

# INTERNATIONAL

## FAO Caribbean Project Issues Report No. 1

The UN's FAO Caribbean Fishery Development Project vessels "Alcyon" (Jamaica) and "Calamar" (Barbados) carried out experimental fishing for pelagic fishes using the long-line method December 1966-February 1967. Its first cruise report says that the fishing was not productive when viewed against a commercial potential. The best single day's catch (excluding sharks) was 1,000 pounds. However, in assessing catches, certain factors should be considered: the inexperience of crew and trainees; the amount of gear set out never exceeded 75 and averaged 55 baskets--only 15 percent of gear set by Japanese crews for one day's fishing; the early winter season is not particularly good for taking large pelagic species in the Caribbean. But, the report notes, no fishing time was lost, although moderate to strong breezes prevailed.

The area investigated included the Caribbean Sea; west of Cayman Islands; south to the Netherlands Antilles (Curacao Area); and east to the Windward Islands. In the adjacent North Atlantic, fishing was conducted south and east of Barbados and north of Haiti and Dominican Republic.

The long-line gear used has a "basket" (one unit) composed of 7 mainline sections each 30 fathoms long. Five or 6 branchlines were attached to the mainline and these, including the "sekiyama" and leader, measure 12.5 fathoms. This gear was suspended from surface floats by buoy lines 12 fathoms long. The gear fished a depth of 40 to 60 fathoms.

Typically, up to 75 baskets of gear were set out in early morning and retrieval began about midday. The Calamar made one night set. The hooks were baited with either herring (Clupea harengus) or flyingfish (Hirundichthys affinis).

### Tuna Information Obtained

Information on distribution and abundance of tunas and spearfishes resulted from the fishing. Although overall catch rate (fish per 100 hooks) was low, the number of spearfishes

taken was surprisingly high. The Calamar, working generally to the south and east of the Alcyon, took more white marlin than any other species. These catches apparently indicate concentrations of white marlin off the north coast of South America during winter. Some of these were tagged and released in cooperation with the Woods Hole Oceanographic Institute. Blue marlin were more abundant in the Alcyon's catches.

The crews also made observations of oceanographic features, including temperature and salinity to 150 fathoms. (UNDP/FAO, Project Headquarters, Barbados, West Indies, March 10, 1967.)



## International Convention for Fishing in the Northwest Atlantic

### ROMANIA TO JOIN

The Romanian State Council, by Decree No. 34 published in the Official Bulletin of January 30, 1967, approved Romania's adherence to the International Convention for Fishing in the Northwest Atlantic (ICNAF). The State Council Act provides the necessary authority for Romania to complete the act of adherence. However, she will not be a member of ICNAF until "a note of adherence" is received by the ICNAF Depositary Government, the United States. The note is expected in the near future.

Romania purchased 2 large factory stern trawlers from Japan in 1963 and began fishing on Georges Bank in 1965. In 1966, one stern trawler operated off southeastern Georges Bank from June through early October (4½ months).



## Denmark and Norway Study Mutual Landing Rights

The Norwegian Fisheries Department is considering the question of reciprocal landing

rights between Denmark and Norway and has arranged meetings with Norwegian fisheries associations to discuss it. No formal approach to Danish authorities has yet been made. ("Vestkysten," Feb. 21, 1967.)



### Talks on Asian Fishery Center Held in Bangkok

The working party to establish the fishery development center in Thailand, designated by the Southeast Asia Economic Development Conference in Tokyo, December 1966, met in Bangkok on March 13, the Japanese Foreign Office announced.

It discussed Japan's proposal to give priority to training in fishery techniques over other programs designed to develop southeast Asia fisheries.

Japan, Thailand, South Vietnam, Indonesia, and Singapore were expected to be represented. The attendance of several other Asian countries, including the Philippines and Malaysia, was doubtful. ("Suisan Keizai Shimbum," March 7, 1967.)



### Fish Meal

#### FEO'S 1966 PRODUCTION AND EXPORTS WENT UP

The exports of member countries of the Fish Meal Exporters' Organization (FEO), which account for about 90 percent of world exports of fish meal, rose from 2,012,000 metric tons in 1965 to 2,148,000 in 1966. The FEO countries are Chile, Angola, Iceland, Norway, Peru, and South Africa/South-West Africa.

Country	Jan. -Dec.	
	1966	1965
. (1,000 Metric Tons) .		
Chile . . . . .	185.9	63.7
Angola . . . . .	53.6	49.2
Iceland . . . . .	172.7	146.2
Norway . . . . .	266.4	268.2
Peru . . . . .	1,304.5	1,260.0
So. Africa (including S.-W. Africa) . .	165.6	224.9
Total . . . . .	2,148.7	2,012.2

The 1966 production of FEO countries was:

Country	Dec.		Jan.-Dec.	
	1966	1965	1966	1965
. . . . (1,000 Metric Tons). . . .				
Chile . . . . .	3.9	15.9	194.2	70.3
Angola . . . . .	5.0	7.1	54.7	47.7
Iceland . . . . .	18.6	20.7	181.8	172.1
Norway . . . . .	2.1	4.2	421.7	309.2
Peru . . . . .	187.3	213.8	1,470.5	1,282.0
So. Africa (including S.-W. Africa) . . . .	1.7	1.2	257.6	272.0
Total . . . . .	218.6	262.9	2,580.5	2,153.3



### Convention Drafted on North Atlantic Fisheries Conduct

Representatives of 18 countries that fish the North Atlantic (the U. S., Canada, and 16 European nations) have adopted and referred to their governments for approval a Convention on the Conduct of Fishing Operations in the North Atlantic. The 18 have participated in a Fisheries Policies Conference, which met in London 4 times starting in 1965.

The Convention establishes an international code of conduct for fishing vessels and ancillary craft. It is designed to increase safety at sea, particularly on international fishing grounds, and to reduce risk of damage to boats and fishing gear when vessels using different fishing methods operate close to each other.

It contains provisions for marking vessels to ensure identification at sea. It establishes uniform supplementary light signals. It sets up uniform methods of marking nets and other gear in the sea--and a code of good conduct on fishing grounds. Further, the Convention provides conciliation procedure to facilitate settlement of small claims arising out of gear damage involving fishermen of different nations; also, an inspection system whereby authorized officers from participating countries will be able to board and inspect fishing vessels in certain circumstances for possible violations of rules or damage. It will be possible for certain countries to "opt out" of the boarding provisions, but other aspects of the inspection system--e.g., observation and reporting of violations to the authorities of the fishing vessel's flag state--will apply uniformly to all.

The Convention itself will be open for signature in London June 1-November 30, 1967. Then it will be subject to ratification by the U. S. upon advice and consent of the Senate.

#### The 18 Conference Countries

The countries represented were: Belgium, Canada, Denmark, France, Federal Republic of Germany, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Poland, Portugal, Spain, Sweden, USSR, United Kingdom, and the U. S.

The conference stemmed from the European Fisheries Conference of 1963/64. A resolution was passed then that the United Kingdom convene a technical conference of all countries in the North-East Atlantic fisheries to draft a modern code of fishing conduct. It also was resolved to invite representatives of the U. S. and Canada to attend so that extension of convention provisions to the North-West Atlantic fisheries might be considered. The Convention will cover the area off the coasts of Canada and the U. S. as far south as Cape Hatteras, where many nations fish.

Representatives of State and Interior Department and the U. S. Coast Guard met several times with representatives of fishermen along the Atlantic coast to prepare for negotiating the Convention.

The U. S. delegation consisted of John T. Gharrett, Regional Director, BCF, Gloucester, Mass., Chairman, and Raymund T. Yingling, State Department, Vice-Chairman. William L. Sullivan Jr. of State was a delegation member. Lt. Comdr. C. J. Blondin, U.S. Coast Guard, and John B. Skerry, BCF, were advisers. (U. S. Department of State, March 21, 1967.)



### Inter-American Tropical Tuna Commission

RECOMMENDS 84,500-TON  
YELLOWFIN QUOTA

On April 6, the Inter-American Tropical Tuna Commission recommended that nations harvesting yellowfin tuna in the eastern Pacific set up a catch limit (quota) of 84,500 short tons for calendar year 1967.



### GATT Reports on European Market for Shrimp

The GATT International Trade Centre, designed to help developing nations promote their export trade, has released a study of "Major Markets for Shrimp and Prawns in Western Europe." GATT is the General Agreement on Tariffs and Trade. The study is available in English, French, and Spanish editions from the Information and Library Service, GATT secretariat, Villa Le Bocage, Palais des Nations, 1211 Geneva 10; price US\$5.00.

The study stresses that continued expansion of U. S. demand is crucial to existing shrimp industries of developing countries; also, many of these countries have abundant shrimp stocks, and they must realize their export potential by stimulating demand in high-income European markets. The GATT analysis of selected European markets aims to acquaint the shrimp industry of the developing countries with recent developments in production, consumption, trade, prices, pattern of marketing and distribution channels in the United Kingdom, France, West Germany, and Switzerland.

#### Reports Revolutionary Changes

The report focuses on revolutionary changes in food distribution, consumption, and the remarkable advance of frozen foods. It encourages the promotion of seafood specialties, such as shrimp and prawn. It deals with such critical aspects of shrimp marketing as standards of sanitation, quality control, and improved methods of production.

The study contains conventional market indicators to help processors/exporters in developing countries pursue trading opportunities that exist or may develop. And it suggests, based on the U. S. shrimp bonanza, joint action through a European Shrimp Council to promote shrimp consumption. (GATT, Mar. 16, 1967.)



# FOREIGN

## CANADA

### 1966 LANDINGS AND VALUE ROSE

Canadian fishery landings (including Newfoundland) totaled 2.5 billion pounds in 1966 with an exvessel value of C\$153 million, as against 2.3 billion pounds at C\$142 million in 1965. Over half the 1966 value was accounted for by three species: salmon, cod, and lobster.

Canadian Landings of Principal Species, 1965-1966				
Species	1966	1965	1966	1965
	Landings		Value	
	.. (1,000 Lbs.) ..		.. (1,000 C\$) ..	
<b>Atlantic Coast:</b>				
Cod . . . . .	561,201	575,439	24,654	23,641
Haddock . . . . .	113,106	92,579	8,040	6,045
Pollock . . . . .	34,589	51,456	1,379	1,869
Flounder and sole	232,312	201,647	7,707	6,462
Herring . . . . .	550,835	405,460	6,215	4,249
Swordfish . . . . .	6,890	7,807	2,976	3,254
Lobsters . . . . .	37,210	40,524	20,827	26,636
Scallops . . . . .	18,259	19,709	7,454	10,847
<b>Pacific Coast:</b>				
Halibut . . . . .	31,470	32,973	11,282	11,112
Herring . . . . .	305,783	444,063	5,570	6,232
Salmon . . . . .	153,237	90,192	32,551	25,958

The 1966 season was marked by a good salmon catch in British Columbia and the buildup of the Atlantic herring fishery. On the other hand, Pacific herring landings were down sharply. Lobster landings also were down. East Coast groundfish landings of 1.2 million pounds were up about 9 percent from 1965 due to heavier landings of ocean perch, haddock, and flounder. ("Monthly Review of Canadian Fishery Statistics.")

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### SURVEYS MANPOWER OF DEEPSEA FISHERY

Canada's Department of Fisheries is conducting a manpower survey of the deepsea fishery off the Atlantic Coast "to obtain essential information about offshore fishermen, their training for their occupation, and to determine the general attitude of fishermen toward their livelihood." The study is being carried out by the Department's Economics Services to provide answers to questions asked by industry, the Federal-Provincial

Atlantic Fisheries Committee, and other agencies.

