



## International

### PERMANENT COMMISSION FOR THE DEFENSE OF MARITIME RESOURCES OF SOUTH PACIFIC

AGENDA FOR FIFTH MEETING: The Chilean Section of the Permanent Commission for the Defense of Maritime Resources of the South Pacific (Chile, Ecuador, and Peru) announced the proposed agenda for the fifth meeting of the Commission which was scheduled to take place in Santiago in September. The agenda was to consist of the following items:

- (1) election of board members;
- (2) report of the Secretary General;
- (3) consideration of applications for permission to hunt sperm whales;
- (4) establishment of quotas for hunting of whales for whale bone from land-based stations;
- (5) establishment of quotas for hunting sperm whales by use of "factory" whaling ships;
- (6) consideration of a "Committee on Biome" concerning scientific bases for sustaining the principle of a 200-mile territorial limit;
- (7) relations of the Commission with the International Whaling Conference;
- (8) statistics concerning fishing and whaling;
- (9) approval of the budget;
- (10) election of the Secretary General; and
- (11) additional business.

In discussing the meaning of the Chilean proposal regarding the "Committee on Biome," the press report referred to the belief that there is need for further study of the inter-relationships existing between climatic elements and atmospheric characteristics of coastal countries with the adjacent maritime zone.



## Republic of Argentine

NEW FROZEN SHRIMP PROCESSING PLANT: An Argentine firm recently purchased refrigeration and plant equipment for processing frozen shrimp for export.

The equipment, of Danish origin, and which is said to have cost in the neighborhood of 1,500,000 pesos, is expected to arrive in Argentina in about a month. The plant, of latest design, will have its own power generator and otherwise will be the most modern of its kind in South America. Its location will be at the southern port of Rawson, Provincia of Chabut, where shrimp are found in quantity.

The shrimp season in southern Argentine waters is from October to March and the company expects to get under production during the coming season. It estimates export possibilities are between 660,000-1,000,000 pounds of frozen shrimp during the 6 months season.



## Australia

NEW SHRIMP FISHING GROUND FOUND: The shrimp (prawn) survey recently started by the Australian Commonwealth Government has already resulted in the discovery of a large and apparently very rich shrimp fishing ground. An announcement of this discovery was made by the Minister for Primary Industry on July 13, 1957. The new ground is already being fished and shrimp taken there should permit an increase in Australia's shrimp exports, particularly to the United States.

According to an officer of the Fisheries Division of the Department of Primary Industry, 3,000 pounds of king and tiger shrimp were netted on the new ground in one night. Newspaper reports say these shrimp measured 6-11 inches in length. No banana shrimp were found. Banana shrimp are presently the most popular variety exported from Australia.

The ground extends from 6-20 miles off the Southern Queensland coast near Fraser or Great Sandy Island in water up to 35 fathoms deep, states a July 24 dispatch from the United States Embassy in Canberra.

\* \* \* \* \*

### TRAINING CENTER FOR FISHERIES COOPERATIVES AND ADMINISTRATION:

The relatively advanced organization of fishermen's cooperatives in Australia and that country's long experience in fisheries administration has led the United Nations' Food and Agricultural Organization to ask Australia to be host to an International Training Center. Participants (about 35) will be nominated by the member Governments (includes the United States) of the Indo-Pacific Fisheries Council. The training center will be held in Sydney and Adelaide from December 16, 1957, to January 25, 1958, it was announced on June 30.

The Center is designed for fisheries cooperative leaders and for Government officials concerned with cooperative organization in fisheries. It will be conducted by the Australian Fisheries Division, Department of Primary Industry, with the Assistant Director of Fisheries as Director. The Food and Agricultural Organization will supply an Associate Director and some lecturers. All other personnel will be supplied by Australia, according to a July 25, 1957, dispatch from the United States Embassy in Canberra.



## Brazil

### SURVEY BY JAPANESE CONTRIBUTES TO STUDY OF FISHERY RESOURCES:

The survey of the fishery resources off the coast of Brazil, under way since the latter part of December 1956 by the Japanese research ship Toko Maru, has resulted in the conclusion that a daily catch of 10-15 metric tons of tuna is possible without depleting the resource. The Japanese research ship was invited to conduct a survey of Brazilian fisheries resources by the Government of Brazil. The Toko Maru is a well-equipped vessel of 1,100 tons with a capacity of 200 tons of frozen fish, a crew of 54, and 8 Japanese scientists.

The explorations of the Toko Maru were first carried out off the southern part of Brazil (Rio Grande do Sul) where 67 oceanographic stations were made. No tuna were found in this area. Later the vessel fished in the waters off the State of Rio de Janeiro for species of tuna. One species of tuna was found off Cabo Frio. From this area, the vessel sailed further north to Maceio and up to the mouth of the Amazon River, where another species of tuna was found.

The survey by the Japanese scientists confirms the results of previous surveys made by two Brazilian specialists in 1938, points out an August 2, 1957, dispatch from the United States Embassy in Rio de Janeiro.



### Canada

SALMON SPORT FISHING CATCH IN BRITISH COLUMBIA, 1956: British Columbia sport fishermen last year caught 11 percent more salmon than in 1955, although in the same period the commercial catch of salmon showed a decline.

The sport catch in 1956 of spring and jack salmon totaled 64,000 fish, an increase of nearly 20 percent, while grilse increased from 142,000 fish in 1955 to 168,000 last year. The sport catch of coho declined about 10 percent from the previous year with a total catch of nearly 71,000 fish.

Greater fishing activity from rental establishments and a sharp increase in private boat ownership were the probable reasons for the heavier sport fishing catch.



