US$2.7 million) as compared with the 1953 total of 999 tons (valued at US$2.8 million) and 722 tons (valued at US$1.6 million) in 1952.

The United States was the principal receiver of Japanese exports of fishery products in 1952-54 on the basis of quantity and value. In 1954 shipments to the United States totaled 66,000 metric tons (valued at US$38 million); and in 1952, 37,000 tons (valued at US$22 million).

Exports of marine products (whale oil, fish oil, pearl shell, pearls, agar-agar, etc.) in 1954 reached 8.7 billion yen (US$24.2 million) in value with 32 percent going to the United States, a March 25 U. S. Embassy dispatch from Tokyo reports.

The United Kingdom received the largest part of the Japanese exports of agar-agar in 1954, followed by the United States. In 1953 the United States was the principal receiver, followed by Singapore, United Kingdom, and West Germany. Singapore received the largest share of Japanese agar-agar in 1952, followed by United Kingdom, United States, and France in that order.

The increase in Japan's exports in 1954 appeared to have stemmed in part from an excess of production over domestic demand, but mostly was due to special export promotion measures sponsored by the Japanese Government. The terms of trade were undoubtedly less favorable because of the subsidies granted for certain exports, but they made it possible, at least, to narrow the gap between the country's export and imports.

By a system of linking imports of sugar, which sold for a premium on the domestic market, with the export of products which could be sold on the world market only at a loss, it was possible to use the excess profit made on the one to cover the deficit incurred on the other. Among the products which were subsidized in this way were exports of agar-agar, canned sardines, whale oil, and vitamin oil.

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ANTARTIC WHALING OPERATIONS, 1955: The Japanese 1955 Antarctic whaling season for baleen whales commenced January 7 and closed at midnight March 19 upon the attainment of the international total of 15,500 blue-whale units,[1/] states a U. S. Embassy dispatch (April 13) from Tokyo. The three Japanese whaling fleets took 2,772 blue-whale units as compared to a target of 2,150 blue-whale units, and an actual catch of 1,896 blue-whale units for the two fleets which operated in 1954.

Japanese Antarctic Whaling Operations, 1955

Catch		Products Produced	
Species:	No.	Product:	Metric Tons
Baleen whales:		Sperm oil	8,822
Blue	590	Baleen whale oil	53,555
Fin	4,220	Frozen meat	29,494
Humpback	179	Salted meat	10,745
Total baleen whales	4,989 1/	Liver oil	70
		Other	187
Sperm whales	967	Total	102,873

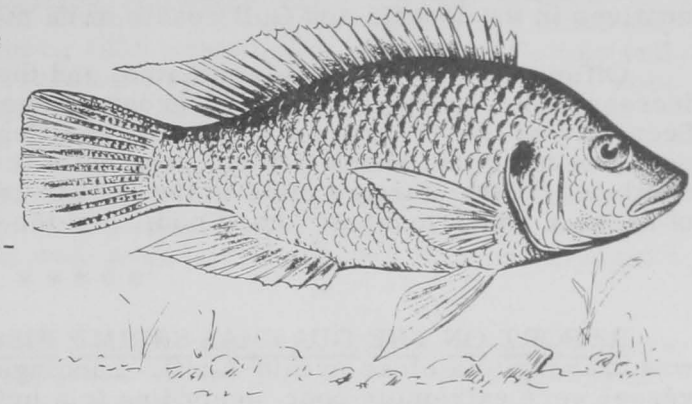
1/ Equals 2,771.6 blue-whale units.

The oil production increased 21 percent over 1954 and is valued at about US$10 million at current market rates.

1/ One blue-whale unit equals 2 fin whales, or 2½ humback whales, or 6 sei whales.

Republic of Korea

TILAPIA RECEIVED FROM THAILAND: A shipment of live tilapia recently arrived in Korea by air from Thailand through arrangements made by the United Nations Korean Reconstruction Agency, according to a May 10 release from that Agency. The fish are a gift of the Government of Thailand and, after being acclimated in a specially-designed aquarium and hatchery in Chinhae, will be let out into shallow ponds and rice paddies.