The confidential economic and sociological study includes the manpower situation of vessel owners and fish-processing companies. It focuses on vessels of over 100 gross tons. It will produce data on categories of labor on offshore boats and shore plants, their skills and how they learned them, and the future needs for fishermen and plant workers and the training they will need. A major survey purpose is to get the necessary information to project requirements to 1975.

### Questions for Owners and Workers

Two questionnaires are being used. One is for vessel (or plant) owners and operators, the other for individual fishermen. Crewmen are asked about work and life at sea, the types of boats or jobs they prefer, and their years of experience.

Vessel and plant operators are asked more technical questions about requirements at sea and ashore--e.g., incentive measures to encourage recruitment and hold on to good personnel. They can comment generally on offshore fisheries and their problems.

The Department of Fisheries points out that the survey seeks solely to assess properly the needs of the offshore industry. To aid those in the industry, it says, it needs to know the manpower and training requirements for today and for the future. ("Fisheries of Canada," March 1967.)

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### WEST COAST HERRING MEAL OUTPUT DECLINES IN 1966/1967

British Columbia herring meal production for the 1966/67 season was only 23,356 short tons--down 27 percent from 1965/66 and 46 percent from 1964/65. An official of the Canadian Federal Department of Fisheries blamed "environmental" factors, not overfishing, for the herring catch decline. He also discounted the effects on herring of Soviet fishing off British Columbia--only for Pacific ocean perch.

## Canada (Contd.):

In January 1967, some British Columbia herring grounds were closed for the season to protect spawning herring. Then, on Feb. 5, a 2-week ban on all herring fishing was imposed. The closure was supported by both labor and management associations. They also called for an increase in the net mesh to 1½ inches over a 5-year period. (U. S. Consul, Vancouver, Feb. 14, 1967, and Canadian Department of Fisheries, Mar. 9, 1967.)

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SCOTTISH SEINE SCORES HIGH  
IN FISHING TEST

The advantages of Scottish seine-netting over other methods for catching certain groundfish were demonstrated in Atlantic coastal waters during the winter by the "Guiding Star." Many fishermen are convinced. One vessel, designed exclusively for this technique, is under construction.

The Scottish vessel (and crew) was chartered last October for a year by the Industrial Development Service of the Canadian Federal Department of Fisheries.

The first 5 months were very successful, particularly off Nova Scotia. Fishing on the same grounds as the Danish-type seiners of the Atlantic Provinces, the Guiding Star repeatedly caught twice, sometimes 3 times, as much as the Canadian vessels. On one good day, in 5 tows off Cheticamp, Nova Scotia, she landed 19,000 pounds of fish--mostly cod, haddock, and flounder. Before going to Nova Scotia, she took so many fish off Newfoundland in one tow that the net burst.

## Scottish Technique Effective

One advantage of Scottish seine-netting is the relatively low horsepower needed. The 73-foot Guiding Star is powered by a 152-hp. diesel engine. Her success demonstrates that many vessels, such as long-liners with insufficient power for trawling, can use the Scottish technique effectively and economically.

The Guiding Star carries two sizes of nets, the 420 and 520 Vinge trawls, which have a much higher vertical opening than

conventional nets now used in Canada. They are the main reason for the large hauls of demersal fish. The deck layout and machinery allow fast hauling and shooting. Electronic equipment is used to locate and remain with schools of fish on suitable bottom.

The vessel is now moving from port to port along the Nova Scotia coast, from Cheticamp to the western part. Later, the spring and summer 1967, she will fish from New Brunswick, Prince Edward Island, Quebec, and then return to Newfoundland. (Canadian Department of Fisheries, Ottawa, March 7, 1967.)

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EXTENDS FISHERIES INSURANCE  
PROGRAM TO ONTARIO

The Canadian Federal program that offers protection to fishermen for partial or total loss of vessels, fixed gear, and shore installations became effective in Ontario on April 1. Known as the Fishermen's Indemnity Plan, it already covers the Maritimes, Newfoundland, Quebec, and British Columbia.

Under the plan, Ontario owners of vessels, fixed fishing gear (traps, etc.), and shore installations having an appraised value of up to \$15,000 may obtain insurance coverage with a premium of one percent of the appraised value. Losses due to storms, ice, fire, and other recognized perils are covered. The owner recovers 60 percent of the appraised value for total loss, and a lesser indemnity for partial loss. (Canadian Department of Fisheries, Ottawa, March 29, 1967.)

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FISHERIES TRADE MISSION  
VISITS EASTERN EUROPE

A 4-man Canadian trade mission started a two-week tour of Europe on February 20 seeking markets for fish, according to a Canadian newspaper. The mission was particularly interested in selling frozen fillets and blocks. Its itinerary included Czechoslovakia, Romania, Hungary, and Yugoslavia. (U. S. Consul, St. John's, Feb. 27, 1967.)



## LATIN AMERICA

### Peru

#### SETS QUARTERLY EXPORT QUOTAS OF FISH MEAL

Peruvian export allocations of fish meal for the second quarter of 1967 are:

Country	Allocation
	Metric Tons
United States . . . . .	No limit
Western Europe (except West Germany) . . . . .	175,000
Eastern Europe . . . . .	65,000
West Germany . . . . .	60,000
Latin America . . . . .	32,000
Asia-Australia . . . . .	20,000
Total . . . . .	352,000

Fish meal prices on world markets continue to decline. On March 21, Peruvian fish meal, f.o.b. Callao, was US\$100 a metric ton for shipments to U. S. ports, and US\$112 a ton for shipments to European ports. (In late February, prices were \$115 or less for U. S. ports and \$120 a ton for European ports.) Production during the 1966/67 fishing season is expected to reach 1.6 million metric tons, despite a 6-week strike and a 4-week closed season (February 15-March 14). The Government is expected to announce soon the allowable catch of anchovy for the season--it may exceed 8 million tons--and the closure date (expected in June). (U. S. Embassy, Lima, March 23, 1967.)

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#### PRESIDENT MEETS WITH FISH MEAL PRODUCERS

Over 100 fish meal producers met with President Belaunde on March 16, 1967, to express their views on the "crisis" of the fish reduction industry. The President recognized its gravity and promised an exhaustive study. Five members of the Interministerial Commission (Ministers of Agriculture, Development, Finance, Labor, and Navy) attended. As their part of the bargain, the producers reportedly agreed not to close their plants and "lock out" the workers, as the local press headlined.

The Federation of Peruvian Fishermen, a trade union, said that it would ask the Gov-

ernment to take over operation of the plants, if the industry close them. It denied that high wages were a cause of the crisis. According to a spokesman of the National Fisheries Society, the trade association of producers, 35 plants out of 154 have gone bankrupt already because of high costs and excessive taxes. There are reputed to be \$13 of "hidden taxes" per ton, which producers object to strongly. The spokesman said that if the crisis was not solved quickly, the remaining plants would also go bankrupt or fall into foreign hands, "as is occurring already."

#### Meeting Resulted from Fisheries Society Proposals

The meeting with the President resulted from a heated assembly of the National Fisheries Society on March 14. Several motions were passed over the protests of a stubborn minority. The motions: (1) request the Government to close all plants temporarily; (2) obtain recognition by the Government that the industry is suffering a grave crisis; (3) ask to see President Belaunde to explain the industry's position; (4) obtain equitable tax treatment for the industry; and (5) continue talks with the Interministerial Commission and the congressional committee that also are studying the situation.

Fishing, suspended for a month at the recommendation of the "Instituto del Mar" to allow the "peladilla" to mature into anchoveta, reopened March 15. The plants had been reported processing up to 80 percent "peladilla," or immature fish, which substantially increases costs. Catching or processing "peladilla" is prohibited by a 1958 supreme decree which, apparently, has not been enforced. In any case, stocks of fish meal were reported to exceed 550,000 metric tons as of mid-March, while prices continued to drop. (U. S. Embassy, Lima, March 17, 1967.)



### Mexico

#### RELEASES FIRST 1966 FISHERIES DATA

The 1966 production of the Mexican fishing industry continued the slow but steady increase of the last several years, preliminary data of the Secretariat of Industry and Commerce reveal.

## Mexico (Contd.):

Landings of edible fish and shellfish reached a record 171,504 metric tons, compared to the previous high of 161,474 tons in 1965. All weights are "as landed"; i.e., heads-on, heads-off, cleaned, round. This is an increase of 6.2 percent, somewhat greater than previous increases.

Most important species of food fish showed good gains. Shrimp, by far the most important, reversed its recent downward trend. Landings were 39,743 metric tons, 11.7 percent better than 1965--but that was the poorest year since 1958. The anchovy is rapidly becoming an important species, and the 1966 catch of 13,748 tons is a record. Sierra mackerel, giant sea bass, and spiny lobster catches were records. The No. 2 species, oyster, reached a production of 19,921 tons, down 12.7 percent from the 1965 record of 22,818 tons. Sardines, mackerel, and abalone catches also declined.

## Record Production of Industrial Fishery Items

Production of industrial fishery items was also at an all-time high. The harvest of giant kelp returned to the 1963-64 level after a slump in 1965. Production in 1966 was 22,211 metric tons, up 37.4 percent from 1965's low of 16,169 tons.

The slowly growing fish meal industry broke all records with a production of 9,602 metric tons, up 35.2 percent from 1965's record of 7,104 tons.

The combination of a small increase in shrimp catch and a large advance in prices pushed the value of 1966 shrimp to 656.8 million pesos (\$52.5 million), the highest level since 1963 and up 19.1 percent over 1965. As a result, shrimp resumed fourth place among all exports--overtook corn and trailing only cotton, coffee, and sugar. (U. S. Embassy, Mexico, March 15, 1967)

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## 1966 CATCH ROSE IN YUCATAN AND QUINTANA ROO

In 1966, the fishery catch of the Mexican State of Yucatan and Territory of Quintana Roo increased significantly--particularly of such valuable species as red snapper, group-

er, and spiny lobster. Catches of principal species were:

	Yucatan	Quintana Roo
	. . . . (Metric Tons) . . . .	
Grouper . . . .	7,642.0	92.5
Red snapper .	947.4	-
Spiny lobster .	-	56.5
Other . . . . .	2,469.1	448.5
Total . . . .	11,058.5	597.5

In Yucatan, the 1966 catch of red snapper more than doubled 1965's 467 metric tons. The increase resulted from an addition of 17 vessels (55-67 feet long) in the fleet fishing especially for snapper.

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## NEW SEAFOOD FREEZING PLANT OPENS

Refrigeradora de Tepepan, S.A. de C.V. recently opened a freezing plant and branch office at Ciudad Juarez, Chihuahua, to distribute Pacific seafood. This company is the Federal Government's seafood freezing agency and forms part of the plans to increase fishing and fish consumption in Mexico. It is a trust fund administered by the Cooperative Development Bank.

The plant's opening indicates the Government campaign is serious, and that the experience gained in the border town may be useful to similar branches elsewhere in Mexico. The address: Callejon Progreso 108. ("Mexico Industrial," March 6, 1967.)

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## SPINY LOBSTER SEASON BREAKS RECORD

The 1966/67 lobster season in Baja California that ended March 15 broke all records, according to preliminary figures of the Ensenada office, Mexican Bureau of Fisheries.