### Cuba

CLOSED SEASONS FOR FISH AND SHELLFISH REVISED: The closed season for lane snapper (biajaiba) and croaker (corvina) originally imposed on April 18; on Cuban snook (bohala) imposed May 1; and on clams (almejas) imposed on May 10 was officially ended effective July 31.

A closed season was imposed on gray snapper (caballerete) and Cuban snapper (cubera) beginning July 25. The closed season on these species will remain in effect until revoked.

The above changes in regulations were published by the Cuban National Fisheries Institute in the Official Gazette, No. 141, dated July 22, 1957.



### Ecuador

FISHERIES TRENDS, 1956: The fishing industry is potentially a strong feature of the Ecuadoran economy. Although Government revenue from licenses granted to United States tuna vessels declined drastically in 1956 (due to the high cost of the license, continued restrictions on privileges of foreign vessels, change in fishing habits of the U. S. tuna fleet, and competition from Japanese tuna), locally-established fishing companies (mostly U. S. -owned) were active, particularly in shrimp fishing.

Ecuador's shrimp exports are valued at about US\$2.5 million annually. This is not apparent from Ecuadoran official figures, which reflect only those dollar earnings which exporters are required to deliver to the Central Bank. The delivery requirement was increased from \$100 to \$300 a ton in 1956 on the ground that the Government was being deprived of too great a share of the fisheries revenue. The Government also insisted that companies pay full export taxes on frozen fish shipments, since little actual canning was being done.

A pilot fish flour plant was opened at Manta under Food and Agriculture Organization auspices, points out a July 16, 1957 United States Embassy dispatch from Quito.



## France

**IMPORTS OF CANNED FISH, 1956:** In 1956 France imported approximately 62.3 million pounds of canned fish. Of this 2 million pounds, valued at about 339 million francs (US\$968,571), consisted of salmon; 40.8 million pounds, valued at about 6.2 billion francs (\$17.7 million), consisted of sardines; 19.4 million pounds, valued at 2.2 billion francs (\$6.3 million), consisted of other fish.

French Morocco was the principal supplier of canned sardines with 30.1 million pounds. The next largest supplier was Portugal with 5.5 million pounds.

Some of the countries that provided France with various kinds of canned fish other than sardines were as follows: Tunisia, 4.4 million pounds; Western Germany 4.4 million pounds; French Morocco, 2.6 million pounds; Norway 1.9 million pounds; and Portugal, 1.7 million pounds. (Industria Conservera, March 1957.)



## German Federal Republic

**FACTORYSHIP HAS UNUSUAL NEW DESIGN:** An unusual new design is the principal characteristic of the German Diesel-driven factoryship Heinrich Meins, built in Bremerhaven. The vessel, which was on its maiden voyage to the cod fishing grounds off Greenland in June, has a stern like that of the British factoryship Fairtry and no rudder, points out the June 14 issue of The Fishing News, a British fishery periodical.

Her endurance is 60 days. Her two most unusual features are a slip-way stern (as in the Fairtry) and two propellers set forward of the engines. Steering is controlled by these propellers so that the craft has no rudder.

The owners were pioneers in this type of vessel and have already ordered a sistership which, however, will be driven by ordinary screws.

The vessel Heinrich Meins cost 3.5 million Deutschmarks (US\$833,000).

The most impressive part of the ship is undoubtedly the working space below decks. The catch is handled on a "production line" system, with moving belts and no more than 5 or 6 men are necessary to work the catch (fish can be handled faster than they are caught).

The fillets proceed in a bulk wagon (on rails) to an American-type freezing room, where they are frozen for two hours at -48° F. The freezer can handle 8 metric tons a day. Fillets, particularly of cod, can be salted instead of frozen.

The maximum (for about 30 fishing days) is a catch of about 50,000 pounds a day, and the catch for the last 3 or 4 days of the trip will be iced for sale as fresh fish.

The fish are handled on the lower deck, from which three large openings lead to the fresh-fish hold. Moving bands go

down into the fish-meal factory, which has a daily capacity of 20 tons, and also to the cooking boilers. The vessel holds 80 tons of meal and 47 tons of fish oil.

The captain's cabin is on the starboard side below the main deck, and the chief engineer's cabin is over the engine-room. The crew's cabins hold from 2 to 6 men each, and the wireless room is under the bridge.

The vessel's main specifications are as follows: gross tonnage, 825.74; net, 347.08; over-all length 228 ft.; length at waterline 213 ft.; beam 33 ft.; fresh fish capacity, 5,500 baskets; deep-freeze capacity, 148 cubic meters net; fish meal capacity, 135 cubic meters. She will be capable of 13 knots with 1,200 hp.

From the stern, going forward, there is the slipway and netroom, the fish-meal plant, fish-meal storage, oil plant, oil tanks, and fish room.

On the second deck--fish factory, engine room with two Diesel engines driving two propellers, and sundry tanks in the bows. Accommodation is forward, as is the bridge and winch gear.

The ship is built of steel. She has two decks, the lower being the freeboard deck. The usual fishing gear is built in. Provision is made for a crew of 38 men. With a view to long-range operation, reserve cabins are provided in addition. The main bridge has an unhindered view aft, and the chartroom, though small, is sufficient for its purpose. The winch gear only differs from the usual equipment in having two extra small drums, and has electric drive.

The two propellers are set forward of the engine so that the nets, which go over the stern, should not foul the screws. One of the particular features of the propellers used is that no rudder is necessary.

The main engines are two Diesels giving a maximum of 750 hp., each with reduction gear to the shaft. There is also a Diesel dynamo compressor, and a Diesel dynamo of 80 kw.