Tilapia (Tilapia mossambica)

The shipment consisted of 15 tanks containing 470 live fish. The consignment comprised 10 mother fish, each carrying approximately 200-400 eggs; 200 fry and 260 medium-sized fish of both sexes. It is estimated that the total yield after the eggs are hatched will be at least 3,000. A Thailand Department of Fisheries official planned to spend two weeks at the Chinhae Hatcheries so that he can instruct the Korean staff in the correct method of selecting and handling the fish for breeding purposes.

Tilapia mossambica have their original home in the tropical waters of South Africa where they supply an enormous quantity of food for the inhabitants. About 20 years ago a few of them were introduced into Indonesia where they grow so fast and reproduce so quickly that their culture has received special attention by the Indonesian Government authorities. After the war, news of the excellent qualities of tilapia spread through Southeast Asia and they have been transported to many other countries, particularly Thailand, where they have provided a rich new source of food for the people.

Tilapia grow well in shallow ponds where the water temperature remains warm. The fish reach maturity at four months and reproduce the year round at about 2-3 months' intervals. The total number of fish produced under good conditions by one pair may be as many as 10,000.

The present shipment is an experimental one since the climate in Korea is not as consistently warm as in most of the countries where the fish have thrived. It is hoped, however, that if the fish can be maintained in a warm aquarium during the extreme winter months they should be able to grow and breed fairly well in open ponds during the summer. The success of the experiment would contribute greatly to the food sources of the Korean people.

Mexico

FISHERIES TRENDS, APRIL 1955: The fishing industry apparently is not participating in the Mexican general economic recovery, but the fundamental causes are difficult to determine from the many claims and counterclaims, a May 11 U. S. Embassy dispatch from Mexico points out. The shrimp industry claims that production in the latest season was 40 percent under that of the previous season. Some sources blamed speculative activities of United States purchasers which resulted in unprofitable prices, while others claimed that the shrimp beds were being exhausted by improper exploitation. For example, a delegate of the Fishing Chamber in Mazatlan

claims that the shrimp which seek refuge in estuaries to reproduce are trapped there when they attempt to return to the sea.

While the Pacific Coast cooperatives argued among themselves about delimitations of fishing areas, the late Secretary of the Navy denounced two specific cooperatives as monopolies of wealthy men and added that all the other so-called cooperatives in the Pacific and Gulf coasts were no different.

Official prices are openly violated, and the press particularly attacked the sharp increases during Easter week. A group of Pacific Coast fishermen petitioned the Secretary of the Treasury for relief from allegedly high taxes on sharks and byproducts, claiming that shark fishing, once quite important, has now virtually been discontinued. Other factors cited in the decline of this industry were the discontinuance of sales of shark meat as "dried cod," and the competition from Japanese fishermen.

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REPORT ON THE GUAYMAS SHRIMP FISHERY: The Guaymas shrimp season was drawing to a close in mid-April. Landings were very light and catches per vessel were extremely poor, according to a brief report of a trip to that area by the Service's San Pedro (Calif.) Local Representative. Out of 8 established shrimp packing and freezing plants, only 2 were operating part time. The average catch of the shrimp draggers per trip of about 17 days ranged between 2,000-3,000 pounds. Guaymas ex-vessel prices for heads-off shrimp averaged about 33 U. S. cents per pound for white, and much less for the more prevalent brown shrimp.

Guaymas fishermen behead the shrimp on the grounds, and it was noted that they were well iced when unloaded. However, the composition of the catch on a vessel unloading on April 12 was less than 10 percent of good-sized white shrimp, with a large percentage of small brown shrimp. No mechanical aids are used in unloading shrimp boats. In the hold the shrimp are shoveled into wicker baskets holding about 25 pounds, which are then passed bucket-brigade style from the hold of the vessel to a truck backed up on the dock. About 10 men are used in this unloading operation. No unloading winches were observed on the docks.

In one packing and freezing plant about 80 women are employed to sort and pack the heads-off shrimp according to size. These shrimp are layer-packed in aluminum pans containing 5 pounds of shrimp to which is added about 3 pounds of water to form a glaze. The filled trays are then put in a sharp freezer with a temperature of about -10° F. where they are frozen for approximately 8 hours. The frozen blocks of shrimp are then removed from the trays and packed in waxed cartons labeled according to species and the size of individual shrimp blocks.