Nine of the 10 producing cooperative fishermen's associations reported significant increases in catches over last season's banner output. Also, losses due to mortality during handling and shipping decreased. The single licensed processing plant at Ensenada packed and exported 2,652,667 pounds of spiny lobsters during the 1966/67 season, compared to 2,014,131 pounds of the previous year. The total 1966/67 catch was 2,788,574 pounds, of which 134,542 pounds could not be

## Mexico (Contd.):

packed because of mortality (only lobsters that arrive at the plant alive may be cooked.

Nearly All Exported to U. S.

Virtually all production is exported to the U. S. Fishery authorities believe catches could be increased in Baja California by introducing deep-water fishing gear and new techniques. Although Baja California has had nearly a monopoly on Mexican spiny lobster production, the Gulf and Caribbean coasts of the Yucatan Peninsula have produced greatly increased catches in the last 2 or 3 years. Also, private and government groups have begun to explore along the Pacific Coast south of the Gulf of California, an area previously exploited only slightly for the local market. Altogether, Mexico may become increasingly important as a supplier of spiny lobsters to the U. S. market. (U. S. Embassy, Mexico, March 30, 1967.)



## Brazil

### HAS NEW BASIC FISHING LAW

Brazil's new basic fishing law (No. 221, February 28) revokes the restrictive 1938 Fishing Code. It gives the green light to foreign investors to develop the fishing industry.

Two articles have major significance for potential investors and are expected to stimulate strongly the development of the industry: Article 6--removes the restriction on foreign vessel operations in Brazilian waters if they are properly registered and authorized; Article 8--extends ownership registration of fishing vessels (formerly limited to Brazilians) to companies organized in Brazil, if they comply with registration requirements. However, in accordance with the Brazilian Constitution, the new law requires that two-thirds of the crews must continue to be Brazilian.

Development of a modern well-equipped fleet should be accelerated by the measure's tax exemptions. Firms with fishery projects approved by SUDEPE (Superintendency for Development of Fisheries) are exempt from the import tax and the Tax on Industrialization of Products up to fiscal 1972 on imports of fishing vessels and equipment not available in Brazil. Fiscal year is equivalent to

calendar year. Manufacturers of fishing equipment also are exempted.

Also, exemption from federal taxes or charges is granted to 1972 on fish taken in Brazilian waters and intended for domestic use or export.

### Provides Incentives to Invest

Three kinds of investment incentives are provided: 1) This applies to fishing companies with plans approved by SUDEPE. They will receive 100-percent exemption from income taxes and surtaxes up to 1972--provided that the exemption value is incorporated into the company's capital. Stocks, quotas, and shares of capital received from this capitalization also are exempt from income tax.

2) Applies to any corporate body registered in Brazil. Brazilian firms may deduct from income tax and surtaxes up to 1972 a maximum of 25 percent for investment in fisheries projects that SUDEPE declares useful to industry development. Such projects include capture and processing of fish--and their transportation and marketing. Companies receiving tax benefits must invest one-third of it. The deductions may be applied to more than one project, but they may not exceed in one year 50 percent of the firm's income tax and surtaxes.

3) Applies to expenses incurred in SUDEPE-approved resource research and to donations to nonprofit institutions for conducting SUDEPE-approved programs of technical education and resources research. Firms may deduct these operational expenses; individuals may deduct them up to 50 percent of gross income.

### Seeks More Efficient Industry

The law aims to make the existing industry more efficient. The government will stimulate the creation of cooperatives in fishing villages, Fishermen's Colonies, and fish distribution centers in principal cities on the coast or on rivers. Fishermen's Colonies and other organizations also are to be reorganized and regulated by the government.

Regulations to implement the law are expected to be issued within a few months. (U. S. Embassy, Rio de Janeiro, March 14, 1967.)





## Argentina

### REACTS TO SOVIET FISHING ON PATAGONIAN SHELF

In early 1966, the Soviet Union established a Fishing Fleet Command at Havana, Cuba, to exploit the southwest Atlantic fishing grounds. During the late summer, many Soviet vessels from the Northwest Atlantic were seen moving southward: first into the Caribbean and the Gulf of Mexico and, last, along the Brazilian coast towards the tip of South America.

On Sept. 30, 1966, the Argentine Navy stopped and searched two Soviet and one East German fishing vessels off Buenos Aires Province. The vessels were not detained; the reasons for the boarding are not known. The East German vessel was probably the research ship "Ernest Haeckel." Other Soviet vessels were sighted by the Argentines in mid-October and early November 1966, but no action was taken.

On Nov. 18, 1966, a reporter for the Bahia Blanca (city south of Buenos Aires) newspaper "La Nueva Provincia" flew with a Navy pilot on surveillance from Nueva Espora Naval Air Base. Twenty-two Soviet vessels were sighted and photographed. They were in 2 groups: one of 5 vessels at 40° S. and 61°40' W., or about 25 miles off Argentina's coast just NNE. of Isla De Los Riachos. One vessel was a mothership "larger than the biggest Argentine destroyers." The second group of 15 vessels was 30 to 80 miles off the city of Bahia San Blas. The San Blas region is one of the most important fishing centers. Most Soviet vessels in that group were identified as large stern factory trawlers of the "Maiakovskii" or "Tropik" classes. Two other Soviet vessels were sighted near the two main groups. No Soviet vessel was sighted within 12 miles of the coast.

#### Argentina Protests

Soon afterward, the Argentine Ministry of Foreign Affairs protested to Soviet Ambassador Volskii. The Under Secretary of Foreign Affairs, J. A. Mazzinghi, later told the press that he had informed the Ambassador of the "Argentine position concerning the fishing problem," which directly affects the nation's economy.

In early Dec. 1966, military planes and private vessels sighted Soviet vessels off Necochea, the Valdez Peninsula, and else-

where. The sightings were extensively reported in the press.

Finally, Argentina's fishing industry became concerned. On Dec. 12, 1966, the press reported: (1) fishermen accused the Soviets of using explosives in mass killings of fish. (2) Cuban and Yugoslav vessels and a "large" Japanese fleet were in the area. (3) Mar del Plata fishermen threatened to strike to protest the government's "lack of concern" over foreign fishing. (4) The fishing industry feared depletion of resources within 60 days and wanted extension of territorial limits to 200 miles.

The Japanese fleet probably consisted of about 70 tuna vessels, which had been reported fishing off Brazil in mid-December. The Yugoslavs recently began tuna fishing with 3 vessels in the southeastern Atlantic and may have entered the southwestern Atlantic. Cubans, who recently purchased 20 tuna vessels from Spain, reportedly planned to use them in the south Atlantic. It is doubtful that the Soviet fishermen would use explosives for fishing but it is conceivable that some Soviet or East German research vessel may have used explosive charges in its research.

The U. S. Embassy at Buenos Aires reported, Jan. 4, 1967, that Argentina had adopted a 200-mile maritime jurisdiction.

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### SOVIET RESEARCH SUB REPORTED OFF ARGENTINA

A "mysterious" submarine, allegedly Soviet, was reported in Argentine waters on March 11, 1967. It was on the Patagonian Shelf, where Soviet fishing fleets were recently sighted. One Argentine interpretation for the sub's presence was that it will defend the Soviet fleet (about 48 vessels) from possible attack.

Most likely, however, it is the research submarine "Severianka," of the Polar Scientific Research Institute for Fisheries and Oceanography (PINRO) of Murmansk. A few months ago, it was reported off South-West Africa engaged in fishery research. It is likely she crossed the Atlantic to operate off Argentina.

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Argentina (Contd.):

#### HAS NEW EXPORT TAX LAW

Argentine Law No. 17,198, March 13, 1967, establishes ad valorem (in proportion to the value) export taxes for most major export commodities. All of the following have a 16 percent rate: fish and shellfish, without exception, and including fish and marine mammal fats and oils (including refined); whale sperm and sperm of other cetaceae (spermaceti) in the rough state, pressed or refined, including artificially colored; products prepared from fish and shellfish; shellfish and fish meals and powders. (U. S. Embassy, Buenos Aires, April 12, 1967.)



#### Cuba

##### FISHES OFF ARGENTINA

On Sept. 10, 1966, the Cuban stern trawler "Biajaiba" left Havana for a 71-day fishing trip off the South American coasts. The 1,113-gross-ton vessel, built at Vigo, Spain, traveled 6,000 miles to 75 miles off Argentina's coast between Quequen and Punta San Blas (40°20' S.).

The live-weight catch was 648 metric tons, 621 tons of which (95.8 percent) were southwest Atlantic hake. About 481 tons (77.5 percent) of the hake consisted of fish averaging 35 centimeters (almost 14 inches). The rest of the live-weight catch (27 tons) was large squid and an unidentified species (25 cm, or almost 10 inches long called in Spanish "salema").

The trawler fished only 26 days (Oct. 14 to Nov. 9); the rest of the time (45 days) was spent traveling to and from the grounds. The average daily catch was about 25 metric tons or about 455 kilograms (1,000 pounds) per crew member of 55 (9 Soviets, including the captain, Ivan Zainukov, and 46 Cubans). The finished product was 450 metric tons of frozen fish. Since the vessel's freezing equip-

ment could not process more than 17.3 metric tons of raw fish a day, only the best fish were frozen. (The rest, or close to 200 tons, was probably discarded.)

The hake were caught in waters 60-75 meters (197-246 feet) deep and having a temperature of from 10° to 11° C. (50° to 51.8° F.). The Biajaiba was serviced by the Soviet fleet off Argentina. ("Granma," Dec. 25, 1966.)

Another Cuban vessel, the "Guasa" (also built in Spain and Biajaiba's sistership (also was reported fishing for hake in the same southwest Atlantic area. Soviet hake operations in that area are probably similar. Many of Biajaiba's fishermen are extremely young (17 and up); the third officer, a veteran of 5 years in the Cuban fishing fleet, is only 18.



#### Guatemala

##### CATCHING SHRIMP IS MAJOR PART OF FISHING INDUSTRY

A new BCF leaflet states that Guatemala has a coastline of 402 kilometers--255 on the Pacific Ocean, the remainder on the Atlantic. The major share of her fishing industry is devoted to catching shrimp, although some finfish and other crustaceans and mollusks are caught for commercial use. At the present time, shrimp fishermen are forced to throw back roughly 5-10 pounds of fish for each pound of shrimp caught, according to Government estimates, because there are no facilities for processing the fish. More fish processing facilities must be constructed and a larger fishing fleet acquired, the latter presumably by private investment. The leaflet includes tables on recent and projected fish catches, exports, and local consumption.

Note: FFL-111--"Exploitation of Marine Resources in Guatemala," is available free from the Branch of Foreign Fisheries, BCF, Room 8015, U. S. Department of the Interior, Washington, D. C. 20240.



## EUROPE

### USSR

#### REPORTS 1966 PACIFIC RESEARCH AND 1967 PLANS

In early March 1967, the Scientific Council of the Pacific Scientific Research Institute for Fisheries and Oceanography (TINRO) held its annual session. Thirty-eight scientists from TINRO and its 4 affiliated Institutes reported on 1966 fishery research and plans for 1967 scientific investigations. Also present were delegates from the All-Union (Federal) Scientific Research Institute for Fisheries and Oceanography (VNIRO) in Moscow, biologists and technologists from the Vladivostok University, and scientists from the Vladivostok Branch of the USSR Academy of Sciences.

In 1966, 26 of TINRO's fleet of over 50 fishery research vessels were engaged in distant-water research spanning the entire Northern Pacific and reaching as far south as New Zealand and Australia. Fisheries research was concentrated in the Japan, Okhotsk, and Bering Seas; the North Pacific Ocean off the Canadian, U. S., and Mexican shores; the New Zealand Plateau and the Great Australian Bight with adjacent areas; and the Indian Ocean. There also were some studies of the fishery resources off southeast Latin America. TINRO employs over 300 scientists.