An oil-fired auxiliary boiler and two gas boilers are provided, and also a fresh-water plant.

NOTE: THE FAIRTRY HAS SCREWS AT THE REAR, BUT HER OVERHANGING SLIPWAY PROJECTS SUFFICIENTLY FAR BEYOND THEM TO AVOID ANY RISK OF FOULING.

\* \* \* \* \*

PRACTICAL TESTS OF ELECTRICAL FISHING PROPOSED IN COASTAL WATERS: From Kiel, Germany, comes the report that the first practical tests will be made in coastal fishing with electrical fishing devices. These trials will not be new isolated tests but will be done on a large scale.

In the method that will be used, the fish will be lured into nets by creating an electrical field. This invention is chiefly credited to Dr. Kreuzer and Peglov, an engineer. Many trials have been made with electrical fishing lines in fishing for tuna. (Spanish fishery periodical Industria Conservera, March 1957.)



## Guatemala

FISHING RIGHTS GRANTED IN MAY 1956 SHOW PROMISE OF DEVELOPING INTO LARGE INDUSTRY: As a result of the agreement signed on May 2, 1956, by the Guatemalan Government, it now appears that fishing operations will start soon on the Pacific coast of Guatemala, provided some controversial points can be settled. Territorial fishing rights (not exclusive) are granted for 10 years and are for fishing off both the Pacific and Atlantic coasts, states a June 10 dispatch from the United States Embassy in Guatemala. The territorial fishing rights were granted to a local businessman.

The dispatch states that investments in boats, equipment, and materials for the planned Pacific operation may reach US\$4 million. Under the terms of the contract, the contractor is authorized to subcontract any part of the operation which he elects. Reports from other sources indicate that the boats to be used will be provided by two United States fishery concerns. These firms will probably make unspecified additional investments in one form or another. Emphasis will first be placed on shrimp fishing with plans to extend to fish later. Also, plans are already under way to extend operations to the Atlantic side.

The mothership Irma Catalina is already at San Jose ready to begin operations. It is a large modern boat, valued at US\$2 million. Three smaller boats also have arrived at San Jose and others are believed to be en route. Under the terms of the Guatemalan Industrial Development Law, machinery, equipment, and supplies would be permitted entry duty free.

In addition to developments under this contract, the government has recently announced the signing of a similar contract with another local business firm. Several additional United States firms are expected to make investments, in one form or another, in any operations which may develop under this contract. It has been reported that the initial capital investment is US\$100,000; the extent to which this will increase depends upon future developments.

This second contractor plans to first conduct additional exploratory work. If the results look promising, present plans would be to first concentrate on shrimp fishing on the Pacific coast and later extend operations to fish and to the Atlantic side. Considerations are being given to operating at Ocos, near the Mexican border, provided the cost of making this port suitable for fishery operations would not be prohibitive.



## Italy

FROZEN TUNA DELIVERED BY JAPANESE VESSEL: A Japanese tuna vessel delivered frozen tuna to the Italian port of Venice in mid-1957. The fish was caught by the Japanese vessel in the Indian Ocean.

A number of contracts have been signed and others are in the negotiation stage for deliveries of full loads of frozen tuna in October and November 1957 at Genoa, Leghorn, Naples, and Bari.

Two Japanese fishing vessels will make the deliveries. One is operated by a Tokyo fishing firm and the other by an Osaka fishing firm. (Il Giornale Della Pesca, July 20, 1957.)

## Japan

NORTH PACIFIC SALMON CATCH FOR 1957 BY MOTHERSHIP: Japan's North Pacific salmon catch from mothership-type operations for the 1957 season totaled 99,984 metric tons, roughly equal to the 100,000-metric-ton quota established for this year under the U.S.S.R.-Japan Fisheries Agreement. Final figures of the salmon catch from shore-based drift-net fishing operations in the restricted area are not available, but the above source estimates that the 20,000-metric-ton quota was met without difficulty.

According to the Japanese Fisheries Agency, Japan's salmon catch for the 1957 season (May-August 10) from mothership-type operations in the North Pacific was larger than for the previous year when 93,000 metric tons were caught. A breakdown of the quota and the actual salmon catch for 1957 by areas is reported as shown in table.

No final figures of the above catch by species are available at this time, however, industry sources report that the catch of commercially-valuable red salmon was exceptionally good. It has been estimated by them that the red salmon catch for the 1957 season will make up about 45 percent of the total salmon catch. During the 1956 season, the red salmon catch accounted for 20 percent of the total salmon catch.

	Quota	Actual Catch
	.. (Metric Tons) ..	
Aleutian Waters . . . . .	87,000	86,984
Okhotsk Sea . . . . .	13,000	13,000
Total . . . . .	100,000	99,984

The Japanese fishing industry attributes the highly successful catch to favorable weather conditions, abundant salmon runs, and the absence of Russian interference in the fishing area. The Japanese Fisheries Agency reports that the salmon catch per haul was so heavy in some cases that fishermen experienced difficulty in hauling in their nets. Furthermore, they report that the whole salmon fleet was able to meet its quota for the season between July 15 and 31, far ahead of the deadline date of August 10.

In addition to the mothership-type operations, there are Japanese shore-drift-net boat operations in the Aleutians. Although no information regarding their salmon catch is available at this time, a Japanese Fisheries Agency official reported that it is expected that the 20,000-metric-ton quota for the 1957 season was met without difficulty. Final salmon catch data are expected to become available about the end of September (U. S. Embassy in Tokyo, dispatch dated August 16, 1957).