Most of the Guaymas frozen shrimp are shipped in refrigerator trucks destined either for Southern California or Tucson, Ariz. Tucson is now an important assembly point for frozen shrimp to be packed in rail carload lots for shipment to Chicago.

According to a leading Guaymas shrimp producer, the Mexican shrimp industry in the Gulf of Lower California appears to be undergoing advanced stages of depletion, especially for the more desirable large white shrimp. For some unknown reason considerable quantities of brown shrimp have moved in on the grounds formerly occupied by the white shrimp during the past year or two. Brown shrimp had not been observed before in these areas and there seems to be very little known as to the migration of brown shrimp.

The shrimp industry at Guaymas now presents a rather pitiful picture. Most of the plants are shut down, and the fleet of shrimp trawlers, which at the height of the industry numbered approximately 170 vessels, are now scattered in search of shrimp as

far south as Manzanillo. It is understood that Mazatlan and Topolobampo Bay have replaced Guaymas as the shrimp capital of Sonora, Mexico.

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MERIDA FISHERIES TRENDS, JANUARY-MARCH 1955: Shrimp: Exports of frozen shrimp from the Merida district of Mexico, through the ports of Ciudad del Carmen and Campeche, in January-March 1955 totaled about 1,313 metric tons (all to the United States), reports a U. S. consular dispatch (May 9) from Merida. This compares with 1,925 tons in the last quarter of 1954 and 1,086 tons in January-March 1954.

Prices for 15-20 count headless shrimp f.o.b. Brownsville, Tex., for the first 3 months of 1955 were 55, 59, and 58 cents a pound, respectively. For October, November, and December 1954 shrimp was quoted at 49, 49, and 52 cents a pound in the same city.

Although the market at the end of the quarter was described as sluggish--normal for just after Lent--conditions were reported to have improved considerably. The outlook is favorable for those whose business is geared to prevailing food prices.

Shark Fins: Merida exports of shark fins, as usual all to the United States, increased to 1.7 metric tons, 140 percent over the 0.7 metric tons leaving the area in the final three months of 1954. The increase over the preceding quarter is attributed to better fishing weather.

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MORE FREEZING PLANTS TO BE BUILT: The Mexican Navy Department is well satisfied with results of the Veracruz fish-freezing plant and will construct three additional plants in Ciudad del Carmen, Campeche; Mazatlan, Sinaloa; and Guaymas, Sonora; according to recent Mexican press reports. Still another plant may be set up in Tampico or Tuxpan, according to the Navy Secretary. The Veracruz plant has a capacity for 20,000 metric tons of fish daily, but capacities of the projected plants has not yet been announced.

A freezing plant for meat, fish, vegetables, and fruits is being constructed by the Federal District authorities in the suburbs of Mexico City, and it is scheduled for inauguration in July of this year.

Inasmuch as freezing-plant capacity in Mexico has been very limited up to the present, and the need of such plants is apparently well recognized, the above-mentioned plants probably herald the beginning of an important new industry in which Government agencies will assume a leading role, a May 2 U. S. Embassy dispatch from Mexico City points out.

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JAPANESE MAY TRADE 150 FISHING VESSELS: An agreement is under discussion between Mexico and Japan whereby Japan would supply Mexico 150 fishing vessels in return for Mexican cotton and sugar, a May 15 U. S. Embassy dispatch from Mexico City reports.

Netherlands

FISH-OIL IMPORTS AND EXPORTS, 1954: Netherlands imports of fish oils in 1954 amounted to 51,258 metric tons as compared with 41,345 tons in 1953, according to an April 20 U. S. Embassy dispatch from The Hague. Imports of fish oils from the United States in 1954 totaled 9,734 metric tons as against 5,143 tons in 1953.

Netherlands exports of fish oils in 1954 amounted to 3,115 tons in 1954 as compared with a total of 8,500 tons in 1953. No fish oils were exported to the United States.

Norway

FISHERIES CATCH GOAL SET AT 2 MILLION TONS: Norwegian fisheries should be able to reach an annual yield of 2 million metric tons in the course of a few years, declared the Permanent Under-Secretary to the Norwegian Ministry of Fisheries. He pointed out that in 1954 Norway's total fish yield was almost 1.9 million tons, an output that broke all records. To insure an annual increased yield, bigger vessels and more deep-sea fishing boats must be built, reports the March 18 issue of The Fishing News, a British fishery magazine.