TINRO's discoveries of new fishery resources made it possible for the Soviet Far Eastern Fishing Fleet to expand operations into the waters off British Columbia, Oregon, and Washington, Baja California, and into the southern Pacific and Indian Ocean. Off the U. S. Northwest Pacific coast alone, Soviet fishermen landed over 130,000 metric tons of Pacific hake and about 10,000 tons of Pacific ocean perch and other rockfish.

#### Problems for Technologists

In 1966, catches of previously not-fished-for species posed many problems to TINRO's fishery technologists. New methods had to be worked out to process Pacific hake, tuna, swordfish, and other pelagic species. In 1967, the Far Eastern technologists are again faced with the task of developing processing techniques for new species of fish the Soviets expect to catch--North American and Southeastern Pacific types of mackerel-pike (saury), anchovy, shark, mackerel, and others.

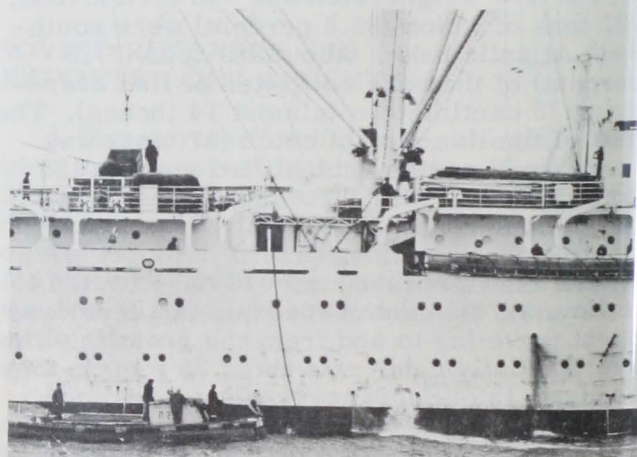
To increase landings, the Fishing Gear Laboratory of TINRO developed a new 25-meter (81-foot) wide trawl. The standard Soviet trawl is 31.2 meters, or 101 feet, wide. The new trawl was used experimentally in midwater trawling by the large stern trawlers "Mgachi" and "Baikal" with excellent results. Catches were 2 to 3 times greater than those made with the standard trawl. There was no difference in catches when new and standard trawls were used for bottom fishing.

Other matters discussed at the annual session were Pacific resources of squids, mussels, and scallops; marine algae; the effect of tree-felling on natural reproduction of salmon; introduction of purse seining in Pacific herring fishing; potential for future increased landings from the Pacific and Indian Oceans.

\* \* \*

#### FISH AND CAN SHRIMP OFF ALASKA'S SHUMAGIN ISLANDS

During a fisheries patrol by the U.S. Coast Guard cutter "Confidence," on December 30, 1966, a cutter officer and a BCF Resource Management agent visited the Soviet floating shrimp cannery "Vasilii Putintsev" anchored off Nagai Island in the Shumagin Islands.



The 12,700-gross-ton Soviet floating cannery Vasilii Putintsev is used to process small shrimp landed off Shumagin Islands by about 20 medium (700 gross tons) freezer trawlers, class SRTM-Maiak. (Photo: James H. Branson, BCF Resource Management Agent)

The Putintsev had arrived off Alaska that month to service 20 medium freezer trawlers shrimping off the Shumagins. She is like 14 other "Zakharov"-class canning factory ships operating in the Pacific--12,700 gross tons,

SSR (Contd.):

20 feet long, sea endurance of 9-10 months, and a crew of over 600 (500 are processing workers). The Zakharov-class vessels are used primarily in North Pacific king crab, saury, and herring fisheries.

The captain of the Soviet cannery told the Americans that she would remain in the Shumagin area until early March 1967, then enter the king crab fishery off Kamchatka.

#### How Shrimp Are Handled

During a tour of the Putintsev, the Americans observed:

The shrimp are hoisted aboard from medium freezer trawlers in large, apparently wooden containers, about 4 by 4 feet. There is a way of emptying these boxes through the bottom or lower side without tipping them.

Then the shrimp are placed in 10-kilogram mesh bags, which go through a continuous blancher on a conveyor belt and receive a 5-minute cook. The bags of shrimp are then routed down another continuous belt into the main deck compartment, where the shrimp are dumped and placed on one of many large stainless steel tables for hand picking. Only pink shrimp (*P. borealis*) were seen on the peeling tables. There was hardly any "trash" mixed with the shrimp--probably because they had been sorted at least once between receiving and bagging.

This main-deck working compartment is 20 feet long and the ship's full width, except for rather narrow weather deck spaces on either side. The workers were lined shoulder to shoulder at the tables; there must have been 100-150 people hand peeling shrimp.

The shrimp meats are peeled into large square metal pans. When a pan is filled, it is taken to an elevator at the after end of this compartment and sent down to the next lower deck.

#### Shrimp Meats Washed

The pans are dumped on long tables with conveyor belts running down the middle. The meats are washed with sea water and the odds and ends of shell, etc., removed by other workers. The washed meats are put in small plastic trays. These trays are then weighed

and the exact amount of shrimp needed to fill a can added or subtracted. Then they are passed to other workers, who place the meats in parchment-lined quarter-pound flat cans. The cans are routed through the usual canning machinery (all Japanese made), and re-torted. When taken from retorts, canned shrimp are packed in stout, 72-can wooden cases.

Most of this fishery seems to take place at night. Many boats tied up during the day are waiting to deliver to the factoryship.

\* \* \*

#### INCREASES SHRIMP CATCHES OFF ALASKA

Soviet catches of shrimp in the Shumagin Islands area in the Gulf of Alaska during January-February 1967 were much greater than during the same period last year. About 20 medium trawlers had caught an estimated 5,000 metric tons by the end of February. In early February, the fleet caught on the average up to 120 tons a day--an average daily catch of 6 tons (13,000 pounds) per trawler. Shrimp are delivered to the "Zakharov-" class cannery factoryship "Vasilii Putintsev" for canning, presumably for domestic markets.

In 1966, the Shumagin Islands area yielded 10,600 metric tons of shrimp; 6,517 tons were exported to Japan.

\* \* \*

#### CONDUCTS FISHERY RESEARCH OFF WESTERN SOUTH AMERICA

In early February 1967, the Pacific Scientific Institute for Fisheries and Oceanography (TINRO) reportedly sent 2 fishery research vessels on an exploratory cruise off Western South America. During a 6-month research period, TINRO scientists will study the commercial fishing potential of Southern Pacific pike-mackerel (saury).

The development of saury fishing in the southeastern Pacific off Chile and Peru during winter months would make it possible for the Soviets to continue using the specialized vessels that fish for saury in the northwestern Pacific (off Japan and Kuril Islands) during summer months.

\* \* \*

USSR (Contd.):

## HAS FISHING NET FACTORIES

The Soviet fishing-net plant at Klaipeda in Lithuania is scheduled to produce about 100,000 nets this year. Only 20 percent of them will be made of synthetic materials; the rest of cotton. Most of the nets are probably drift nets.

Also, the plant will produce 1,200 trawl nets and 10 purse seines, the latter 610 meters (1,830 feet) long, 120 meters high and weighing 9-12 metric tons (depending on materials used). The nets are used primarily by Lithuanian fishermen, but some are exported to Cuba, Guinea, and Yemen.

Another Soviet net factory, located at Nakhodka in the Far East, manufactured about 700 trawl nets, mostly synthetic, during 1966.

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"OKEANOLOGIIA" REVIEWS  
SECOND INTERNATIONAL  
OCEANOGRAPHIC CONGRESS

The November-December 1966 issue of the Soviet oceanographic journal "Okeanologia" contains 6 articles by Soviet authors reviewing the Second International Oceanographic Congress held in Moscow in June 1966. The fields reviewed are: physical oceanography, regional oceanography, marine chemistry, biological oceanography, tectonics, and geomorphology. The Soviet authors are: Belousov, Kitaigorodskii, Burkov, Chigirin Beklemishev, et al., and Zhivago.



## Poland

WILL BUILD OCEANOGRAPHIC  
VESSELS FOR USSR

The Soviets contracted with a Szczecin shipyard on Nov. 2, 1966, for the delivery of 9 oceanographic research vessels of the B-88 class. The 2,500-gross-ton vessels will be 97 meters (318 feet) long, 14 meters (46 feet) wide, and have a diesel motor of 2,400 hp. ("Budownictwo Okretowe," Jan. 1967.)



## Norway

OUTLOOK FOR WINTER  
HERRING FISHERY REPORTED GOOD

A scientist of the Norwegian Institute of Marine Research said in a recent interview that the vessel "Johan Hjort" had taken larger quantities of winter herring on a recent cruise off Norway's West Coast than had been seen for many years. Schools a quarter of a mile long and 100 meters deep were found. If weather continues good, prospects are excellent for winter herring catches exceeding 450,000 metric tons. Fish of the 1959 and 1960 year-classes will be prevalent in the stocks this year, but there will also be fish of the 1961 year-class. The herring caught this year will be only average size. Unfortunately, the younger year-classes are not abundant and the stocks are expected to decline in 1968. This will result from natural conditions, not from the heavy fishing expected. ("Fiskaren," Feb. 8, 1967.)

\* \* \*

CANNERS OF SILD HERRING  
HAD GOOD YEAR IN 1966

Norwegian canners of sild sardines had a good year in 1966. They produced 1.5 million cases, the best pack in recent years. The pack of brisling also was good. Production of small sild in early 1967 should be good because there are sizable frozen stocks in storage.

Despite the large final pack of sild sardines, exports declined in 1966 because of supply shortage early in the year. The decline was partially offset by higher exports of brisling. Canned exports of kippered herring and soft herring roe also rose in 1966.

Exports of Principal Canned Fishery Products, 1965-1966		
Product	1966	1965
	• (Cases of 100 $\frac{1}{4}$ cans) •	
Brisling . . . . .	440,000	391,000
Sild sardine . . . . .	811,000	925,000
Kippered herring . . . . .	265,000	257,000
Soft herring roe . . . . .	84,000	59,000

## U. S. Is Principal Market

The principal market for Norwegian canned fishery products is the U. S., which bought 10,269 metric tons as of November 30, 1966, compared to 10,321 tons in the 1965 period. Shipments to other leading buyers in the first

## Norway (Contd.):

11 months of 1966 (comparative data for 1965 in parentheses) were: United Kingdom 6,788 tons (5,282 tons); Australia 1,678 tons (1,758 tons); South Africa 1,077 tons (1,335 tons); and Canada 942 tons (966 tons). ("Norwegian Cannery Export Journal," Feb. 1967.)



## Iceland

### PRICES FALL AND FOREIGN MARKETS ARE UNCERTAIN

Iceland's 1966 catch was estimated at a record 1,240,000 metric tons: herring, 775,000 tons (763,000 tons in 1965), capelin, 125,000 tons (50,000 tons in 1965), and crustacea (lobster and shrimp) 5,000 tons (same as 1965). More herring and capelin were caught in 1966 because more vessels fished for them.

At the beginning of 1967, there were 184 herring vessels over 100 gross registered tons (GRT). The average size was 193 GRT. Thirty-seven new ones (average size 318 GRT) will be built during 1967. But small vessels (under 100 GRT) decreased from 648 in 1964 to 577 at the beginning of 1967. Of 32 registered trawlers (700 to 1,000 GRT), only 20 are being operated.