JAPANESE GOVERNMENT



## Libya

FISHING AND SPONGE INDUSTRY: The Mediterranean Sea off the coast of Libya is amply endowed with sponge beds and fishing grounds containing tuna, sardines, red mullet, marjan, trillyh, garagone, and other varieties. Many of the fish caught are unusually large and well developed. One scientific hypothesis attributes this to the beneficial effects of the frequent ghibli winds from the interior which carry out to sea large quantities of sand with a fairly high salt content. Local fishing boat captains, however, explain the rich and varied fish life as due to plentiful marine vegetation in fairly shallow waters, pointing out that there is an exceptionally wide continental shelf, from 17 to 45 miles wide, all along the coast of Libya.

Fishing: Despite this long coastline and rich potentialities, however, fishing is of minor importance. The Libyan Arabs are not a seafaring people and most of the fishing is done by Italian, Greek, and Maltese ships or crews. The main commercial catches are sponges, tuna, and sardines.

The canning of tuna and sardine is concentrated in Tripoli where seven firms are engaged in the industry. There are about 240 small boats engaged in this fishing, most of which is limited to Tripolitanian waters.

Sponge Industry: The sponge fishing industry can be traced back over 2,000 years and by tradition it is monopolized by Greek fishermen. Only a very small fraction of the sponges, some 3 to 5 percent, is obtained by the Arabs using small boats and harpoons, or skin diving, in the shallow inshore waters up to depths of 10-15 fathoms. Deep-sea trawlers account for about 20-30 percent of the harvest. The best results in both quantity and quality are obtained by the third method, the use of diving ships. These vessels, almost exclusively Greek-owned or operated, exploit the sponge beds at depths of 10 to 35 fathoms or more. Casualties among the divers are high; many deaths result from Caisson's disease, but this is apparently accepted as a necessary evil.

The number of ships and small boats used in sponge fishing varies from season to season but the average year will find about 120 diving ships operating in deep water, while the number of small boats is roughly estimated at around 120.

#### Exports:

	Quantity			Value		
	1956	1955	1954	1956	1955	1954
	(Metric Tons)			(US\$1,000)		
Sponges . . . . .	50	70	109	531	713	1,054
Preserved Fish	913	719	775	464	312	310
Fresh Fish . . .	140	139	-	44	55	-
Total . . . . .	1,103	928	884	1,039	1,080	1,364



## New Caledonia

MARINE PRODUCTS INDUSTRY: Although the waters surrounding New Caledonia contain an abundant supply of fish of all types, the inadequacy of the supply for local consumption necessitated the importation during 1956 of 277 metric tons of canned fish valued at 10,000,000 francs (US\$157,000). Local production rarely exceeds 20 tons a month. Japanese fishing boats have recently been sighted in the nearby waters in search of tuna, but nothing is known here of their success.

About 2,000 people are engaged in the trochus shell industry. The industry suffered considerably in 1956 as a result of the depletion of shell stocks. Despite increases in the export price from 50,000 to 60,000 francs (US\$785 to \$942) per ton, production in 1956 fell to 402 tons from 723 tons in 1955. The total value of the trochus shells exported during 1956 was estimated at 25,000,000 francs (US\$392,000). The industry has made efforts to replenish the island's stocks of shells, but it is doubtful whether the results will be significant for several years. (United States consular dispatch from Noumea, July 8.)



## New Hebrides

TUNA FISHERY AND CANNERY PLANNED: Santo, New Hebrides, is to have a tuna fishery enterprise and cannery. Little has been heard of this project for almost a year and at that time it was believed that nothing would come of the scheme, due to anti-Japanese feeling in the New Hebrides and in Australia.

Originally the scheme was to catch and can tuna in Santo with the aid of Japanese fishermen and technicians. The original scheme may have been modified since then, as it is now stated that the cannery side of the project involves a French canning company and a Japanese fishing company.

Work is now in progress on a wharf at Palikula (SE. Santo) and also a refrigeration plant that will be able to turn out

20 tons of ice a day. There will be a freezing chamber and cold-storage as well as an ice-making plant. A mechanical conveyor will transport the fish from the fishing vessels to the plant.

The bulk of the fish taken and treated for export will be tuna, with some bonito, states the Pacific Islands Monthly of May 1957. The fish will be caught by Japanese-owned and manned ships which will operate on 12-month contracts before returning to Japan for overhaul, etc. There are at present 15 Japanese technicians at Palikula supervising the erection of the freezing plant; 34 more are expected to be given 3-year entry permits pending the time when local people, native or Tonkinese, are trained to operate the plant.



## Norway

FISH CANNING INDUSTRY, 1956: The principal products of the Norwegian fish canning industry are brisling, sild, and kippered herring. The pack of kippered herring in 1956 amounted to 75 percent of a normal year's production, due to a large quantity of stocks held over from the previous year.

The brisling sardine pack has been down for some time. Only 197,768 cases were produced in 1956--approximately two-fifths of a normal year's pack (about 500,000 cases).

The catch of small sild herring, adequate for canning, declined in 1956. The repercussion of this was felt in the raw material available to canneries. The usual total yearly pack of small sild has been approximately 900,000 cases, but in 1956 the pack amounted to only 634,893 cases of smoked sild and 51,459 cases of unsmoked sild.

Exports were affected by the low brisling production. From January 1 to December 1, 1956, total exports of canned fish amounted to 28,000 metric tons, valued at 127.3 million crowns (US\$17.8 million). For the same period in 1955, exports of canned fish amounted to 28,611 tons valued at 130 million crowns (US\$18.2 million). (Industrial Conservera, March 1957.)