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LOFOTEN 1955 COD CATCH POOR: The annual cod fisheries in the Lofoten waters of North Norway turned out to be very disappointing again in 1955, reports a May 5 bulletin from the Norwegian Information Service. As of the official closing date, April 23, when government inspectors left their posts, the total catch was 43,580 metric tons, about the same as last year's record low. Estimated first-hand value of the 1955 catch was Kr43.1 million (US$6 million). Average earnings per fisherman, however, were well above last year because only about 14,000 participated, as against 20,000 in the 1954 season, and also because buyers paid somewhat higher prices.

Despite the poor Lofoten result, Norway's total cod catch is well ahead of 1954, amounting to about 78,000 tons, as against 62,000 tons at the same time in 1954, and 65,000 in 1953. In the postwar seasons preceding 1953, mid-April totals varied between some 202,000 tons in 1947 and about 90,000 tons in 1949.

During the Lofoten cod fisheries, nylon nets firmly established their position as a superior gear, yielding from 5 to 9 times as much fish as nets made of cotton or other materials. Nylon also proved very effective in jigs and hand lines. In the opinion of the Chairman of the Norwegian Parliament's Fisheries Committee the nylon net is the gear of the future.

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Disposition of Norwegian Winter Herring Catch, 1955 and 1954

Disposition	1955	1954
	(Metric Tons)	
Exports as fresh or frozen	117,860	84,082
Cured	110,998	105,007
Canned	9,866	11,439
For meal and oil	703,676	883,884
Bait	3,699	3,258
Domestic Consumption	5,168	4,560
Total catch	950,267	1,092,230

WINTER HERRING CATCH AND DISPOSITION, 1955: The Norwegian 1955 winter herring fishery began on January 12 and ended April 6. The weather conditions were periodically stormy. The fleet is, however, efficient and the system of distribution well established, and the fishermen landed 950,267 metric tons, only 141,963 tons less than in the record season of 1954. The catch was

composed of 738,891 tons of sloe herring and 211,376 tons of spring herring (spawners and spents). The ex-vessel value amounted to 194.9 million kroner (US$27.3 million) against 201 million kroner (US$28.1 million) last year.

The disposition of the Norwegian winter herring catch for 1954 and 1955 is shown in the table.

Pakistan

FISHERY HARBOR CONSTRUCTION BEGUN: Work started in April on a fishing harbor at Karachi designed to make better quality fish available to the Pakistani people at cheaper prices, provide a higher standard of living to the fishermen, and increase the foreign exchange earnings of the country. The harbor will be completed in 1957 and will cost Rs 6-7 million (US$2 million); the project should improve the health of the masses by providing them with a more abundant cheap protein food, states an April 30 Foreign Operations Administration dispatch from Karachi.

The fishing harbor aims at constructing modern refrigeration and storage facilities, thus enabling more fish to reach the interior of Pakistan.

It plans the use of mechanized craft capable of fishing a wider range of the Arabian Sea where the potential catch is greater; and by providing service facilities for such mechanized craft.

With the increase of fish production and exports, an appreciable amount of foreign exchange should be added every year to the country's exchequer.

The Pakistan Government has earmarked Rs 4.3 million (US$1.3 million) for the project. The Foreign Operations Administration of the United States has agreed to provide Rs 2.4 million (US$0.7 million) in technical advice, construction materials, and plant and equipment not readily available in Pakistan.

When completed the harbor will consist of approximately 46 acres of land and 17 acres of water area.

The project is expected to be self-sustaining when completed. The proceeds on all auctioned fish--at auctioneer fees of five percent of the proceeds--are estimated to average Rs 720,000 (US$220,000) annually over a 30-year period. Annual depreciation, maintenance, and harbor management charges are estimated at Rs 327,000 (US$98,000) leaving an average annual return of Rs 393,000 (US$118,000) or 5.9 percent of the invested capital.

This project has been among the top priority development schemes of the Government for several years and its immediate implementation has been strongly urged by all who are conversant with the fishing industry in the Karachi area.