### Frozen Fish Production Drops

Frozen fish production was about 85,000 tons in 1966, a 15-percent drop from 1965, when only 19 percent of freezing-plant capacity was used. The 2 largest freezing-plant firms, Federation of Cooperative Societies and Freezing Plants Corporation, account for over 90 percent of total output. They produced an estimated 49,000 tons of frozen cod fillets and blocks in 1966 (55,000 tons in 1965), 22,000 tons of frozen herring (27,000 tons in 1965), and 8,000 tons of animal food (9,000 tons in 1965). About the only encouraging development for the freezing industry in 1966 was the favorable Soviet market. Sales to the USSR were 12,500 tons (9,900 tons in 1965), up 26.3 percent. The U. S. market absorbed 27,200 tons in 1966 against 28,200 tons in 1965, down 3.6 percent.

Fish meal production in 1966 is estimated at 178,000 tons (174,000 tons in 1965). Of this, herring meal was about 135,000 tons, cod meal 19,000 tons, and capelin 19,000 tons; the remaining 5,000 tons were ocean perch and other species.

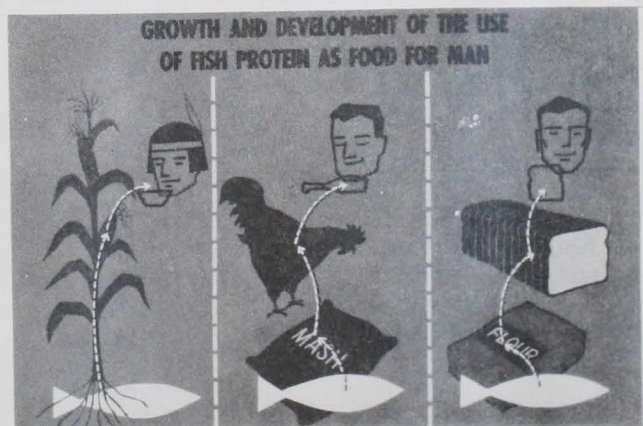
An estimated 107,000 tons of fish oil were produced in 1966--herring oil was 97,000 tons, cod-liver oil just over 6,000 tons, and the remaining 4,000 tons were capelin and whale oil.

### Problems for Industry

The most serious problems facing the fisheries are the fall in prices and the uncertain foreign market for major exports.

The changes in the composition of the catch have produced severe bottlenecks, especially for freezing plants because the biggest share of the cod catch of the small vessels is landed between February and April. This results in great underutilization of capacity in other months. The cutback in fishing by large trawlers has compounded this difficulty. Ground-fish fishermen recently were given more government subsidy for exvessel prices. But these fishermen have asked for more help.

Two recently proposed parliament bills would influence further fisheries developments. One seeks to provide partial compensation for any decreases in world market prices below end-1966 levels. The other bill calls for founding a fisheries council to coordinate the entire industry--and to conduct market research and development for fish products abroad. (U. S. Embassy, Reykjavik, March 16, 1967.)



## Greenland

### CONCERNED OVER LOW PRICES FOR SEAL SKINS AND COD

During the past year, Greenland has faced declining prices for seal skins and market problems for frozen cod fillets. The impact is felt primarily in the hunting districts of Northwest and Eastern Greenland, where prices to the seal hunter have dropped 42 per cent.

Segments of Greenland's native population may face a bleak future if markets for seal skins and frozen cod fillets remain weak--and if cod catches drop, as fishery biologists predict. ("Berlingske Tidende," Feb. 20, 1967.)



## United Kingdom

### WORLD FISHING EXHIBITION OPENS IN JUNE

The British periodical "World Fishing" is sponsoring a World Fishing Exhibition at National Hall, Olympia, London, June 1-7, 1967. It will be opened by Food and Agriculture Organization Director-General B. R. Sen, accompanied by FAO Assistant Director-General (Fisheries) Roy Jackson.

The 1967 Exhibition will feature the latest technological developments in fishing vessel design, marine engines (main and auxiliary), fishing gear, nets, deck machinery, marine electronics and fish-finding equipment, refrigeration, ice-making and processing equipment, and services. Exhibits from 15 countries will be displayed.

#### Vessel Display at Fish Dock

A new feature this year will be the Olympia Fish Dock--a display of stern trawlers, multipurpose vessels, fast lobster boats, and a new fishing catamaran.

On June 2 and 3, a nontechnical shellfisheries meeting will take place at Olympia along with the exhibition. The aim is to show how efficiency in shellfisheries can be improved by better gear and better marketing.

Admission is by invitation ticket only. Requests for tickets and information to: Commercial Exhibitions, Ltd., The Tower, 229-243 Shepherd's Bush Road, Hammersmith, London, W6, England.

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### ISSUES PROGRESS REPORT ON BOXING FISH AT SEA

The British White Fish Authority, sponsor of extended tests of boxing fish in ice at sea aboard a middle- and a distant-water trawler, has issued a 19-page, illustrated progress report. It states: boxing fish at sea, properly done, improves quality; and further improvements are obtained if boxed fish are landed and offered for sale without being disturbed--because this eliminates damage from hooks and shovels and the fish are protected by ice while awaiting sale. Boxing at sea also could facilitate the techniques of transferring fish at sea or of superchilling.

#### Alloy Metal Box Used

A light alloy metal box, easily cleaned, was used in the tests. The box was  $32\frac{3}{4} \times 10\frac{1}{4} \times 15$  inches, internal volume 4,800 cubic inches, and holding about 150 pounds. It was considered important for it to be no deeper than 12 inches to avoid crushing the fish on the bottom--and to have drainage (drain holes were set in side gulleys). Circular pressings force the boxes apart  $\frac{3}{8}$  inch in stowage to prevent pockets of liquid from collecting. The boxes could be nested when empty.

The tests were supervised by the Authority's Industrial Development Unit, Southside, St. Andrew's Dock, Hull, England.

\* \* \*

### FISHERY LOAN INTEREST RATES REVISED

The British White Fish Authority has announced that its rates of interest on loans made from February 4, 1967, will be:

For fishing vessels of not more than 140 feet, new engines, nets and gear: on loans for not more than 5 years,  $7\frac{3}{8}$  percent (decrease  $\frac{1}{4}$  percent); on loans for more than 5 years but not more than 10 years,  $7\frac{1}{4}$  percent (decrease  $\frac{1}{8}$  percent); on loans for more than 10 years but not more than 15 years,  $7\frac{1}{4}$  percent (de-

## United Kingdom (Contd.):

crease  $\frac{1}{8}$  percent); on loans for more than 15 years but not more than 20 years,  $7\frac{1}{4}$  percent (no change).

The rate for processing plants on loans for not more than 20 years was unchanged at  $7\frac{3}{4}$  percent.

The rates on loans made before February 4 were unchanged. ("Fish Trades Gazette," Feb. 11, 1967.)



## Portugal

### TUNA FIRM EXPANDS AT CAPE VERDE ISLANDS

The Portuguese firm that operates cold-storage facilities at Mindelo on Sao Vincente plans to order four 127-foot purse-seiners from a West German firm. Delivery is expected in 1968. The Portuguese Ministry of Finance is expected to guarantee a loan equivalent to US\$2.6 million to finance the purchase. With the new vessels, the firm expects to increase its annual tuna catch from 600 to 8,000 metric tons; most would be sold to foreign canners. The firm also wants to expand Sao Vincente as a base for foreign fleets by increasing its cold-storage capacity.

The company now has 2,500 tons of frozen storage capacity at Mindelo, most of it newly inaugurated. Forty percent of this is currently being rented to Japanese and Panamanian flag tuna vessels using Sao Vincente as their home base and selling their catch largely to U. S. packers. The remaining 60 percent is available to the new Portuguese vessels under construction and to the expansion of rental facilities to foreign fleets.

Should the Portuguese company's experience with the 4 vessels prove financially successful, it will seek more government guarantees to finance the purchase of 6 more purse-seiners. If future experience justifies it, the company may increase the refrigeration capacity of its present plant to 3,500 tons. If Sao Vincente is used more by foreign tuna fleets, the firm may construct a new 3,500-ton refrigerated storage plant on the docks at

Mindelo. The present facilities are located 800 yards from the waterfront. (U. S. Embassy, Lisbon, March 6, 1967.)



## Greece

### 1966 CATCH WAS UP SLIGHTLY

The Greek catch in 1966 was estimated at 108,100 metric tons (up 1.4 percent from 1965). Of that total, 29,600 tons (up 9.2 percent) came from deep-sea waters, mainly the Atlantic; 66,500 tons (down 6.3 percent) from Greek and Mediterranean waters; and 12,000 tons (up 41.6 percent) were taken from inland waters.

Five vessels were added to the deep-sea fleet during 1966. Ten more are expected to be added this year.

A company was set up in February 1967 by the Hellenic Industrial Development Bank (ETVA), a quasigovernmental financial institution, to organize the production and marketing of the deep-sea catch.

Fishing in the Mediterranean was generally poor and resulted in the 6.3-percent catch decline. The increased production of fish in inland waters was achieved with the aid of a program sponsored by the Greek Government. Under it, rivers and lakes were stocked with fast-growing species, particularly trout. (U. S. Embassy, Athens, March 16, 1967.)

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### ATLANTIC FREEZER FLEET INCREASES

The Greek freezer trawler fleet, 37 vessels at end of 1966, landed 29,582 metric tons of frozen fish in 1966, compared with 27,073 tons in 1965 and 21,039 tons in 1964. The vessels fish in the Atlantic off Africa's Northwest Coast.

Although total catches have increased as fleet expanded, the average annual catch per vessel has dropped from 1,095 tons in 1962 to 954 tons in 1966. Wholesale prices at point of first sale for frozen fish averaged \$394 a ton in 1966, compared with \$383 a ton in 1965. ("Alieia Fishing," Jan. 1967.)







Cleaning salmon. (Photo: USIA/National Archives)

# ASIA

## Japan

### FISHERIES AGENCY BUDGET IS UP FOR FY 1967

The Japanese Government has adopted the budget for fiscal year 1967 (April 1967-March 1968). Estimates for the Fisheries Agency, Ministry of Agriculture and Forestry, total 26,597 million yen (US\$73.9 million), up about \$6.6 million, or 9.74 percent, over FY 1966's \$67.3 million.

Funding for some proposed FY 1967 programs:

Program	FY 1967		FY 1966	
	Proposed Budget		Regular Budget	
	Yen	US\$	Yen	US\$
	. . . . . (1 Million) . . . . .			
Fishing port improvement . . . . .	13,465	37.40	11,379	31.61
Fishery technological improvement . . . . .	1,013	2.81	933	2.59
Overseas fisheries development . . . . .	586	1.63	424	1.18
Marine resources cultivation and conservation	509	1.41	484	1.34
Fishery products processing & marketing improvement . . . . .	367	1.02	351	0.97
Fishery cooperatives consolidation . . . . .	30	0.08	-	-

#### New Wireless System Proposed

The budget provides for the "fishery technological improvement" program a new wireless communication system to forecast hydrographic and fishing conditions. This system will be added to existing facsimile and radio communication systems.

The "overseas fisheries development" program includes operation of the new government research vessel (scheduled for completion this fall) in exploratory purse-seine fishing off New Zealand. The results will determine the extent to which the government will license the operation of high-seas purse-seine vessels in the future.

The only new program proposed for FY 1967 is the consolidation of the Nation's 1,400 fishery cooperatives in 4 years to improve their administration. ("Suisan Keizai Shimbu," March 2, 1967.)