\* \* \* \* \*

WHALE OIL AND MEAT SUCCESSFULLY PRESERVED WITH ANTIBIOTICS: A Norwegian whaling company reports that its extensive experiments with injecting antibiotics into whales, at the same time as they are harpooned or shortly after, have been most successful. The whale meat has kept fresh much longer than usual, and the yield of best-grade oil has been boosted from 70-90 percent of the total production. Last season, at South Georgia, some 500 fin whales were injected with terramycin, made by a United States firm. The tests are conducted in close cooperation with the United States firm.

The whaling company's chief chemist says the whale oil shows no trace of antibiotics. Also, the meal and other byproducts of terramycin-treated whales are of higher quality than those made from non-injected animals. New experiments, now under way in North Norway, will aim at better meat preservation. (News of Norway August 15, 1957.)

\* \* \* \* \*



**WHALING INDUSTRY TRENDS: Whale Oil Prices:** Sales of Norway's 1956/57 Antarctic whale oil production at the beginning of the April-June 1957 quarter were made at about US\$252 a long ton (2,240 pounds) as compared with an average of about \$240 a ton for the 1955/56 season. By May prices had dropped to \$238 a ton and 47,000 tons were reported to have been sold at this price. According to late June press reports, 31,000 tons remained to be sold out of a total of 140,000 tons, a July 25 dispatch from the United States Embassy in Oslo states.

**Limitation on Number of Catcher Boats:** During an early June conference in London, preceding the meeting of the International Whaling Commission, Norwegian whaling companies were unsuccessful in persuading the Dutch and Japanese to limit the number of catcher boats. Norwegian whaling companies are interested in having the number of catcher boats reduced because they consider it uneconomical to support more than a limited number.



## Panama

**SHRIMP INDUSTRY EXPANDING RAPIDLY:** The shrimp industry of Panama is expanding rapidly with 1956 operations valued at well over \$5,000,000. There were 6 companies and some 100 boats engaged in shrimp operations at the end of the year. Five companies shipped frozen shrimp to world markets; the other dealer supplies the local and the Canal Zone markets with fresh shrimp. Exports for 1956 totaled 6.2 million pounds, an increase of 46 percent over 1955.

The average take of a boat per trip is 1,500 pounds and an average trip is 5 days. The maximum fishing depth of the present shrimp fleet does not exceed 50 fathoms. The large white shrimp forms about 80 percent of total exports. Shipments of small species, peeled and deveined, are increasing. The landings of pink shrimp, which is found in abundance in the Gulf for the short season of cold water (between 20°-30° C.), totaled 600,000 pounds in 1956 as compared to 100,000 pounds in 1955. The catch would have been larger had not the boats tied up for Holy Week.

A cooperative, with predominantly Panamanian capital and enjoying concessions extended under Law 12 of May 1950, dominates the industry. Its own fleet numbers 52 boats and a number of privately-owned boats are under contract. Its production, about three-quarters of the total, is all exported. Since its income is derived exclusively from foreign sales, its operations are tax free. The cooperative is presently constructing new and expanded facilities on Taboga Island where a deep-water cove will permit around-the-clock unloading and servicing of its boats. A fish-meal plant is completed and will initiate operations shortly with its own fleet of boats equipped for purse-seining. Unutilized fish of the shrimp boats and wastes of shrimp and fish fillet operations will also be used for reduction. The marine shops and storehouse now under construction will permit building, repair, and servicing of its own boats. Its 206-foot dry dock will

accommodate ships of 1,000 tons and permit repair of tuna boats fishing in this area. Its shrimp and packing operations will eventually be transferred to Taboga, but present facilities are being enlarged to permit brine-freezing of the large white shrimp for select trade.

A new shrimp company, owned jointly by Panamanian and United States capital, was organized in November and was expected to begin operations in 1957. The company will operate its own fleet and export frozen shrimp and lobster tails. It proposes to build a freezing plant with a daily capacity of 100,000 pounds of shrimp.

The Government has expressed concern over the uncontrolled fishing of shrimp and the possibility of exhausting this valuable resource.

Fish fillets are produced by several of the shrimp companies as a byproduct of the shrimp industry. Corbina, red snapper, and flounder are the principal fish used. The local market and the Canal Zone consume most of the production of about 1,000 pounds daily. Small quantities have been exported when available. There are no boats engaged solely in commercial fishing of these species.

The boat building industry has developed rapidly under protection of the law of 1954 which requires all boats engaging in fishing in Panamanian waters to be constructed in the Republic. Some 8 companies have been established in the last few years. The average boat is 60 to 65 feet and costs between \$17,000 and \$20,000 without motor. Construction in 1956 averaged a boat every two weeks. As of the end of the year there were 45 keels laid down and another 30 on order. Three companies are constructing steel boats, points out the United States Embassy in Panama in a dispatch dated May 10.



## Peru

**REVIEW OF THE FISHERIES, 1956:** The total fish catch for Peru in 1956 appears to have been good.

The canned fish pack (including tuna and bonito) was approximately 1.8 million cases in 1956, as compared with 1.4 million cases in 1955. Rapidly increasing

labor costs and Japanese competition are, however, narrowing the margin of profit for canned fish. Peruvian canners shifted their main attention to the British and European market beginning in 1955, but Japanese canners began to move heavily into that market at the end of the year.

Frozen fish exports compared favorably with the previous year. Fish meal exports nearly doubled in 1956, reaching \$3.5 million f.o.b. in value.

Whaling (almost entirely sperm) showed no important change in respect to the kill, but work on the erection of a \$1-million sperm oil and meal plant began, and a fleet of three Norwegian catcher boats arrived in November.