The FOA share of the financial plan comprises one fisheries advisor; one contract harbor engineer; all items of construction material and equipment that are unavailable from the local market or available only in quantities needed to support the present economy and its planned expansion.

Work items comprise dredging of the entrance and turning basin, reclamation of low lands with the dredged material, construction of a protective dike (bund), a longitudinal wharf, a jetty, two floating slips, a landing beach, a fish market, a fisheries laboratory, a boat repair shop, a fisherman's cooperative store building, net-drying racks, and the necessary gas supply, electric supply, water supply, sewage and paved road systems to serve the project.

An indication of the interest the FOA is displaying in the fisheries development plans of the country is the gift of a US$100,000 fishing boat Macchera to the Government of Pakistan recently. The 67-foot scientific boat is expected to play an important role in developing Karachi as one of the great fishing ports of Asia.

Peru

U. S. PROPOSAL ON 200-MILE TERRITORIAL-WATERS ZONE REJECTED: The Peruvian Foreign Office on April 13, 1955, delivered a reply to the United States note reserving its rights under the recent actions of the Peruvian Government taken pursuant to the Tri-partite Declaration of Santiago relative to the claim to jurisdiction over 200 miles of water seaward from the Peruvian coast. The Peruvian note rejected the United States position but it is understood that Peru will give consideration to a United States proposal to discuss the matter of conservation measures which are generally considered to be necessary, an April 26 U. S. Embassy dispatch from Lima states.

Portugal

PROCESS FOR BONELESS AND SKINLESS SARDINES: The boning and skinning of sardines in Portugal is accomplished entirely by hand, reports an April 12 U. S. Embassy dispatch from Lisbon. The process for preparing boneless and skinless sardines (a variety produced primarily for the United States market) is described briefly as follows:

When the fish reach the cannery they are beheaded, cleaned, and immersed in salt brine. The period of immersion varies with the size of the fish and the taste effect desired. After removal from the brine, the tail and vertebra are removed, usually by female workers, with the aid of a small knife. The fish are then placed in wire racks and steam cooked for 15 or 20 minutes. They then go to the can fillers who cut the sardines to a uniform size with a pair of scissors and place them in the can. The skin slips off easily during this operation. The cans are then filled with olive oil or tomato sauce, lidded, sealed, sterilized, checked, and boxed.

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FISHERIES TRENDS, DECEMBER 1954: Sardine Fishing: Portuguese sardine fishing in December 1954 continued to increase at the eight main fishing centers, reports the March Conservas de Piexe. Sardine production in December 1954 totaled 23,300 metric tons, valued at 42.8 million escudos (US$1.5 million), as compared with only 10,987 tons, valued at 23.1 million escudos (US$0.8 million) in December 1953.

The leading sardine fishing centers in December were Matosinhos, Peniche, Setubal, and Lisbon.

Other Fishing: Landings of other species at Portuguese ports in December totaled 5,858 metric tons, valued at 5.4 million escudos (US$0.2 million). Chinchard was the leading species landed (5,531 tons), followed by mackerel (254 tons), and tuna and tunalike species (51 tons).

Canned Fish Exports: Portuguese canned fish exports in December 1954 totaled 7,655 metric tons, valued at 114.2 million escudos (US$3.9 million), as compared

with 5,831 tons, valued at 88.3 million escudos (US$3.1 million) in the same month a year earlier, according to the March 1955 Conservas de Piexe (see table). Canned sardines in oil was again the leading item exported from Portugal in December, totaling 5,686 tons, valued at 97.0 million escudos (US$3.4 million).

Portuguese Canned Fish Exports, December 1954

Species	Dec. 1954		Nov. 1954	
	Metric Tons	1,000 US$	Metric Tons	1,000 US$
Sardines in oil or sauce	6,586	3,351	5,850	2,962
Sardinelike fish in oil or sauce	585	366	460	268
Sardines & sardinelike fish in brine	182	36	41	17
Tuna & tunalike fish in oil	175	131	140	108
Tuna & tunalike fish in brine	28	7	53	31
Mackerel in oil	99	56	122	72
Other fish	-	-	36	19
Total	7,655	3,947	6,702	3,477

Great Britain was the leading receiver of Portuguese canned fish in December with 21.9 million escudos or US$0.8 million (mostly sardines), followed by Germany with 14.9 million escudos or US$0.5 million (mostly sardines), and Italy with 11.6 million escudos or US$0.4 million (sardines and tuna). During December the United States received Portuguese canned fish valued at 1.4 million escudos or US$483,000 (principally sardines in oil or sauce 245 metric tons, and anchovies 188 tons).