\* \* \*

### TUNA PACKERS SET BY 1967 EXPORT RULES

The Japan Tuna Packers Association adopted on March 8 these regulations governing canned tuna exports for business year (BY) 1967 (April 1967-March 1968):

1. Quantity making up one case: Tuna packed in 7-oz. 48s, 13-oz. 24s, and 66½-oz. 6s will count as one case. 3½-oz. 48s will comprise half a case.
2. Sales restrictions:
  - a. Canned tuna in brine (excluding grade "B" packs) for export to the U.S. will be consigned to Canned Tuna Sales Co.
  - b. Grade "A" canned tuna packed in brine will be sold for export only to U.S.
  - c. Grade "B" canned tuna packed in brine or oil will not be sold for export to U. S.
  - d. Canned tuna not packed in brine or oil, but subject to U. S. import tariffs applicable to canned tuna in brine and oil, will not be sold for export to U. S.
  - e. Exports of canned tuna not consigned to the Sales Co. must be approved by Japan Tuna Packers Association.
3. The BY 1967 quota of canned tuna in brine for export to the U. S. has been set at 2.6 million cases--an increase of 100,000 cases from BY 1966. About 2.34 million cases will be allocated to exporters on past performance records, and 260,000 cases were unassigned. The unassigned quota will be allocated to exporters who have used up their quotas: During each 6-month period, 130,000 cases will be offered on a first-come basis; not more than 4,000 cases will be sold per Association member.
4. Price restrictions: Canned tuna consigned to the Sales Co. will not be sold below the following Association-set minimum prices.

## Japan (Contd.):

Classification	Can Size	Price Per Case	
		Yen	US\$
White meat solid	13-oz. 24s	2,970	8.25
" " "	7-oz. 48s	3,200	8.89
" " "	3 $\frac{1}{2}$ -oz. 48s	1,860	5.17
" " "	6 $\frac{1}{2}$ -oz. 6s	3,420	9.50
White meat flake	7-oz. 48s	2,330	6.47
Light meat solid	13-oz. 24s	2,330	6.47
" " "	7-oz. 48s	2,380	6.61
" " "	3 $\frac{1}{2}$ -oz. 48s	1,460	4.06
" " "	6 $\frac{1}{2}$ -oz. 6s	2,850	7.92

Source: "Suisancho Nippo," March 9, 1967.

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### EXPORTS OF FISHERY PRODUCTS ROSE 9.5% IN 1966

Exports of fishery products from Japan in 1966 totaled \$362 million--an increase of 9.5 percent over 1965, reports the Japanese Export Trade Organization (JETRO). However, this was only 3.7 percent of total exports of \$9,776.34 million (15.7 percent more than 1965). Exports of marine products are becoming less important each year. The reason: Exports of heavy industry goods remain high, but the production of marine products cannot keep pace with increased domestic demand; it is becoming more difficult to obtain raw fish for export. Also, international regulations of resources are becoming more restrictive, and domestic production of fish in developing countries is increasing.

lightmeat tuna for Italy and other European markets was maintained because of the general poor catch.

Exports of frozen broadbill swordfish were almost the same as 1965--7,194 tons valued at \$6,272,000, up 1 percent. This shortage of local supply was due primarily to a poor catch in U.S and Canadian waters.

Exports of sea bream and squid taken by trawl in the Atlantic Ocean decreased because of a poor catch--despite more fishing boats. Also, Greece, Italy, and other major markets limited import of those species. Exports of frozen salmon and whale meat decreased 49.5 percent due to international restrictions on catch and increased domestic demand.

Exports of frozen shrimp increased 69.4 percent--2,477 tons in quantity and \$5,170,000 in value. The reason: British consumer preference for high-quality shrimp.

The production of dried or salted marine products decreased because of reduced catch by coastal fisheries. But increasing were exports of boiled and dried fish ("katsubushi," etc.) for the Ryukyus, shark fin for Hong Kong and Singapore, abalone for Hong Kong, and dried kelp ("kombu") for Southeast Asia.

Exports of canned salmon totaled 1,803,000 cases worth \$38,240,000--down 37.3 percent. The reason: international restriction on catch and an increased production of canned pink salmon in Canada, the major competitor of the U. S. in salmon export.

### Canned Tuna Exports Soared

Exports of canned tuna, a leading commodity, increased 33.1 percent (5,281,000 cases at \$47,559,000). Although export of canned tuna in water to the U. S. was rather poor because of high price in first half, the market improved during the second half. Exports of canned tuna in oil and seasoned tuna increased appreciably.

Among the bluefish (canned mackerel, saury, sardine, and horse mackerel), exports of canned mackerel nearly doubled (99.7 percent). The 1965 total was 3,589,000 cases worth \$18,232,000.

Exports of finback whale oil to Europe decreased sharply due to increased regulations of Antarctic whale catch and reduction in land-based whaling. The export of sperm oil to the

Japan's Exports of Marine Products for 1966

	1966	1965
	. . . . . (US\$1,000) . . . . .	
<b>Fresh and frozen products:</b> . . .	118,171	88,837
Fish . . . . .	106,697	76,082
Crustacea and molluscs . . .	8,507	6,560
Others . . . . .	2,967	6,195
<b>Salted or dried products:</b> . . .	8,033	6,118
Fish . . . . .	1,699	1,448
Crustacea and molluscs . . .	2,359	1,622
Others . . . . .	3,975	3,048
<b>Canned and bottled products</b> .	142,118	138,499
Fish and whale oil . . . . .	12,936	20,916
Pearls . . . . .	64,697	64,217
Other marine products . . . .	16,096	11,961
<b>Grand total</b> . . . . .	<b>362,051</b>	<b>330,548</b>

Exports of frozen tuna totaled 177,606 tons worth \$81,622,000--an increase of 56 percent over 1965. Significantly, the price of albacore fell sharply last summer due to oversupply, but it recovered completely and remained high through 1966. Also, the high price of

## Japan (Contd.):

U.S. was not active because of the short supply. So, export of whale oil decreased 39.6 percent from 1965--54,469 tons at \$12,241,000.

The export of pearls, which has grown rapidly in past 4-5 years, did not increase significantly in 1966 because of delivery delays at year's end, a price rise for some sizes, and adoption of tougher inspection standards. However, the exports increased 0.7 percent. The total was 91,281 kilograms (92 tons) worth \$64,562,000. (Fishery Attaché, U. S. Embassy, Tokyo, March 16, 1967.)

\* \* \*

## 1966 SHRIMP IMPORTS SET RECORD

Japanese imports of frozen shrimp in 1966 were a record 36,156 metric tons worth 21,630 million yen (US\$60.08 million). They rose 72.8 percent in quantity and 67.1 percent in value over 1965's 21,011 tons worth 12,930 million yen (\$35.9 million). In value, shrimp accounted for about 40 percent of total fishery imports in 1966.

1966 Shrimp Imports--With Comparisons

Country of Origin	Quantity		Value	
	1966	1965	1966	1965
	. (Metric Tons) .		. (1,000 Yen) <sup>1/</sup> . .	
Mainland China	11,768.5	5,874.7	8,154,432	4,065,112
USSR . . . . .	6,517.6	1,631.7	611,943	119,511
Mexico . . . . .	4,889.3	5,209.9	4,122,522	3,626,980
Thailand . . . . .	3,690.6	1,975.7	2,614,026	1,358,540
Hong Kong . . . . .	3,170.3	2,579.2	2,470,703	1,777,712
India . . . . .	993.4	850.5	623,200	429,633
South Korea . . . . .	846.9	1,003.2	371,376	328,084
Sabah (North Borneo) . . . . .	701.5	337.4	469,824	181,838
Saudi Arabia . . . . .	840.4	-	280,861	-
Australia . . . . .	685.1	563.5	616,496	426,232
Others . . . . .	2,052.8	985.2	1,295,368	623,920
Total . . . . .	36,156.4	21,011.0	21,630,751	12,937,562

<sup>1/</sup>360 yen = US\$1.

In 1960, 625 tons were imported; in 1962, 3,642 tons. But in 1963, imports began to rise rapidly--jumping to 11,708 tons. The tremendous increase is attributed primarily to growing demand for this high-priced food brought about by increased earnings of Japanese families. ("Minato Shimibun," Feb. 24, "Suisan Keizai Shimibun," Feb. 10, 1967, and other sources.)

\* \* \*

FROZEN TUNA EXPORT  
PRICES CONTINUE DECLINE

Prices of Japanese frozen tuna for export to the U. S. continued to decline in early March. Buy offers from U. S. packers were coming in at US\$470 a short ton c.i.f. for round albacore and \$410 a ton for gilled-and-gutted yellowfin for direct shipment to the U. S. In view of this trend, some observers fear that it may be difficult to hold the line at \$450 a ton for albacore and \$400 for yellowfin.

Japanese circles do not foresee any price improvement so long as yellowfin fishing continues good in the California tuna fishery. They believe also that hasty selling by overseas-based Japanese tuna suppliers is contributing to the decline. ("Suisan Tsushin," March 7, 1967.)

\* \* \*

## TUNA FISHING IS GOOD

Japanese tuna vessels in the Pacific, Atlantic, and Indian Oceans in mid-March 1967 had good fishing in all major fishing grounds. In the Pacific, vessels in the Coral and Arafura Seas, where yellowfin and big-eyed fishery was at peak, were catching daily average of 3 metric tons.

In Indian Ocean, catches of yellowfin dropped in the western area, averaging around 2 tons a day; but in eastern part, fishing improved, with landings averaging 3 tons a day. Japanese tuna vessels in that area were reported far outnumbered by vessels of South Korea and Formosa.

In the Atlantic, Japanese long-liners were concentrated near 5° W. longitude and 6° S. latitude off west Africa (about 700 miles south of Ivory Coast) and were catching 3.5-4 tons a day. Portable-boat-carrying motherships there were averaging 14-15 tons a day. ("Katsuo-maguro Tsushin," March 17, 1967.)

\* \* \*

## "AUTO-REEL" IN TUNA LONG-LINING IS USED MORE

The "auto-reel" system in handling long-line gear is spreading rapidly in Japan. It was developed jointly as a labor-saving device by Sanmei Trading Company, Hokoku Suisan

## Japan (Contd.):

Fishing Company, and the Kanasashi Shipyards. Over 10 tuna long-liners already are using the system successfully. Another dozen vessels are scheduled shortly to adopt it.

The auto-reel pays out and reels in long-lines by remote control and automatically regulates the reeling speed. This eliminates the problem of snapping and tangling of lines during setting and retrieving operations. At first, this equipment was considered unsuitable for vessels under 300 gross tons, but the Kanasashi Shipyards late last year installed it aboard a 250-ton vessel with good results. The Sanmei Trading Company is the sole sales agent for this equipment. ("Suisan Keizai Shimbun," Feb. 21, 1967.)

\* \* \*

## JOINT COLD STORAGE ESTABLISHED

The Tokyo Terminal Cold Storage Company, financed jointly by 52 cold-storage firms (including at least 11 fishery firms), was set up on February 28, 1967. The company will rent cold-storage space and handle related business.

Under present plans, cold-storage plants of 10,000-ton capacity will be built, beginning in 1968, at 5 trucking terminals in suburban Tokyo and Yokohama. The owners believe that cold storages will alleviate mounting traffic congestion in central wholesale markets and cold-storage plants in Tokyo. They hope to improve supply and distribution, reduce costs, and stabilize prices.