Exports of fisheries products in 1956 were about \$15.4 million as compared with \$12.7 million in 1955. (United States Embassy dispatch from Lima.)



## Portugal

CANNED FISH EXPORTS, JANUARY-MARCH 1957: For the first three months of 1957, canned fish exports amounted to 10,841 tons (570,500 cases), valued at US\$6.9 million. Sardines in olive oil exported during the first three months of 1957 amounted to 7,299 tons (384,200 cases), valued at US\$4.6 million.

Product	January-March 1957	
	Metric Tons	US\$
Sardines in olive oil . . . . .	7,299	4,648
Sardinelike fish in olive oil . .	1,473	1,193
Sardines & sardinelike fish in brine . . . . .	625	159
Tuna & tunalike in olive oil . .	189	169
Tuna & tunalike in brine . . . .	49	27
Mackerel in olive oil . . . . .	930	553
Other fish . . . . .	276	123
Total . . . . .	10,841	6,872

In January-March 1957 the leading buyers of canned sardines in olive oil were: Germany, 1,227 tons (US\$580,000), France 924 tons (US\$588,000), Italy 650 tons (US\$397,000), British West Africa 730 tons (US\$455,000), and Belgium-Luxembourg 586 tons (US\$362,000). These countries purchased 69 percent of the quan-

tity and 68 percent of the value of all Portuguese exports of canned sardines in olive oil. Exports of sardines in olive oil for the first three months of 1957 to the United States amounted to 251 tons (valued at US\$208,000), while exports to the Philippines totaled 223 tons (US\$141,000).

\* \* \* \* \*

CANNED FISH PACK, JANUARY-MARCH 1957: The Portuguese light pack of canned sardines in oil of only 14 metric tons during March 1957 was due to the closed season on sardine fishing. The pack of all canned fish in March 1957 amounted to 692 tons, the July 1957 Conservas de Peixe reports.

The total pack of canned fish for January-March 1957 amounted to 3,823 tons as compared with 1,429 tons in the similar period of 1956. Canned sardines in oil (1,797 tons) accounted

Product	Net Weight	Canners' Value
	Metric Tons	US\$
<u>In Olive Oil:</u>		
Sardines . . . . .	1,797	1,000
Sardinelike fish . . . . .	529	1,109
Anchovy fillets . . . . .	1,031	1,059
Tuna . . . . .	60	50
Other species (including shellfish) .	242	146
<u>In Brine:</u>		
Sardinelike fish . . . . .	81	27
Other species . . . . .	83	24
Total . . . . .	3,823	2,731

for 47 percent of the January-March total pack, much higher than the pack of 532 tons for the same period in 1956.

**CORRECTION:** In the January 1957 Commercial Fisheries Review, p. 82, in the news item "Portuguese Canned Fish Pack, January-June 1956," all references to "cases" in the text should be corrected to read "tons."

\* \* \* \* \*

**FISHERIES TRENDS, MAY 1957: Sardine Fishing:** During May the Portuguese fishing fleet landed 7,923 metric tons of sardines (valued at US\$933,391 ex-vessel, or \$118 a ton). In May 1956, a total of 825 tons of sardines were landed with an ex-vessel value of US\$191,373.

Sardines purchased by the canneries during May amounted to 3,487 tons (valued at US\$449,391 ex-vessel or \$129 a ton), or 44 percent of the total landings. Only 3 tons were salted, and the balance of 4,433 tons, or 56 percent of the total, was purchased for the fresh fish market.

**Other Fishing:** The May 1957 landings of fish other than sardines consisted of 1,322 tons of anchovy and 1,987 tons of chinchard. (Conservas de Peixe, July 1957.)



## Spain

**VIGO FISHERIES TRENDS, JUNE 1957:** Fish landings in the Vigo area in June were greater than in May. A good albacore tuna season is predicted. Most of the fish canneries resumed operations by the end of June, packing albacore and sardines.

**Fishing:** Fish catches landed at Vigo and sold through the local fish exchange in June amounted to 10.9 million pounds valued at 45,602,237 pesetas (US\$1,085,333)--an increase in volume of about 33 percent over the previous month and about 38 percent over June 1956.

The principal varieties landed at Vigo during June were horse mackerel, hake and small hake, albacore tuna, and a fish known locally as "gallo" (*Lepidorhombus bosci*). Sardine catches showed an improvement over May and amounted to 304,000 pounds. The sardines were found to be in a good condition for packing, but the June catches were below expectations.

Vigo's albacore fleet put out to sea during the second half of June and had fairly successful catches. For the present, a good albacore season is anticipated with catches higher than for 1956. A number of fishing vessels from the Cantabrian region (mainly from San Sebastian) unloaded their albacore catches at Vigo.

The canneries in the Vigo area were able to purchase the first catches of albacore at around 15,00 pesetas a kilogram (US\$320 a short ton) but higher prices are anticipated as the season develops.

**Canning:** The canneries in the Vigo area purchased 1.4 million pounds of fresh fish through the local fish exchange in June as compared with 0.4 million pounds for the previous month and 0.1 million pounds in June 1956.

The supply of olive oil continued adequate. However, tin plate was still scarce for canning operations. Although import permits for tin plate are being granted to the extent of the 20 percent of foreign exchange allowed on exports, this alone is insufficient.

Domestic and foreign markets for canned fishery products were dull during June. Stocks were low for the varieties in demand abroad and the prices for domestic consumption are probably from 10 to 15 percent higher than for the same period of 1956. The Cataluna district of Spain is the principal domestic market for canned fishery products. Albacore has a good foreign demand and it is anticipated that exports will be at a high level as soon as stocks are built up, states a July 6, 1957, dispatch from the United States Consul in Vigo.