Spain

VIGO FISHERIES TRENDS, MARCH 1955: Fish Canning: March is usually an off month in fish canning for the Vigo district and operations were virtually limited to the canning of a few low-priced varieties for the domestic markets and to the manufacture of containers in preparation for the sardine and albacore tuna runs during the coming months.

The recent 10-percent reduction by the Spanish Ministry of Commerce in the minimum export price of canned fish destined to the Western Hemisphere and reports that United States purchases of Japanese tuna during 1955 will be greatly reduced have had a salutary effect among Spanish canners, who hope to benefit by larger orders from the United States market. This possibility seems to be supported by the large number of requests for quotations being received. Canners expect good business if the coming albacore tuna season is at least as good as last year.

The Fish Canners Association of Galicia, whose membership comprises about 80 percent of the Spanish fish packers, has finally yielded to the demand of the Sindicatos (a syndicate) that the organization cease its independent activities and become a part of the official syndical machinery. Fish packers were reluctant to become involved in the Sindicatos claiming that their organization was a cooperative. But the pressure lately on the part of the official organizations has been so strong that in a recent meeting the Association agreed to appoint a commission to discuss with the syndical authorities conditions for their integration into the Syndicatos. Some of the packers hope that if the Association is integrated into the Syndicatos the Government will give more attention to the needs of the industry.

Fishing: Fishing activities in the Vigo District of Spain increased during March with the return of most of the vessels which had moved to southern ports during the winter, an April 14 U. S. consular dispatch from Vigo states. The small-range or

coastwise fleet was engaged in the seasonal fishing for "castaneta" (brama-raii) and catches were good. This season was approaching the end and many of the vessels would have to be tied up for a time because the closed season for sardines (the other species fished by the small-range fleet) would not terminate until April 30.

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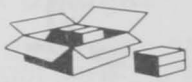
FISHING FLEET GRANTED LOAN CREDIT FOR MODERNIZATION: The granting of a credit of 25 million pesetas (US$1.1 million) to modernize the Spanish short-range fishing fleet of small vessels operating out of Vigo, El Grove, Marin, and Cangas was announced recently by the Marine Credit Bureau of Instituto Social de la Marina. Seventy percent of the grant was to be allocated during mid-May, reports a May 13 U. S. Embassy dispatch from Madrid.