All major Tokyo fishing firms are participating. The growing domestic demand for frozen fishery products has resulted in about 84 percent of cold-storage space owned by fishery firms being used for fishery products. In earlier years, much of this space was filled with nonfishery products: vegetables, fruits, beef, and ice cream. ("Suisan Keizai Shimbun," March 2 and 3, 1967.)

\* \* \*

## REFRIGERATED CARRIER LAUNCHED

The 3,300-gross-ton refrigerated carrier vessel "Seta Maru," ordered by Hoko Suisan Fishing Company's Marine Transportation Division, was launched March 17, 1967, at

the Usuki Shipyards in Hiroshima. The vessel is 334.2 feet long, 49.2 feet wide, and 25.6 feet in molded depth. It has a dead-weight tonnage of 3,500 tons and is powered by a 5,580-hp. diesel engine giving a service speed of 18 knots. ("Suisan Tsushin," March 31, 1967.)

\* \* \*

## PLASTIC FISHING BOAT DEVELOPED

A small, 1½-ton plastic fishing boat manufactured with a new processing method was shown recently in Japan. Made jointly by Mitsubishi Resin Products Research Laboratory, Asahi Fiberglass, and Takeuchi Paint Manufacturing Company, it is 10 meters (32.8 feet) long, of reinforced plastic, and cost (including engine) 1 million yen (US\$2,778).

Test runs in Tokyo Bay demonstrated its superiority over wooden boats in speed and riding comfort. Research on plastic vessels also is being conducted by the Japanese Fisheries Agency's Fishing Boat Research Laboratory in collaboration with Hitachi Chemical Industries. ("Suisan Keizai Shimbun," March 7, 1967.)

\* \* \*

## IRAQ SEEKS JOINT VENTURE WITH JAPAN

The Japanese Foreign Ministry reportedly received an inquiry from a Baghdad fishery firm seeking Japanese partners for a joint fishing enterprise in Iraq. The proposed venture calls for the operation of 4 fishing vessels, one large processing vessel equipped with a fish meal plant, a cold storage, and a warehouse. The Japanese Government reportedly supports the idea of extending Japan's technical and financial assistance to develop new fishing grounds in the Persian Gulf. ("Minato Shimbun," March 4, 1967.)

\* \* \*

## GOVERNMENT APPROVES INVESTMENT IN PERUVIAN FISH MEAL PLANT

The Japanese Government Overseas Investment Liaison Council approved on March 8 Taiyo Fishing Company's planned capital investment in the Peruvian fish meal enterprise operated by Inmarl Company. Taiyo

## Japan (Contd.):

will put up 50 percent, or US\$233,000, of Inmarl's expanded capitalization of \$466,000. It will provide Japanese fishery technicians to improve fishing efficiency. Production target is 40,000 tons of fish meal and 3,200 tons of fish oil annually until 1970.

Taiyo will undertake the marketing of 20,000 tons of fish meal--likely to Europe because Taiyo now does not have an allotment to import fish meal into Japan.

Inmarl Company, a U. S.-owned firm, was established in Lima in 1961. It operates at Cape Atico a plant served by 14 anchoveta purse-seine vessels. Meal production was 20,000 tons in 1965 and 16,000 tons during first-half 1966. ("Suisancho Nippo," March 13, 1967.)

\* \* \*

## EXPLORATORY FISHING OFF U. S. EAST COAST IS REPORTED POOR

The Japanese Taiyo Fishing Company's 369-gross-ton trawler "Taiyo Maru No. 32," exploring for shrimp and sea bream off the U. S. east coast near 35° N. latitude (off North Carolina) reported poor results, as of early March 1. Catch per day of operation averaged 5-6 metric tons of bottomfish, with very small quantities of shrimp and sea bream.

The vessel is exploring the area west of longitude 40° W. (the line running north-south through the middle Atlantic) between latitudes 10° N. and 40° N. (between New York and northern South America). This is part of Taiyo's plans to establish year-round trawl operations in the western Atlantic Ocean. But prospects now are not promising.

In 1963-64, Taiyo conducted experimental fishing in the northwest Atlantic with the converted 3,700-ton trawler "Tenyo Maru No. 3" without success. ("Shin Suisan Shimben Dokuho," March 3, 1967, and other sources.)



## Malaysia

### JAPANESE WILL ESTABLISH ANOTHER TUNA BASE IN PENANG

The Japanese trading firm Mitsui Bussan and the Atlantic Tuna Fishery Cooperative Association are planning to establish a tuna base at Penang, Malaysia. They propose to employ temporarily Formosan and Okinawan vessels pending approval of their venture by the Fisheries Agency. Already, they have contracted for 8 vessels to supply the base. This development has drawn considerable attention in the Japanese tuna industry because Penang already has a joint Japanese-Malaysian tuna base. It was established in 1959. ("Katsuo-maguro Tsushin," February 22, 1967, and other sources.)



## South Korea

### PLANS LARGE CANNERY WITH U. S. AID

The South Koreans are planning to build a cannery on Cheju Island, off Korea's southern tip, which will have an annual capacity of 1 million cases of tuna and 2 million cases of mackerel. U. S. private and Government capital reportedly will be involved.

The Japanese doubt that S. Korea will have a sufficient supply of raw fish--but they are concerned. The reported capacity of the new cannery is almost half of Japanese exports of canned tuna to the U. S., and over half all Japanese exports of canned mackerel.



## Philippines

### LAUNCH RESEARCH VESSELS

On March 29, two Philippine oceanographic research ships were christened: the "M/S Researcher I," and the "M/S Maya-Maya."

The 420-gross-ton, Japanese-built, "Researcher I" was acquired by the Philippine Government under the Japanese reparations program at about US\$770,000. It is designed

## Philippines (Contd.):

to train Filipino fishermen in modern trawl fishing, tuna long lining, oceanic observation and investigation, and research on marine fishery resources.

The "Researcher I" is equipped with a semi-air-blast system and contact freezer system using Freon-12 as a refrigerant. It has the latest model equipment for oceanic observation and research, including electronic sounding machine, fish finders, a powerful trawl winch, and line haulers for tuna long lining. There are 4 laboratories: the wet, hydrological, biological, and aquarium and fish laboratory. Living quarters, including those for scientists and officers, are air conditioned. It is the biggest research vessel of the 5 vessels now being operated by the Fisheries Commission.

### Second Vessel Built for FAO

The "M/V Maya-Maya" was built in Japan for the United Nations Food and Agriculture Organization under the UN Development Program for training Filipino fishermen in modern purse seining and deep water trawling. The project manager of the UN Special Fund project said the new trawler was acquired for about \$255,000. It is equipped with a variable pitch propeller and has an oversized winch to permit deep sea trawling. It is fitted with hydraulic deck machinery and has a main engine of 510 horsepower and 2 auxiliary engines. It also has a hydrographic winch for scientific observations. Other modern fishing equipment included are long-range radio equipment, sonar fish finder, two echo sounders, radar, radio direction finder, and electronic sea water temperature indicator. The "Maya-Maya" has a large

refrigerated fish hold and air-conditioned quarters for officers and scientists.

The deputy UN resident representative has announced that another fishing/training vessel, the "Hasa-Hasa," was ordered by FAO from an English shipbuilder. It is expected to be delivered in July 1967. (U. S. Embassy, Manila, April 5, 1967.)



## Thailand

### WILL BE HOME OF ASIAN FISHERY TRAINING CENTER

The 9-nation working party that met in Bangkok, March 13-17, 1967, to discuss southeast Asian fishery development agreed to establish an Asian fishery training center in Thailand. Representatives of Thailand, Japan, Singapore, Malaysia, India, and Indonesia, and observers from Laos, the Philippines, Vietnam, and FAO, discussed primarily the organization of the center, assessments, privileges, and exemptions.

Assessments ranging from US\$1,000-10,000 annually were proposed, but the final decision was scheduled to be made at the cabinet-level meeting in Manila on April 26, 1967. Japan reportedly will assign to the center a new 350-ton training vessel, gear and equipment, and a staff of eight. ("Shin Suisan Shimbun Sokuho," March 24, 1967.)



## South Pacific

### Australia

#### WILL CLAIM 12-MILE FISHERIES RIGHTS

The Australian Government will introduce legislation establishing a 12-mile fisheries jurisdiction, the Minister for Primary Industry said in Parliament on March 15. He said it would apply also to the external territories.

He said: "The decision does not involve any increase in the breadth of the territorial sea, which will remain at three miles. The Government has taken its decision in the light of developments in the international law of the sea over the past few years." He noted that many countries have extended their fishing limits to 12 miles: Britain, several Western European states, Canada, New Zealand, and the U. S. New Zealand enacted legislation near the end of 1965; the U. S. in October 1966.

The Minister added: "It is, of course, only right and proper that Australia should take up, and avail itself of, the rights that have become established in this field of international law. There have been suggestions at times that exclusive fisheries rights do not stop at twelve miles and indeed that they extend to all the waters above the continental shelf. The Government's legal advice is that, while the rules of international law enable Australia to exercise sovereign rights for the purposes of exploring and exploiting the mineral resources of the continental shelf as well as certain sedentary fisheries on it, international law does not at present give a coastal country sovereign rights over all fisheries in waters above the continental shelf. In practice, the adoption of a twelve mile limit for fisheries purposes will have the effect of protecting and encouraging the development of the fishing industries of Australia and the Territories. The cray (spiny lobster) fisheries, which are the basis of a valuable export industry, will be given a very substantial measure of protection. The developing prawn (shrimp) fishery and other fisheries will also be assisted. The Government will examine the position of nationals of other countries who have been engaged in fishing in the new zone between the three and twelve miles and will consider whether, as a matter of international comity, a short phasing-out period might be allowed in any appropriate case. Fortunately, so far as both Australia and the Territories are con-

cerned, there is no evidence of any substantial degree of foreign fishing having taken place in the new zone." (U. S. Embassy, Canberra, Mar. 23, 1967.)

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#### ABALONE FISHERY IS GROWING

Abalone diving, is one of Australia's newest fisheries, is growing in importance. Abalone are collected by SCUBA divers working from launches and small boats. The meat is exported frozen or canned to Asia and the Far East.

Australian production in 1965/66 amounted to 2,924,000 pounds (live weight) worth an estimated A\$285,000 (US\$318,630) exvessel. The southern coast of Tasmania is the main source of abalone, followed by Victoria, New South Wales, and South Australia. ("Australian Fisheries Newsletter," Feb. 1967.)



### Fiji Islands

#### LEAFLET DISCUSSES 1967 FISHING INDUSTRY

A new BCF leaflet states that the Pacific Fishing Company Ltd. has been operating in the Fiji Islands since 1963 from a freezing and storage base at Levuka on Ovalau Island. The company, predominantly Japanese controlled, has concentrated on catching, freezing, and exporting tuna. Japanese groups interested in the South Pacific tuna fishing industry had long hoped to secure a land base in Fiji to provision ships and store catches. Under the Protected Industries Ordinance, since repealed, the company was allowed to set up a freezing and cold-storage base at Levuka with a guarantee that no other company would be allowed to establish a plant in Fiji. The leaflet also discusses operations, condition of the company, and future prospects.

Note: FFL-112--"The Fiji Islands Fishing Industry, 1967," is available free from the Branch of Foreign Fisheries, BCF, Room 8015, U. S. Department of the Interior, Washington, D. C. 20240.





## New Zealand

### OFFERS PHASE OUT TO JAPAN ON FISHING IN 12-MILE ZONE

The New Zealand Government has decided not to join Japan in submitting the question of the legal validity of the former's 12-mile fishing limit to the International Court of Justice at The Hague. New Zealand extended its fishing zone from 3 to 12 miles in 1965.