## Sweden

**DEVELOPMENT OF FROZEN FISH INDUSTRY AND MARKETS:** The marketing of quick-frozen fish in Sweden goes back to 1948 when one company in collaboration with a refrigerating company made a survey of the possibilities of producing and selling a first-class quick-frozen product. The general policy decided upon at that time was to give consumers

a guaranteed quick-frozen boneless fish in hygienic packing bearing a brand name. Today that company is by far the dominant Swedish producer of quick-frozen products. Developments following 1948 are described by the managing director of the company in an article appearing in the June 20 issue of Inblick, the company's house organ.

The director writes that over 10,000 retail shops in Sweden are now selling frozen fish. Consumption has increased year after year so that in 1956 it represented about 50 percent of the consumption of all frozen foodstuffs in Sweden. As a comparison he mentions that the consumption of frozen fish in England is calculated to correspond to 15 percent and in the United States to 8 percent of the consumption of all frozen foodstuffs.

Developments in this line were so rapid that as early as the beginning of the 1950's it was evident that it would soon become impossible to meet more than a fraction of the requirements for frozen fish by means of Swedish production. Further, consumers demanded new species of frozen fish, and therefore the company examined the possibilities of freezing a wider range of fish and taking more fish from neighboring countries.

The director also states that because of the continuously growing demand for frozen fish in Sweden, the company was encouraged to investigate the possibilities of getting fish, particularly cod and haddock, from Norway. In cooperation with a sister company, a fish filleting industry was erected at Hammerfest, at the northernmost point of Norway, and quick-freezing commenced in 1951. Fish that is frozen there is now being sold in Norway and Sweden as well as in other countries under the company's brand.

In 1956 the Hammerfest plant was considerably enlarged. Production capacity is now large enough to meet the greatly increased demand in various markets for frozen cod and haddock.

The Swedish company is now seeking to gain more export markets. A joint export sales organization was started last year in Sweden and also at Hammerfest, Norway. Efforts

have heretofore been concentrated mainly on Great Britain, but frozen products are also being exported to Austria, Germany, and other markets. The majority of the company's exports so far consist of vegetables, poultry, and berries from Sweden, but the sale of frozen fish from plants at Hammerfest and Frederikshavn are constantly increasing. The company meets serious competition on the export markets but, according to the director, production costs for frozen fish for instance in Norway for natural reasons are considerably lower than in Sweden and there is "every reason to view the possibilities of a continued success optimistically."

The managing director's article also reveals that during the period January through April this year the Swedish company has produced at its Swedish plants about 750 metric tons of frozen cod fillets, corresponding to almost 80 percent of the total frozen quantity of Swedish cod fillets during that period.

At Varberg, Sweden, the Swedish company started production at the beginning of 1956. The assortment comprises frozen haddock, whiting, and mackerel. The Varberg plant employs about 20 persons.

At Trelleborg, Sweden, the company has collaborated with another company since the fall of 1951. Cod is landed and filleted in a building belonging to this other company. It is thereafter sent for cutting and freezing at Halsingborg, Sweden. This other also fillets fish at Simrishamn, Sweden, and cutting and freezing take place at Halsingborg.

At Vastervik, Sweden, the Swedish started operations in January 1955. At this plant only Baltic herring is filleted and frozen by about 30 persons during the greater part of the year.



## Tunisia

REVIEW OF THE FISHERIES, 1956: The Tunisian fish catch, never high in comparison with the catch of other Mediterranean countries, decreased in 1956. At the end of the year the Tunisian Government was planning a thorough survey of possible expansion of fisheries by a modernization of the fishing fleet, the installation of a refrigeration system, the purchase of larger fishing boats from abroad, and the training of Tunisian crews. The Government also plans to improve the fishing port of Mahdia.

Current problems facing the Tunisian fishing industry (which is operating now at about 45- to 50-percent capacity) are: departures of French fishing boat operators, lack of boats able to remain at sea for several days, untrained Tunisian crews and limited refrigerating capacity. These problems make the industry a high priority objective for economic development. In the meantime the Tunisian Ministry of National Economy may be forced to permit local canneries with a total capacity of 11,000 to 12,000 tons to make contracts with Italian fishermen to assure adequate fish supplies.

Tunisian canneries, of which there are 20, are located at Tunis, Sidi, Daoud, Soliman, Sousse, and Mahdia. Sardines, sardinelles, and mackerel are shipped to France. Tuna is consumed locally, and production is not great enough to keep up with demand, necessitating imports from Norway, Sweden, and Italy.

One factory in Mahdia produced more than 50 percent of the total of 2,500 tons of sardines and sardinelles canned in 1956. About 800 tons of tuna largely for domestic consumption, were processed during the year. (U. S. Embassy dispatch from Tunis.)



## U. S. S. R.

FISHING VESSELS TO EXPLORE SOUTH ATLANTIC FOR NEW FISHING GROUNDS: A Russian scientific expedition which left Kaliningrad in former East Prussia for the South Atlantic on June 29 consists of two fishing vessels, one with a cold-storage hold and the other equipped with freezing plant to serve as a base.

The purpose of the expedition, according to a statement by the leader of the expedition, is to explore new fishing grounds. On board are a group of research workers from institutions in Kaliningrad and Moscow, and the crew are all experienced fishermen.

Work will start in the North Sea and proceed down into the Atlantic as far as the equator in an attempt to establish grounds with the biggest fish concentrations and the oceanographic conditions for such concentrations. In addition, various types of fishing gear are to be tried and modern radio-sounding equipment will be used.