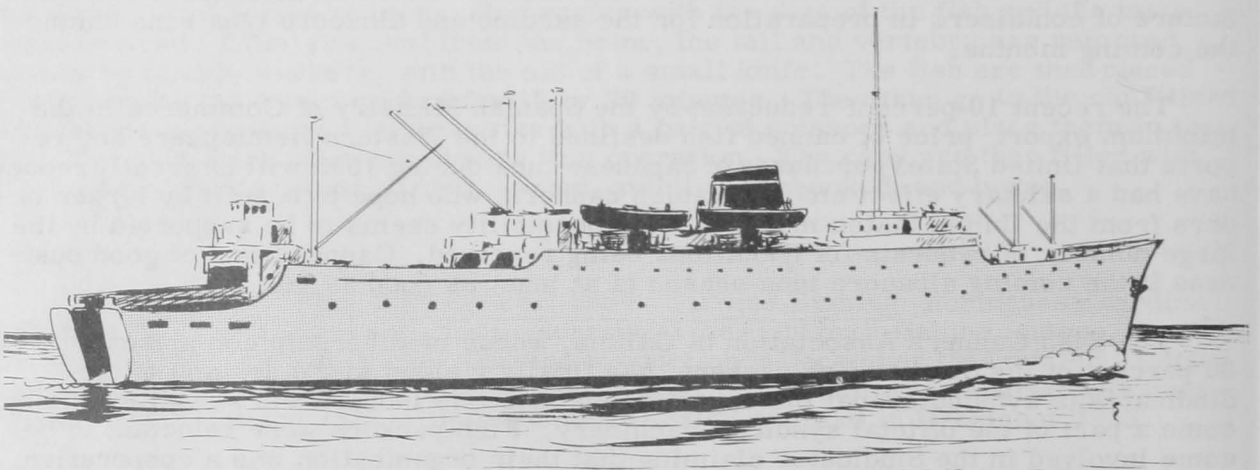
Tunisia

CANNED FISH EXPORTS, 1954: Tunisian exports of canned and preserved fish (including meat) during 1954 totaled 3,648 metric tons, valued at 756 million francs (US$2.1 million), reports an April 21 U. S. consular dispatch from Tunis. This is a decrease of 3 percent in quantity and 4 percent in value as compared with 1953 exports of 3,745 tons, valued at 787 million francs (US$2.2 million).



U.S.S.R.

GERMAN-BUILT FACTORYSHIP TRAWLER MAKES TRIAL TRIPS: The M. S. Pushkin, the first of 24 factoryship trawlers of 1,230 dead-weight tons ordered in



The M. S. Pushkin, the first of 24 factoryship trawlers ordered in East Germany by a Russian import firm.

East Germany by the Sudo Import Co. of Moscow, is making its trial trips, according to the German correspondent of Fiskets Gang (March 23), a Norwegian fishery periodical. A German crew and technicians will man the vessel accompanied by a number of experts from the Sudo Import Co. The 24 ships are to be delivered in 1955 and 1956, and will cost 200 million marks (about US$46 million).

The Pushkin was launched in December 1954. It measures 246 feet between perpendiculars, has a beam of 44 feet, and a draft of 17 feet. A 1,900-hp. motor guarantees a speed of 12.5 knots. There is a slipway on the poopdeck for hauling in the special trawl over the stern. Details of the trawl are still secret.

From the afterdeck the catch drops through two openings on port and starboard to the main deck where the processing equipment is installed. The fish are butchered at six stands and the waste directed to a fish-meal plant which can produce up to 20 metric tons of meal in 24 hours. The best fish livers are canned on the same deck while the remaining livers are processed into liver oil.

On both sides of the ship conveyors carry the fish to (Baader) heading and filleting machines and then to the packing room. Eight women pack the fillets in freezing trays which are placed in 4 freezing tunnels. The 7.7-pound blocks are water-glazed after removal from the trays and packed in cartons holding 66-77 pounds each. The cartons are stored at -20° C. (-4° F.) in a room which has a total capacity of 700 metric tons of frozen fish and fillets. The ship's maximum capacity is 20 tons of fillets, 10 tons of frozen fish, and 20 tons of fish meal each 24 hours. This requires a daily catch of 60 tons of fish, which hardly can be achieved on a permanent basis even on rich banks. The storeroom is amidships under the factory deck and served both by conveyors and an elevator.

The vessel has a crew of 98 including a number of women. Officers have single cabins on the bridge deck and the crew is accommodated in cabins for four.

Uruguay

FISH OIL AND FISH-LIVER OIL IMPORTS, 1954: Uruguayan imports of cod-liver oil in 1954 totaled 63 metric tons, arriving from Germany (40 tons), Norway (14 tons), United Kingdom (5 tons), and the United States (4 tons). Fish-body-oil imports in 1954 totaled 11 tons and came entirely from Germany. There is no production of fish oil and fish-liver oil in Uruguay, states a U. S. Embassy dispatch (April 12) from Montevideo.

Venezuela

SALE OF SARDINES TO BRITAIN FALLS THROUGH: A sale of 50,000 cases of Venezuelan canned sardines to Great Britain has fallen through, according to an April 22 U. S. Embassy dispatch from Caracas, because although fish quality was satisfactory, the price was not. The canners mourn the loss of a sale of 2,000 metric tons of fish and see no possibility of selling to the British unless the Government will give more favorable exchange rate for this particular transaction.

Editorial Assistant--Ruth V. Keefe Illustrator--Gustaf T. Sundstrom

Compositors--Jean Zalevsky, Alma Greene, Helen Joswick, and Lola Perkins

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