As an alternative, the Government has consulted with Japan on the possibility of the latter's vessels having a limited phase-out period of fishing within the zone, providing New Zealand's interests are protected.

New Zealand's Prime Minister said consideration of the legal issues had reinforced his Government's views about the legal validity of extending the fishing zone. He added: "While maintaining our legal standpoint we have at the same time opened up with the Japanese Government the possibility of our reaching an agreement to enable their vessels to have a limited period of phase out of fishing in the New Zealand fishing zone provided the arrangements are in a satisfactory form embodying the conditions necessary to protect New Zealand's interest." ("The Japan Times," Mar. 19, 1967, and U. S. Embassy, Wellington, Mar. 21, 1967.)



### RADIATION AND FOOD

Consumers are hearing more and more about foods treated with some form of "radiation" to preserve them, or to kill insects or insect eggs, or to prevent sprouting, or to accomplish some other purpose.

They have begun to ask the U. S. Food and Drug Administration (FDA) questions about such "irradiated" foods.

What is radiation processing of food? Radiation, in its basic terms, consists of the sending of energy from a source to an absorber. Heat is a form of radiation and so is sunlight. To this extent, ordinary cooking is a form of radiation processing.

However, the forms of radiation to which the term is usually restricted are electromagnetic "rays" of much shorter wave length than heat and light, called "X-rays," and waves of still shorter wave lengths called "gamma rays." Also used are very tiny invisible particles of matter called electrons.

X-rays are artificially generated by machines similar to those found in a doctor's or dentist's office. Gamma rays are generally obtained from elements which are called "radioactive" because they give off these rays continually, along with tiny particles of matter. When used in food processing, the radioactive element (or "isotope") is sealed in a container so that only the gamma rays can get out. Electrons may be artificially produced by a source something like the vacuum tube of a radio and are then accelerated to higher energy by an electrical field through which the electron passes.

Radiation processing of food, then, consists of the use of X-rays, gamma rays, or electrons on food to effect changes something like the changes caused by heat. Bacteria may be killed, enzymes may be inactivated, and insects may be killed or made incapable of reproduction. ("FDA Memo for Consumers," U. S. Food and Drug Administration.)

## AFRICA

### Mauritania

#### NEW 12-MILE LAW OPPOSED BY JAPAN

Mauritania's maritime and fishery law, which was scheduled to become effective March 15, 1967, is expected to seriously impair Japanese octopus fishing off the coast. Under the law, a straight base line will be drawn across the bay in northern Mauritania between Cape Blanc and Cape Temiris, and the territorial sea limit will extend seaward from that line. The territorial waters at some points would extend 40-50 nautical miles from the shoreline and shut out Japanese octopus fishing off the coast of Cape Blanc. The Japanese Government reportedly protested strongly to Mauritania. Japan stated that she cannot recognize Mauritania's unilateral extension of territorial waters. ("Suisan Keizai Shimbun," Feb. 22, 1967.)



### Malagasy Republic

#### U. S.-BUILT SHRIMP VESSEL HEADS FOR MADAGASCAR

On March 23, the "Soavina I," the first of SIPAM's (Societe Industrielle de Peche a Madagascar) proposed fleet of shrimp vessels, arrived at Abidjan from Cayenne, French Guiana, en route to Majunga, Malagasy Republic. After minor repairs, she departed March 25 for Cape Town, South Africa, her only port call before Majunga, where she is scheduled to arrive in early May. This 65-foot Gulf of Mexico-type shrimp trawler was built at Rockport, Texas. She is powered with a 220-horsepower turbo-charged engine, has a daily freezing capacity of two tons, a storage capacity of 35 tons, and reportedly cost US\$94,000, complete, at Rockport.

#### First of a Proposed Fleet

An unconfirmed report said a Madagascar bank had built 50 shrimp boats for use in various parts of the world. It appears likely that Soavina I is the first of a proposed fleet. Whether other vessels are built would likely depend on results of the Madagascar operation.

As the first U. S.-built typical shrimp vessel to stop at Abidjan, Soavina I attracted considerable attention from local fishing interests. (Fishery Attaché, U. S. Embassy, Abidjan, March 29, 1967.)



### Kenya

#### 75% OF FISH PRODUCTION COMES FROM 5 LAKES

The Republic of Kenya's 300 miles of coast-line yield only about 25 percent of the annual fish production; the balance comes from 5 major lakes. This information is contained in a new BCF leaflet. Kenya's rapidly growing population was estimated at 9.5 million in 1965. For the past 3 years, Kenya has imported annually 1,500 to 3,000 metric tons of fishery products.

The basic method of fishing is by fixed trap, using reeds and chicken wire. To develop and modernize the marine fisheries, a new company was formed--Kenya Inshore Fisheries. The leaflet covers fish production in Kenya for 1964; fresh-water fisheries in 5 major lakes, rivers and dams, and ponds; marine fisheries; shrimp development; Malindi fish market; lobsters; tuna; and cooperatives.

Note: FFL-109--"Kenya Fisheries 1966," is available free from the Branch of Foreign Fisheries, BCF, Room 8015, U. S. Department of the Interior, Washington, D. C. 20240.



### Uganda

#### PLANS 40% FISH PRODUCTION INCREASE

Annual production of Uganda's fresh-water fisheries is about 70,000 tons, mostly tilapia (resembles American sunfish). Government plans call for an increase of over 40 percent by 1971 to 100,000 tons worth about US\$20,000,000, by increase in number and production of fish ponds, efficiency of lake fishing, and by improving marketing facilities.

Fish pond development will feature both hybrid tilapia and mirror carp, and the introduction of inboard-powered vessels up to

## Uganda (Contd.):

35 feet long equipped either for trawling or gill-netting. Other topics discussed in a new BCF leaflet are: UN Special Fund Project, canned fish, frozen fillets, ice plants, and fishermen's cooperatives.

Note: FFL-108--"Uganda Fisheries, 1966," is available free from the Branch of Foreign Fisheries, BCF, Rm. 8015, U. S. Department of the Interior, Washington, D. C. 20240.



## South-West Africa

### 1966 OUTPUT OF FISH MEAL, OIL, CANNED FISH

Production at Walvis Bay and Luderitz during 1966 was: fish meal, 204,519 short tons; fish oil, 37,846 long tons; canned fish, 133,304,090 pounds.

The catch and condition of snoek in 1966 were described as the best ever. The demand for salted snoek is high and prices good--making it more profitable to export than to can it. Canning of snoek is a considerably more complex and expensive process than canning of pilchards, for example. It is not economic under present market conditions. ("Barclay's Trade Review," Feb. 1967.)



## South Africa

### BRIGHT PROSPECTS FOR 1967 FISHING

The South African market can take over two million cases of canned pilchards this year, discloses the head of the organizations handling sales of fish meal, fish oil, and canned fish produced in South Africa. Last year the local market took over 1.6 million cases.

The canned fish markets this year tended toward increasing their off-take, especially in the local market. The industry's canning program therefore had been increased substantially over 1966. There were indications that the Philippine Government might permit imports of South African canned fish again this year.

The 1967 price for fish oil dropped from last year's. About half the anticipated production for this year already had been sold to the United Kingdom; the first shipment of about 12,000 long tons was to be taken at Walvis Bay and in the Republic during April. There also had been an increase in the domestic off-take of fish oil, and the industry was negotiating local sales. When local requirements are set, further exports will be negotiated.

The market for frozen spiny lobster in the U. S. remained healthy. The first 1967 shipment of about 20,000 cases of tails was scheduled for mid-March. A similar shipment was to be made about March 22.

Despite bad weather, catches of spiny lobsters have been good.

### Fish Meal Market Normal

The market for fish meal was normal this year, although price was somewhat lower than 1966's but still better than in 1965. Last year's abnormal price, described as unhealthy for the industry, had not affected the market.

No difficulty is foreseen in disposing of this year's production. The industry stopped selling to more accurately establish the actual production figure. Sales were to traditional markets, which took the entire production; therefore, it was not necessary to open new markets. South Africa is responsible for 12-13 percent of the world fish-meal market.

Fishing in the Republic during January and February 1967 was good. The catch was about double the same period last year.

A meeting of the Fishmeal Exporters Organization was scheduled to be held in London in April. There, the whole question of fishmeal production and exports would be reviewed again in the light of the latest catches. ("Namib Times," Walvis Bay, South-West Africa, March 3, 1967.)



## Senegal

### TUNA LANDINGS

This year's tuna fishing season has not been very rewarding for Senegal. In mid-

## Senegal (Contd.):

February, only 1,750 tons of albacore had been caught, compared to 2,450 tons landed last year by that date. Unseasonably warm weather is generally cited as the cause. Most of the 21 Basque and 22 Breton tuna boats fishing off the West African coast were inactive in the port of Dakar during March.

The largest tuna cannery, SAPAL, which employs up to 500 persons, suspended operations in early February after processing only 1,800 tons of albacore and skipjack ("lisalo"). Company officials said the lack of tuna might prevent the firm from resuming production during the balance of this season, scheduled to end in mid-May. (U. S. Embassy, Dakar, Mar. 23, 1967.)



## Sierra Leone

## 1966 CATCH DROPS SLIGHTLY

The 1966 Sierra Leone fisheries catch of about 27,000 metric tons was slightly less than 1965's. This was due largely to the repatriation of Ghanaian fishermen who operated from Sierra Leone. An encouraging aspect of the 1966 catch was the increased rate of landings per fisherman. About 18,600 tons were landed by local fishermen using canoes and traditional fishing methods; about 1,500 tons by trawlers. Also, about 6,900 tons of tuna were landed for reexport.

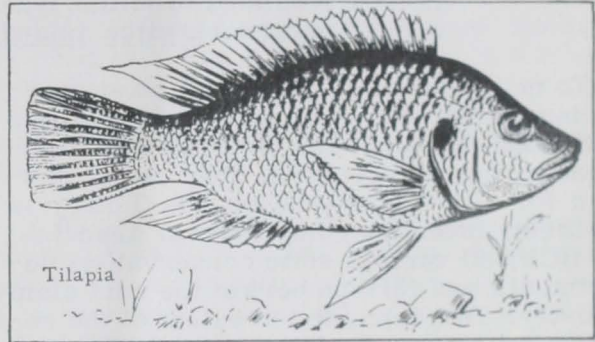
An international team of fisheries experts under the UN Development Program is expected to arrive soon to begin a five-year period of developing Sierra Leone's fishing industry, including a major survey of the sardine resources. (U. S. Embassy, Freetown, March 22, 1967.)



## Congo

## FISHERIES CONTINUE DECLINE

Congolese fish production has been declining since 1960, a new BCF leaflet states. The abandonment of most industrial fisheries on the eastern lakes, the smuggling of fish into neighboring states, and the lack of transport since independence decreased fresh-water fish production at least 50 percent by 1966. The Congolese Ministry of Agriculture estimates that 1966 fresh-water fish production was 72,000 metric tons. About 23,000 tons were harvested from lakes, largely those bordering the eastern Congo; 28,000 tons



were caught in the Congo River system; and the remainder (21,000 tons) from the rivers of the southeastern Congo, especially the Lualaba River. The most common fish found in the lakes is the tilapia, which resembles the American sunfish. The report also discusses maritime fisheries.

Note: FFL-120--"Congolese Fisheries, 1966," is available free from Branch of Foreign Fisheries, BCF, Room 8015, U. S. Department of the Interior, Washington, D. C. 20240.