The head of the scientific group said the expedition would carry out all-purpose research as far south as the Gulf of Guinea. (The Fishing News, July 26, 1957.)



## United Kingdom

GUARANTEED MINIMUM PRICE PROPOSED FOR SCOT-TISH AND IRISH WHITE FISH LANDINGS: A guaranteed minimum price is proposed for all landings of white fish in Scotland and Northern Ireland. Fishing vessels of 30 feet and over are to be registered and owners will pay a levy according to the amount of fish landed. And first-hand salesmen and buyers are to be registered.

These are the main provisions in a draft scheme, announced by the White Fish Authority (W. F. A.) in Edinburgh late in June. The scheme is designed to improve the marketing of surplus white fish in Scotland and Northern Ireland.

About 200 trawlers and 500 seine-net fishing boats in the area concerned will have to be registered with the W. F. A. under the scheme, if it is approved by Parliament.

The deputy chairman of W. F. A., and chairman of the Committee for Scotland-Northern Ireland suggested at a press conference that to finance the scheme a levy of 1d. (1.1 U. S. cents) a stone (14 lbs.) was likely on all fish landed. Registration of vessels would be nominal.

The scheme will attempt to introduce a more uniform return for catches and insure better use of surplus edible fish. No longer would surplus fish be dumped back into the sea.

The scheme evolved from proposals made by the Scottish producers, by trawler owners at Aberdeen and Granton, and by inshore fishermen around the coasts. For years their earnings have been seriously reduced by the failure to secure an adequate return on good, edible fish on days when the market is oversupplied. The scheme tries to introduce a greater

stability in first-hand prices and to give producers a more uniform return for their catches.

The scheme envisages greater development of processing.

The scheme provides for the fixing of minimum prices at first-hand sale and for more uniform returns to producers by payments for surplus fish which fail to find a market at or above the minimum price fixed for it.

These payments to producers will be guaranteed prices for fish gutted before being landed from a licensed vessel and "disposal prices" at lower rates for other surplus fish.

Compensation may also be paid at discretion for fish which is landed from a licensed vessel outside Scotland and Northern Ireland or which is offered for sale at any port or market in those countries for which minimum prices have not been fixed.

Payments to producers will be financed from a levy on fish landed and from the proceeds of the disposal of surplus fish. Different minimum guaranteed and disposal prices may be fixed for different varieties of fish: they may also differ as between ports or regions and they may be varied according to the uses to which the fish is put.

The scheme also provides for the licensing of salesmen selling fish at first hand, and of buyers who buy fish at first hand at special prices fixed for certain forms of processing. Particular vessels or persons may be exempted at discretion. A procedure is laid down for an appeal to the Minister in the case of a refusal or revocation of a license.

Surplus fish must be sold to a committee, who have assured the industry that it shall be disposed of through trade channels. The committee is given certain reserve powers to trade in and process surplus fish, but these powers may be exercised only after consultation with trade interests and with the approval of Ministers.

The text of the draft scheme defines surplus fish as white fish which being of legal size and fit for human consumption remains unsold after being offered for sale at first hand because the appropriate minimum price or more has not been offered.

The suggested levy is not to exceed 3d. (3.3 U. S. cents) a stone (14 lbs.) payable within seven days after the end of the week during which the white fish was landed.

The W. F. A. powers under the scheme are:

(a) To sell surplus fish for the manufacture of fish meal and other animal food and, with the approval of the Ministers,

for salting, smoke-curing, quick-freezing, vacuum-drying, canning, or other processing of fish;

(b) To manufacture fish meal from surplus fish and, with the approval of Ministers, to manufacture other animal food from surplus fish and to salt, smoke, cure, quick-freeze, vacuum-dry, can, and otherwise process surplus fish;

(c) To grade, pack, ice, store, transport, market, and advertise surplus fish or any product thereof where necessary and

(d) To do such other incidental things, including the incurring of capital expenditure where necessary or desirable.

Licenses under the scheme will be renewable annually on January 1 at a fee of £1 (US\$2.80), points out The Fishing News of July 5, 1957.

Before fixing prices and the rate of levy, W. F. A. is required to publish its proposals and consider any written objections within 21 days.

\* \* \* \* \*

IMPORTS OF JAPANESE CANNED TUNA LIGHT: Although the British import quota for Japanese canned tuna and bonito for the period October 1, 1956-September 30, 1957, is about US\$1.4 million (ex-dock United Kingdom value), only very small quantities have been imported. Actual United Kingdom imports of Japanese canned tuna were only 200 pounds in all of 1956 and about 1,000 pounds from January-June 1957.

It is the opinion of officials in the Ministry of Agriculture, Fisheries, and Food that there is very little demand of the sort to encourage increased imports of Japanese tuna. It is believed that United Kingdom importers are satisfied with Peruvian packs of tuna or bonito, and show no disposition to seek other sources of supply. (United States Embassy dispatch from London dated August 16.)



#### FORTY-SEVEN SPECIES OF SHARKS IN WATERS OFF FLORIDA

Forty-seven species of sharks are known or suspected in the waters off Florida. Most are uncommon, and occur only in deeper water. The commercial species in inshore waters are the nurse shark, the lemon shark, blacknose shark, bull shark, sharpnose shark, and bonnet shark. The term "sand shark" is used to refer to a large group of sharks.

All sharks are potentially dangerous. Some sharks, shorter than 4 feet are not so dangerous as the longer and larger ones, but one should beware of any shark just to be sure. ("Sea Secrets," September 1957, The International Oceanographic Foundation, Coral Gables, Fla.)